epigenomics

ANNUAL REPORT 2019

# SAVING LIVES THROUGH BLOOD-BASED CANCER DETECTION

**We revolutionize** the way of cancer diagnostics using our unique, proprietary DNA methylation biomarker technology. Epigenomics develops and commercializes patient-friendly, blood-based diagnostic tests across multiple cancer indications with high medical need. Using blood as a liquid biopsy can improve patient access to cancer screening and thereby contribute to eradicate today's deadliest cancer types such as colorectal, liver, and lung cancer. By leveraging our product pipeline and strong intellectual property, we aim to become a global leader in blood-based cancer detection.

## Epi proColon MILESTONES

**2007**
**First SEPT9 publication (Lofton-Day et al.)**

**2011**
**Epi proColon 2.0 CE marked**

**2011**
**FDA submission**

**2014**
**Publication of PRESEPT sample Data (Potter et al.)**

CONTENTS

epi pro colon®

Epi proColon is indicated for colorectal cancer screening in average-risk patients who are unwilling or unable to perform colorectal cancer screening by colonoscopy and stool-based methods. It is a qualitative, in vitro diagnostic blood test for CRC that uses real-time PCR to detect methylation of a target DNA sequence within the Septin9 gene promoter; methylation of this DNA sequence is associated with the occurrence of CRC and can be detected in cell-free DNA that circulates in the plasma. For patients, the test only requires a simple blood sample draw as part of routine healthcare provider visits. There are no dietary restrictions or alterations in medication required for the test. The sample will be analyzed at a national or regional diagnostic laboratory.

**2014**
**Publication of FIT Comparison study (Johnson et al.)**

**2016**
**April 12th – FDA approval**

**2017**
**Publication of patient adherence trial (Liles et al.)**

**2019**
**Publication of Budget Impact Model (Roth et al.)**

**2019**
**Publication of Micro-simulation Analysis (D'Andrea et al.)**

CorporateLiveWire INNOVATION & EXCELLENCE AWARDS 2019

TOP 10 IN-VITRO DIAGNOSTIC 2019
MED TECH OUTLOOK

Epi proColon is recipient of the 2019 Excellence in Molecular Diagnostics Award by Corporate LiveWire's Innovation and Excellence Awards.

Foreword by the Executive Board

# WE EXPECT A REIMBURSEMENT DECISION BY CMS IN THE 4TH QUARTER

## DEAR SHAREHOLDERS,

In 2019 and Q1 2020 Epigenomics has delivered on multiple milestones toward our goal of Medicare reimbursement for our innovative blood-based colorectal cancer (CRC) screening test, Epi proColon. First, in Q2 2019 the Centers for Medicare and Medicaid Services (CMS) formally accepted Epigenomics' request for a National Coverage Determination (NCD) review. Second, in November of 2020 a pivotal microsimulation model demonstrating the clinical utility of Epi proColon was published in the Cancer Medicine journal and third, at the end of February 2020 CMS officially "opened" the NCD which will result in a proposed coverage decision by the end of August 2020 and a final decision by the end of November 2020.

**REIMBURSEMENT FOR Epi proColon** On February 28, 2020 CMS initiated the NCD review process. Since the Food and Drug Administration (FDA) approval of our blood test in the U.S. market nearly four years ago, there has been uncertainty as to when and whether CMS will reimburse Epi proColon. Now with the initiation of the NCD review a final reimbursement decision will be made by the fourth quarter of 2020 per statutory requirement. We believe the NCD review will result in a positive outcome.

The peer-reviewed publication of the microsimulation model was our most impactful milestone in 2019. The reason is that microsimulation models are the standard by which key medical guideline societies determine the effectiveness of CRC screening methods specifically, identifying the long-term benefits and harms of a testing method. Industry terminology also refers to this as the "clinical utility" of the test. The microsimulation model developed by experts at Harvard Medical School, demonstrates that Epi proColon administered annually can reduce the incidence and mortality of CRC nearly equivalent or even better than other approved methods. In addition, when adherence is included as a variable in the model, the blood test can outperform all other CRC screening methods in terms of long-term benefits, including the reduction in CRC incidence and mortality. These data coupled our product's FDA PMA approval, we believe the NCD review outcome process will be positive based upon the precedent set in the NCD approval of a recent predecessor test for CRC.

The legislative process for reimbursement of Epi proColon remains a viable option, although political uncertainties make this path difficult to predict. We believe the NCD process is currently the most promising way to obtain reimbursement as it provides a definitive timeline.

f.l.t.r.: Albert Weber, Greg Hamilton, Jorge Garces

**FINANCIAL POSITION AND HCCBloodTest** In November 2019, we executed a capital increase with gross proceeds of EUR 8.3 million resulting in a EUR 11 million year-end cash balance. With the funds currently available, we must focus our activities on the reimbursement of Epi proColon and its market preparation. In order to achieve this goal, we will initially suspend our activities around our second promising blood test, the HCCBloodTest for the detection of liver cancer in patients with liver cirrhosis. At present, we do not have any further capacity to take the next steps in the further development of the liver cancer test. The prospective study for the test, which we started in January 2019, was completed as expected at the end of 2019. However, the publication of the results in a scientific journal is intended and is the responsibility of the scientists carrying out the study. Therefore, no results can be announced until publication.

**LOOKING AHEAD** 2020 is the tipping point for Epigenomics as we know we will have a reimbursement decision by Q4. With a positive decision the company will transform into a commercial organization with significant growth potential. We look forward to being able to keep you informed about our progress throughout the year. We also wish to take this opportunity to thank our employees for their continued dedication and hard work, our customers and partners for their loyalty and you, our shareholders, for your ongoing support and trust.

Yours sincerely

**Greg Hamilton**
(Chief Executive Officer)

**Jorge Garces**
CSO (Chief Scientific Officer)

**Albert Weber**
(Executive Vice President Finance)

# SUPERVISORY BOARD REPORT

## DEAR SHAREHOLDERS,

In 2019, further key steps were taken to get Epi proColon approved for reimbursement. The U.S. Centers for Medicare & Medicaid Services (CMS) accepted the application for reimbursement, although a high workload meant that they did not begin processing it until this February. A capital increase with shareholders' subscription rights was implemented at the end of the reporting period, followed by a successful private placement to institutional investors at the end of March 2020. We see this as a strong signal that those investors will continue to support us, especially as the world faces the challenges of the COVID-19 pandemic. Epigenomics' liquidity is thus secured until well into 2021.

**WORK OF THE SUPERVISORY BOARD** This fiscal year, the Supervisory Board of Epigenomics AG fulfilled all of the duties incumbent upon it in accordance with the law, the Articles of Association and its Rules of Procedure. It advised and monitored the Executive Board in managing the Company and kept itself apprised at all times of the Company's operating performance, the key challenges it faced, and the Executive Board's assessment as to the overall financial position and risk management of the Company. All corporate planning, including financial, capital expenditure and human resources planning, as well as general business performance was reported on a regular basis by the Executive Board. To the extent that German corporate law or the applicable Rules of Procedure required consent for certain decisions or actions by the Executive Board, such consent was granted by the Supervisory Board after thorough deliberation and careful examination of oral reports and written documentation, which were provided.

The reimbursement of Epi proColon in the U.S. was one of the most important issues discussed regularly at Supervisory Board meetings in fiscal year 2019. Further important topics included the capital increase through the issue of subscription rights in November, the overall financial situation of the Company, strategic options and legal issues. Furthermore, we reviewed and discussed potential business transactions on a case-by-case basis where the terms and conditions of existing or pending cooperation agreements were strategic in nature.

The Supervisory Board adopted the annual financial statements and approved the consolidated financial statements. The Supervisory Board always took into account in its work the interests of Epigenomics' shareholders.

During 2019, six meetings of the Supervisory Board with the Company's Executive Board took place on January 22/23, March 26, May 15, July 16/17, October 7/8 and December 4/5. These meetings were held in Berlin. All members of the Supervisory Board attended all of the meetings.

In addition to the very close dialog between all members of the Supervisory and the Executive Board in joint plenary meetings, detailed written and oral reports of the Executive Board were provided to the Supervisory Board within the framework of supplementary conference calls and individual discussions. Thus, the Supervisory Board was continually kept up to date on the Company's current business situation and key events throughout the year.

At its meeting on December 4/5, 2019, the Supervisory Board considered in detail the operational budget, financial planning and human resource allocation plan and approved the Company's targets for fiscal year 2020.

It also approved the Executive Board's remuneration.

For each formal meeting of the Supervisory Board, in the presence of the Executive Board, all members of the Supervisory Board received comprehensive written reports in advance, prepared by the Executive Board with the input of the respective managers of the Company. These detailed documents were suitable for analyzing and discussing all relevant topics of the respective agenda of the Supervisory Board meetings and for adopting all required resolutions. Written minutes of all official meetings and telephone conferences were prepared. Whenever necessary, resolutions were also passed by written vote in accordance with the Company's Articles of Association.

**ORGANIZATIONAL CHANGES IN 2019** The Annual General Shareholders' Meeting on May 15, 2019 resolved to increase the number of Supervisory Board members from four to five. Mr. Franz Thomas Walt was elected as the new member of the Supervisory Board. Mr. Walt is Chief Executive Office of Quotient Ltd., has held various management positions in the pharmaceuticals and diagnostics industries, and was furthermore appointed to the Audit Committee established by the Supervisory Board.

**CONFLICTS OF INTEREST** No conflicts of interest for the members of the Supervisory Board arose during the reporting year.

**COMMITTEES** The Supervisory Board established an Audit Committee chaired by Prof. Günther Reiter, who was nominated as the main expert for financial reporting and audit matters in accordance with Section 100 of the German Stock Corporation Act (Aktiengesetz – AktG). In this role, he is responsible for communicating regularly with the Executive Board, the Senior Manager Controlling and with the auditor of the Company, in order to provide advice on the preparation of financial reports, audits and quarterly financial statements. He reports regularly to the full Supervisory Board, highlighting any findings and observations in this area. At the same time, the Supervisory Board designated Ann Clare Kessler, Ph.D., as the main expert on remuneration and nomination matters. Heino von Prondzynski was designated the main expert on corporate governance matters.

**CORPORATE GOVERNANCE** The Supervisory Board continuously reviewed all issues of legal and regulatory compliance by the Company. Given the rapidly and constantly changing economic environment and in light of the current financial position of the Company, the Supervisory Board also discussed in detail issues relevant to an effective risk management system. Both the Executive Board and the Supervisory Board regard the commitment to sound corporate governance as crucial to reinforcing the Company's credibility with current and future shareholders, business partners and employees. In October 2019, the Executive Board and the Supervisory Board published an update of the October 2018 Declaration of Compliance with the German Corporate Governance Code (the "Code") pursuant to Section 161 AktG, which is included in this annual report and is also permanently available on Epigenomics' website (www.epigenomics.com/news-investors/corporate-governance).

In its declaration, the Company has committed itself to adherence to the Code, and only deviates in explicitly mentioned, Company-specific cases from its recommendations.

In accordance with Section 111 (5) AktG, the Supervisory Board has set a quota for female board members equal to 1/3 of the number of seats on the Supervisory Board. The number of female board members was two and therefore above the quota.

**AUDIT OF THE ANNUAL FINANCIAL STATEMENTS** The audit firm Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft (Baker Tilly), Düsseldorf, audited the annual financial statements and the corresponding management report of Epigenomics AG for fiscal year 2019, which were prepared in accordance with the principles of German commercial law, as well as the consolidated financial statements and the Group management report for fiscal year 2019, which were prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union (EU).

Baker Tilly did not raise any objections in relation to either the annual or consolidated financial statements and issued an unqualified audit opinion for each.

The consolidated financial statements and the Group management report were prepared in accordance with Section 315e Paragraph 1 HGB in accordance with International Financial Reporting Standards (IFRSs), as adopted by the EU. Baker Tilly's audit was conducted in accordance with German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany ("Institut der Wirtschaftsprüfer in Deutschland e. V."). The audit reports and the audit opinions were submitted to the Supervisory Board by the Executive Board in a timely manner.

Baker Tilly's audit reports were presented to all members of the Supervisory Board and were discussed in depth at the meeting on April 29, 2020, in the presence of the auditor, who reported on the main findings of the audit. At this meeting, the Executive Board presented the 2019 annual financial statements and 2019 consolidated financial statements, as well as the Company's early risk identification system. Baker Tilly also provided a report on the scope, focal points and findings of the audit. As a result of its own observations and examinations, the Supervisory Board raised no objections, accepted and confirmed the findings of the audit. The Supervisory Board, in the presence of the auditor, formally approved the annual financial statements and the consolidated financial statements as of December 31, 2019, without raising any objections or making any amendments. By the Supervisory Board's approval, the 2019 annual financial statements of Epigenomics AG are thus adopted as submitted in accordance with Section 172 AktG.

With respect to the Company's existing internal control and early risk identification system, the auditor stated to the Supervisory Board that in its opinion these systems are suitable to meet all legally intended requirements.

The Supervisory Board would like to thank the Executive Board, the senior management and all employees of Epigenomics for their commitment and dedication throughout fiscal year 2019.

Berlin, April 2020

On behalf of the Supervisory Board

**Heino von Prondzynski**
(Chairman of the Supervisory Board)

## BIG MARKET[1]

**$0.9bn** → **$1.3bn**

2018 — 2023

## DEADLY DISEASE

**No.2**
CAUSE OF CANCER DEATH 2019

**No.3**
MOST COMMON CANCER

**8.4%**
OF ALL CANCER DEATHS

**4.2%**
WILL BE DIAGNOSED WITH CRC

**90%[2]**
STAGE I AND II 5 YEAR SURVIVAL RATE

**14%[2]**
STAGE III AND IV 5 YEAR SURVIVAL RATE

## U.S. GOVERNMENT GOALS

**80%**
GOAL: SCREENING RATE

**~31%**
ACTUAL: REMAIN UNSCREENED

## FACTS

**43%[3]**
OF NEW CASES RESULT FROM SCREENING NON-COMPLIANCE

**76%[4]**
OF CRC DEATHS RESULT FROM NON-COMPLIANCE

**$13bn**
SPENT ON COLORECTAL CANCER

**>$9.8bn**
SPENT ON CASES FROM UNSCREENED INDIVIDUALS

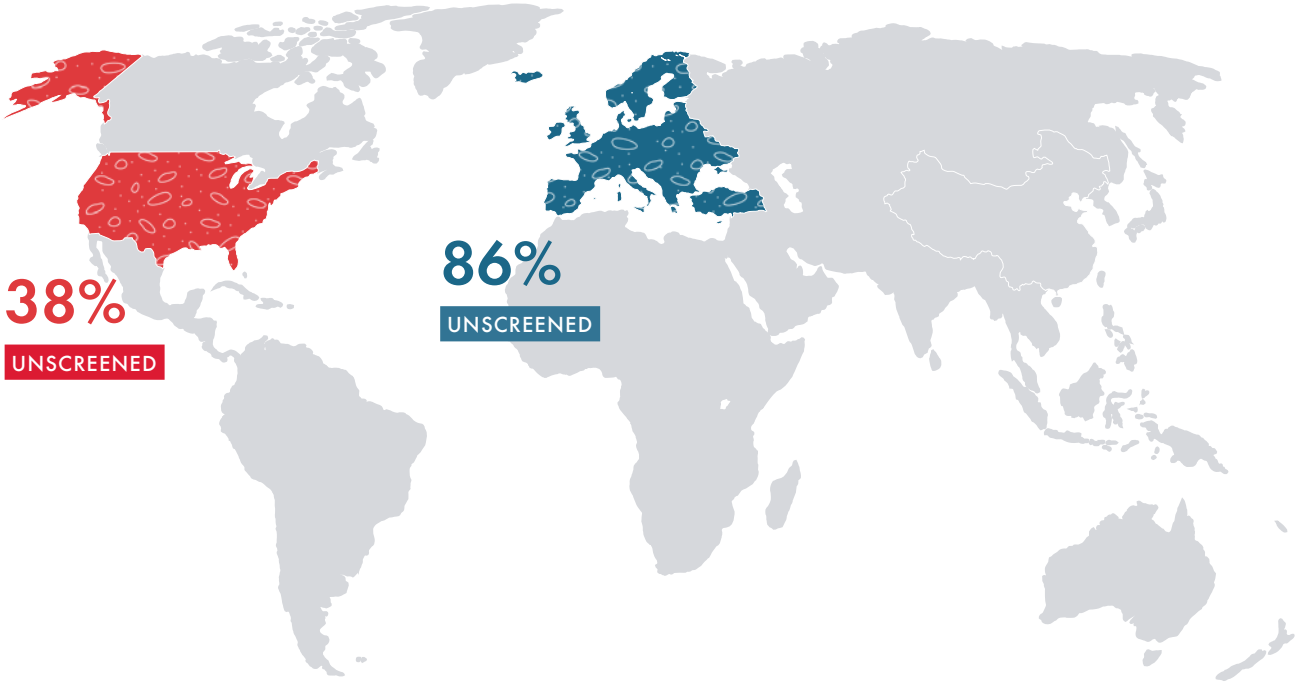
[1] https://www.gminsights.com/industry-analysis/in-vitro-colorectal-cancer-screening-tests-market-report

[2] Colorectal Cancer Facts and Figures, 2017-2019, American Cancer Society, 2017

[3] Kaur A et al. (2016) Recognizing diagnostic gap in colorectal cancer, Intern Med 6:3. DOI: org/10.4172/2165-8048.1000219

[4] Doubeni C et al. (2018) Modifiable failures in the colorectal cancer screening process and their association with risk of death, Gastro, DOI: 10.1053/j.gastro.2018.09.040.

# 2.3bn OF PEOPLE WORLDWIDE ARE OF SCREENING AGE




## U.S.A.

Epi proColon has received approval from the U.S. Food and Drug Administration (FDA) and is currently marketed in the United States. Epi proColon has been adopted by the National and several Regional/Health System Laboratories. Epigenomics is working with Medicare to establish a National Coverage Determination. Most recent Microsimulation Model has been shared with Medical Societies for inclusion in recommendations.

## EUROPE & ASIA

Epi proColon has received CE Mark. Epi proColon is available via laboratories in Germany, Spain, France, Turkey, Czech Republic, and Singapore. This last year, Epi proColon has been expanded to Kuwait, Bahrain, and Romania. International distributors and laboratories are working with regional government screening programs for inclusion and payment of Epi proColon.

# EARLY DETECTION SAVES LIVES!

Colorectal cancer remains a leading cause of cancer death throughout the globe. Not enough patients are being screened regularly. By increasing screening and detecting more cancers early, the costs and deaths from this disease both can be addressed.

* Early
* Easy
* Accurate

} Detection

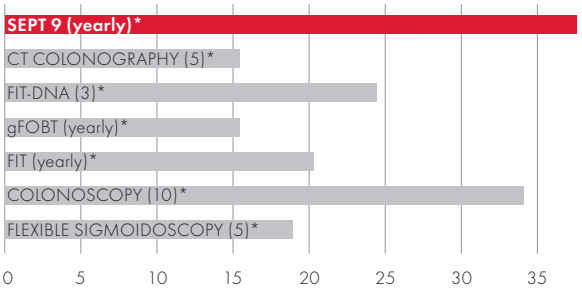
## Reduced mortality rate

Substantial evidence supports the benefits of early detection as it's linked to 5-year survival rates as high as 90%. However, when detected at later stages, survival rates drop to around 14%. As about 43% of new, later stage CRC diagnoses and 76% of deaths are attributable to people who are not up-to-date with screening.

## Lower overall healthcare costs

As the cost of healthcare continues to rise, insurers and governments are finding ways to identify and address the risks and impacts of conditions like cancer in order to defray costs. Providing cancer screening will identify cancers at earlier stages, improving outcomes, thus reducing treatment costs. With colorectal cancer, screening followed by diagnostic colonoscopy can essentially prevent cancer before it begins.

**CRC cases averted per 1,000 screened (reported adherence)**



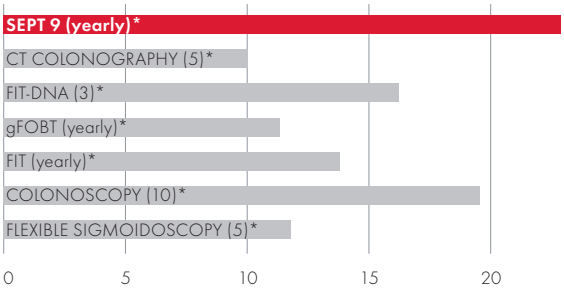

No. of events/1,000 screened
*Examination interval in years

## Colorectal screening prevents cancer

There are many screening methods available. The clinical effectiveness is determined by the performance, interval, and willingness of patients to complete the screening. An annual Epi proColon has similar clinical effectiveness as colonoscopy and stool testing if assuming 100% adherence. At the reported adherence rates, only Epi proColon and colonoscopy surpass all other screening methods.

**»I welcome a yearly using a blood test. This can be done at the same time as my other physical bloodwork.«**

**CRC deaths averted per 1,000 screened (reported adherence)**




No. of events/1,000 screened
*Examination interval in years

## Colorectal cancer screening saves lives

Although all methods seem to have similar clinical effectiveness, the consideration of patients willingness to complete the test or adherence demonstrates the true effectiveness. Annual Epi proColon and colonoscopy provide superior CRC death aversion compared to other methods.

**»If we want to prevent CRC deaths, we need to address the patient who remains unscreened. A blood test addresses the reasons patients avoid screening.«**

# A MICROSIMULATION MODEL BY HARVARD MEDICAL SCHOOL

A micro-simulation model, developed and validated at Harvard Medical School, evaluated the impact of adherence rates, testing intervals and clinical performance of different screening strategies on CRC incidence and mortality. Results show that adherence rates and screening intervals can have a profound impact on the effectiveness of screening strategies as compared to one-time sensitivity and/or specificity. Annual Epi proColon (SEPT9 (1Y)) showed a clinical performance similar to that of colonoscopy. The study has been published in Cancer Medicine.

**32%**
CHOSE COLONOSCOPY

**ONLY 15%**
OF THE NON-COLONOSCOPY CHOOSE A STOOL TEST

**83%**
OF THE NON-COLONOSCOPY CHOSE A BLOOD TEST

**Choice Matters.**
**172 patients were given a choice of screening methods.**

# ADHERENCE IS KEY!

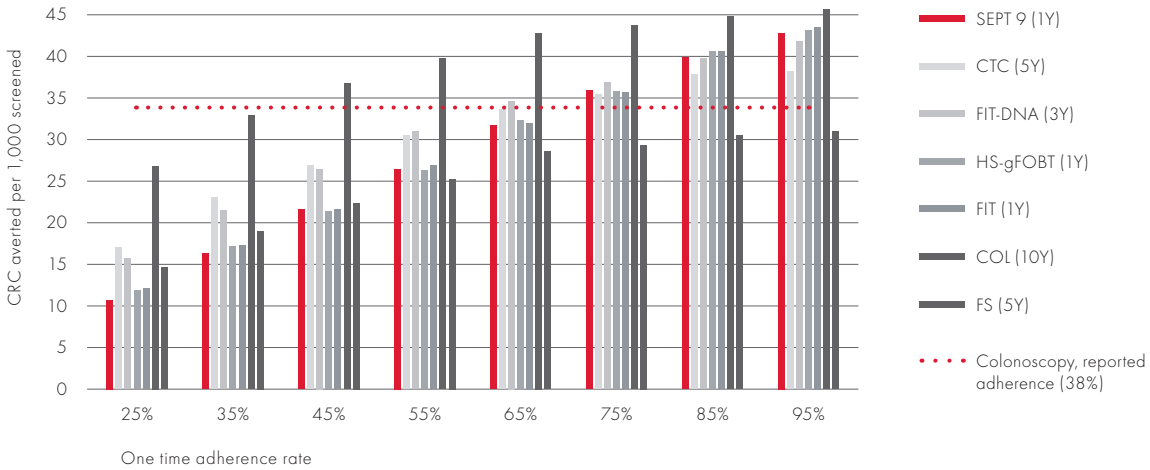
Colorectal cancer screening saves lives and money. Patient reluctance against colonoscopy or stool-testing has impeded the value of colorectal cancer screening. A non-invasive blood-test has proven to be a viable option in 'unscreened' patients. The control of colorectal cancer screening shifts from the patient to the healthcare provider. Blood-testing can be performed at the same time as other routine blood tests.

**A non-invasive blood-test** addresses the patient barriers associated with typical colorectal cancer screening methods (colonoscopy and stool-testing). Increasing participation, especially in the reluctant 'unscreened' patient population will result in clinical effectiveness and economic benefits.

**Addressing the 'unscreened' challenge.** Patients who are non-compliant with screening guidelines result in about 43% of new, later stage CRC diagnoses and 76% of CRC deaths. A new screening modality and strategies designed to reach this population could dramatically impact health outcomes. The Epi proColon blood test addresses the patient-resistant barriers historically associated with invasive visual imaging or stool-based testing. Providing a blood sample is the most common and accepted method of testing that has the potential to increase screening participation. Persons with positive results are referred to colonoscopy to remove polyps or identify cancers at an earlier stage when effective, less costly intervention is possible.

Participation trials have demonstrated that 99.5% of previously 'unscreened' patients will complete a blood test. Most importantly, positive Epi proColon patients were then motivated to complete the follow-on colonoscopy. Based upon the Harvard Medical School microsimulation data, Epi proColon compliance rates above 70% provide equivalent performance to that of traditional colonoscopy or stool testing.

**CRC averted assuming different adherence rates for modalities**



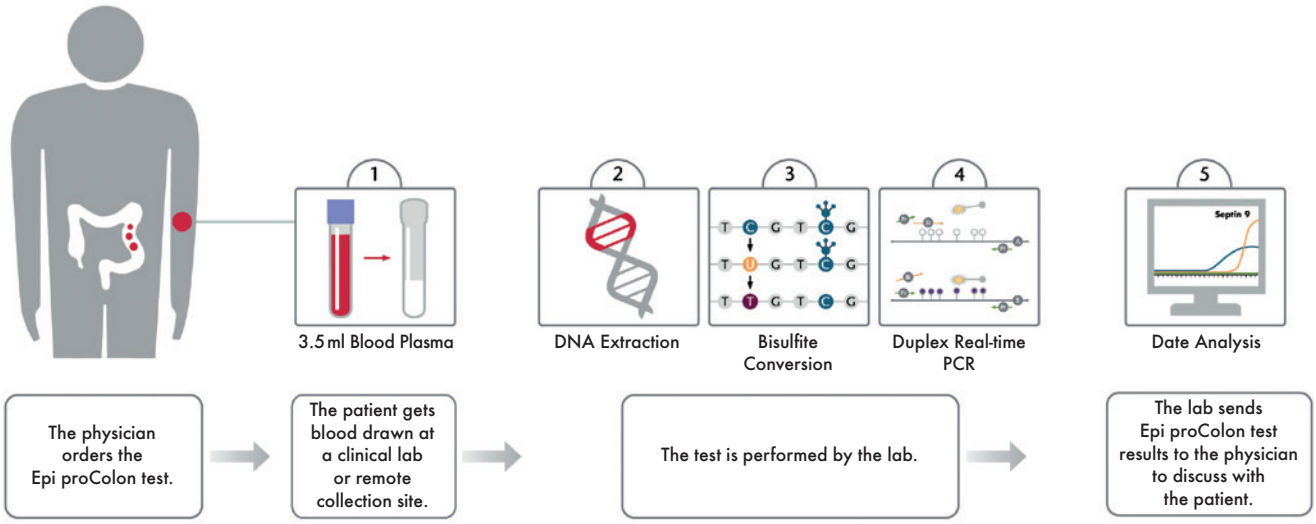

**Epi proColon** is a molecular test that detects methylated SEPT9 DNA in blood. DNA methylation of the SEPT9 gene is increased in colorectal cancer. Methylated SEPT9 tumor DNA is shed into the bloodstream and displays a unique methylation pattern that is detectable in plasma by Real-Time PCR. Each kit contains a Plasma Quick Kit (DNA extraction, bisulfite conversion), PCR Kit, and Controls.

# THE FIRST AND ONLY FDA-APPROVED BLOOD TEST FOR CRC-SCREENING

epi pro colon®

# SIMPLE COMPLIANCE

A non-invasive blood-test is likely to increase participation in preventive cancer measures, as it is likely to encounter less reluctance than alternatives like colonoscopy or a stool-test.




**The value of a blood test.** For those people who have a history of not completing screening by guideline recommended methods, there is now a blood test. Epi proColon is the first and only FDA approved blood test for colon cancer screening. Benefits of Epi proColon include:

* No pretest preparation
* No stool handling
* No dietary or medication restrictions
* Available through national laboratories
* Blood collected along with other routine bloodwork
* Shifts responsibility from the patient to the healthcare provider

**95%**
WILL COMPLETE A BLOOD TEST

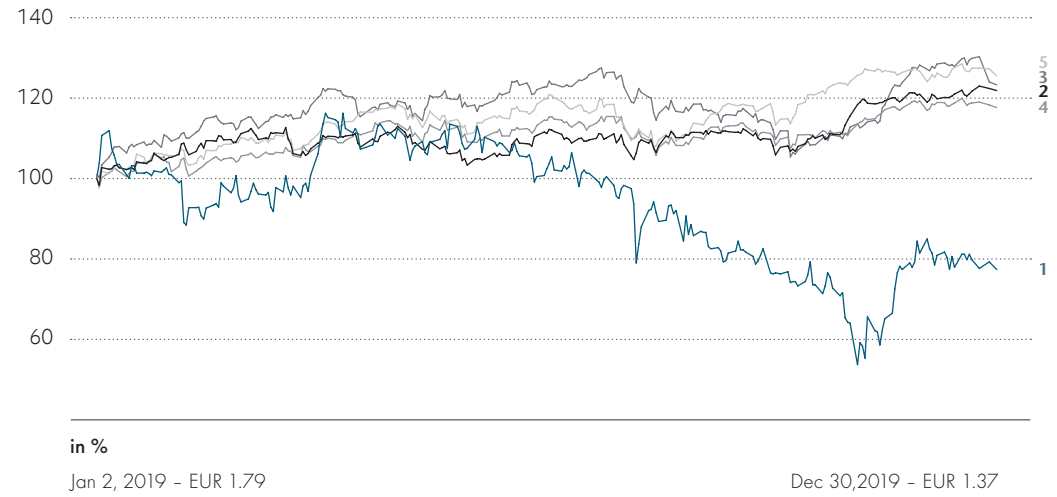
**42%**
WILL COMPLETE A STOOL TEST

**38%**
WILL COMPLETE A COLONOSCOPY

# OUR STOCK

## SHARE PRICE DEVELOPMENT CHARACTERIZED BY THE LACK OF A BREAKTHROUGH IN THE REIMBURSEMENT DECISION IN THE U.S.A.

### SHARE PRICE PERFORMANCE IN 2019




1 Epigenomics AG 2 Prime Pharma Performance-Index 3 Prime Biotech Performance-Index 4 TecDAX Performance-Index 5 DAX Performance-Index

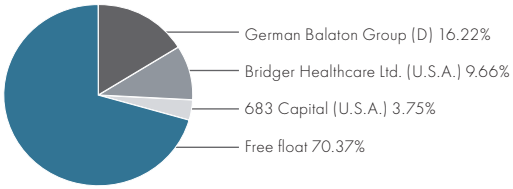
Epigenomics' share price started the year at EUR 1.79 (Xetra) and reached its high for the year at the beginning of April 2019 with a price of EUR 2.08. Subsequently, the share price moved sideways and closed on June 4, 2019, at EUR 2.02, for the last time in 2019 above the EUR 2.00 mark. In the further course of the year, the share price development was negatively impacted by the lack of progress regarding the opening of the National Coverage Determination (NCD) of the Centers for Medicare & Medicaid Services (CMS). Other initiatives have not yet resulted in a positive reimbursement decision in the United States either. After the company published its decision to increase capital on October 17, 2019, the share was quoted at EUR 1.30 at the close of trading. On November 4, 2019, the share came under strong selling pressure without any discernible fundamental reason. At the end of the trading day, the share closed at a price of EUR 0.93, which was also the low for the year. With approximately 3.2 million shares traded on that day, the Xetra trading volume was well above the annual average of 74,696 shares. Following the successful placement of the capital increase and the publication of the microsimulation model developed by experts from Harvard Medical School in the journal Cancer Medicine at the end of November, the share price recovered. At the end of 2019, the share closed at EUR 1.37.

### CHANGES IN SHARE CAPITAL/CORPORATE ACTIONS

The number of Epigenomics shares outstanding increased in fiscal year 2019 as a result of a capital increase against cash contributions with subscription rights for shareholders in November 2019 by issuing 7,506,152 new shares and amounted to 43,527,692 shares as of December 31, 2019. Market capitalization at the end of 2019 was approximately EUR 59.6 million.

## SHAREHOLDER STRUCTURE AS OF FEBRUARY 28, 2020

On February 17 2020, the following shareholders held more than 3% each of Epigenomics AG




A good 70% of Epigenomics' shares are in free float. The largest proportion is held by retail shareholders. Recent voting rights notifications are available on Epigenomics' website under "News & Investors".

**Key data on Epigenomics' shares**

| | |
|---|---|
| ISIN | DE000A11QW50 |
| Security code number (WKN) | A11QW5 |
| Ticker symbol | ECX |
| Stock exchange | Frankfurt Stock Exchange Regulated Market (Prime Standard) |
| Issued shares (December 31, 2019) | 43,527,692 |
| Free float (February 28, 2020) | 70.37% |
| Market capitalization (December 31, 2019) | EUR 59.4 million |
| Year-end closing price | EUR 1.37 |

## TRANSPARENT DIALOG WITH SHAREHOLDERS

Epigenomics maintains ongoing and active dialog with the capital markets. Throughout 2019, the company hosted regular conference calls for investors and analysts to discuss the financial results and provide updates on developments within the Company. Epigenomics' Executive Board also presented in multiple investor meetings.

At Epigenomics AG's Annual General Shareholders' Meeting in Berlin on May 15, 2019, the shareholders voted in favour of all of the Boards' proposals by a large majority.

## ANALYST COVERAGE AND ADR PROGRAM

In 2019, analysts from Pareto Securities, Warburg Research, and goetzpartners securities followed the performance of Epigenomics' shares and regularly published their research notes and their recommendations. The analysts' share price targets are published on Epigenomics' website in the "News & Investors" section.

Epigenomics' ADRs are traded on the OTCQX International market in the United States, a segment reserved for high-quality non-U.S. companies. These ADRs are tradable U.S. dollar-denominated certificates representing ordinary shares of the Company at a ratio of five ordinary shares to one Epigenomics ADR. Bank of New York Mellon acts as the Company's "Principal American Liaison" (PAL) on OTCQX and is responsible for providing professional guidance on OTCQX requirements.

| Epigenomics AG – ADR | OTCQX trading |
|---|---|
| Structure | Sponsored Level 1 ADR |
| Ratio | 1 ADR = 5 shares |
| Ticker | EPGNY |
| CUSIP | 29428N102 |
| ISIN | US29428N1028 |
| Depositary bank/PAL | BNY Mellon |

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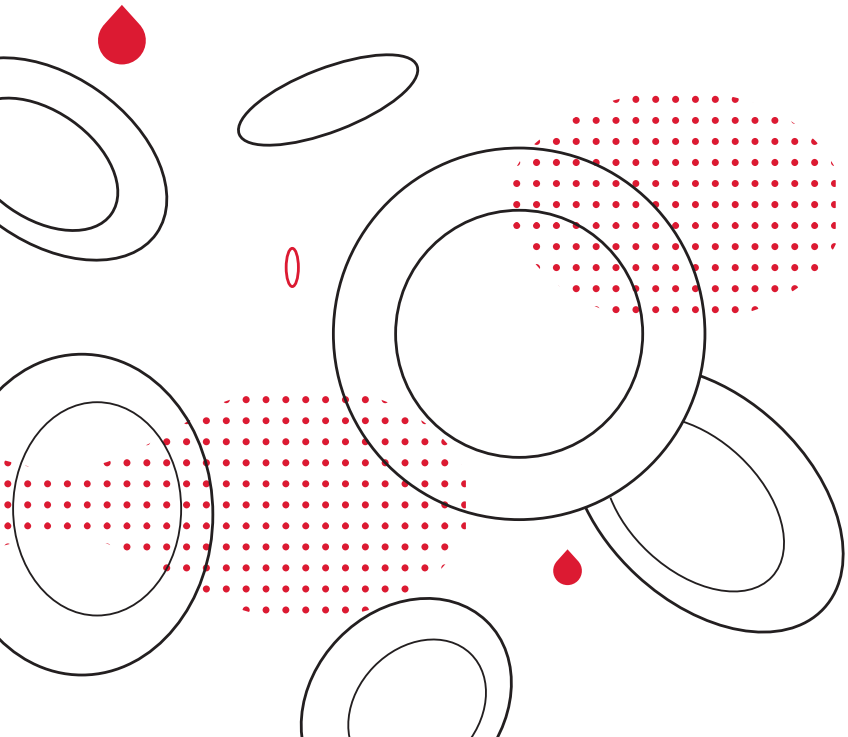


# GROUP MANAGEMENT REPORT

## FUNDAMENTAL INFORMATION ABOUT THE GROUP – ORGANIZATION, BUSINESS ACTIVITIES AND STRATEGY

### GROUP STRUCTURE, BUSINESS ACTIVITIES AND PRODUCTS

Epigenomics AG (the "Company", the "Group" or "we") is a molecular diagnostics company focusing on developing and commercializing in vitro diagnostic (IVD) liquid biopsy tests for the screening, early detection and diagnosis of cancer. We develop our products based on a unique and proprietary technology platform using DNA methylation. Our research and development (R&D) activities are aimed at identifying suitable biomarkers in human tissue and developing and patenting the corresponding IVD tests.

We are currently developing and commercializing IVD tests for colorectal cancer (CRC), liver cancer and lung cancer. Our cancer molecular diagnostic products address a significant but largely unmet medical need, providing patients and physicians with the benefits of more user-friendly, superior diagnostic tests.

Our lead product – Epi proColon – is a blood-based test for the early detection of CRC using our proprietary DNA methylation biomarker Septin9. The test is CE-marked and has been on the European market in its current version since 2012. In April 2016, the U.S. Food and Drug Administration (FDA) approved Epi proColon as the first and, thus far, only blood-based CRC screening test for commercialization on the U.S. market.

In 2017 we received CE certification for our second product, Epi proLung, a test used to screen for lung cancer, thus completing its development. The product is a reflex test that is aimed at clarifying indeterminate results with the aim of enabling earlier identification of illness, improving the outcome of therapy and lowering costs of treatment.

In 2018, our HCCBloodTest became another product in our portfolio to receive the CE mark, thereby making it ready for commercialization in Europe. The blood test is used to detect liver cancer in patients with cirrhosis of the liver. We are currently working to have the test trialed in relevant studies so that in the medium term we can apply to the healthcare authorities for market approval in the U.S.A.

The primary input factors in developing and manufacturing our products are our employees and intangible assets in the form of intellectual property, i.e., patents and licenses.

Epigenomics AG is headquartered in Berlin, Germany, and operates a wholly owned subsidiary in the U.S.A., Epigenomics, Inc., which is registered in Seattle, WA and primarily operates in San Diego, CA. Our business activities consist primarily of targeting the important international markets of North America, Asia and Europe. Epigenomics AG, the parent company, oversees the Group's central business functions (e.g., accounting, human resources and intellectual property). The Group's research and development (R&D) activities are also conducted from Berlin. Epigenomics, Inc., is primarily active in marketing and distributing our products in North America, and in establishing and developing our activities and business relationships on the international markets outside of Europe.

## MANAGEMENT

Epigenomics is managed by a team comprised of industry experts with long-standing experience in the diagnostics industry, extensive scientific and management expertise, and the unequivocal commitment to building a world-leading cancer molecular diagnostics company in the medium term.

As a stock corporation under German law, the Company is led by an experienced Executive Board under the oversight of a Supervisory Board elected by our shareholders. Greg Hamilton has been Chief Executive Officer (CEO) since July 2016. He has over 20 years of management experience in the molecular diagnostics, manufacturing and professional services industries. Prior to joining Epigenomics, Mr. Hamilton was Chief Executive Officer and Director of AltheaDx Inc., Chief Operating Officer and Chief Financial Officer of Enigma Diagnostics Inc., Vice President of Operations and Finance at Third Wave Technologies Inc. and Vice President of Operations at Hologic Inc. He has been responsible for multiple FDA-approved products including a human papilloma virus (HPV) high risk screening assay and the first-ever approved HPV genotyping assay.

Dr. Jorge Garces, PhD was appointed to the Executive Board of Epigenomics AG in December 2017 and serves as President and Chief Scientific Officer (CSO). Dr. Garces oversees operations, research and development, clinical affairs, regulatory and quality. Dr. Garces has over 20 years of management experience at well-known companies in the molecular diagnostics and life sciences industries, and was CEO and President of AltheaDx Inc. and Enigma Diagnostics, Inc. Prior to that, he was Vice President and Operations Manager at Hologic, Inc., where he oversaw the development and FDA approval of tests for cystic fibrosis and HPV.

Mr. Albert Weber was appointed to the Company's Executive Board in January 2018 and holds the position of Executive Vice President (EVP) Finance. Mr. Weber is responsible for finance, human resources and IT. Prior to this appointment, Mr. Weber spent 17 years as the Senior Vice President of Finance, Accounting and Controlling for Epigenomics. Before joining the Company he held various management functions in controlling and accounting in the IT and music industries. He has comprehensive experience across all corporate finance functions, as well as in a range of corporate actions and IPOs in particular.

The Supervisory Board of Epigenomics currently comprises five members with the required industry experience and expertise. For further details on the current members of the Executive and Supervisory Boards, please see the Corporate Governance section of this management report.

## GOALS, STRATEGIES AND BUSINESS DEVELOPMENT

Epigenomics AG's primary corporate objective is to develop and commercialize in vitro diagnostic products for detecting cancer. We take a goal-oriented approach to managing and monitoring operational progress when executing our strategy. The Supervisory Board and the Executive Board of the Company regularly define milestones and deliverables including revenue, operating result and business targets as well as product development, clinical and regulatory milestones against which performance of the Company and its employees is regularly monitored.

Our medium-term corporate strategy is to become the global leader in the market for diagnostic tests based on "liquid biopsies". With the first ever FDA-approved blood test for cancer screening, we have established Epigenomics as a pioneer in this fast-growing market. Based on a solid level of patent protection in DNA methylation, we intend to drive market adoption for Epi proColon and expand our product pipeline in the long term. With the successfully completed development of Epi proLung and the HCCBloodTest, our expertise was again on full display in the past years.

To execute our strategy we are committed to taking all the appropriate steps necessary for product development and global commercialization. Our products are marketed through our own commercialization activities as well as through distribution partners. We primarily target the economically lucrative markets of North America, Asia and Europe with the aim of exhausting their revenue potential mostly through product sales and licensing.

Our commercial strategy is initially focused on the United States, as this is where we see the greatest economic opportunities for our products. The U.S.A. is a key market, as new diagnostic technology is typically adopted there first.

Epi proColon has been available throughout the U.S.A. since it received FDA approval in 2016. The test has since been offered through major laboratory chains there (e.g., LabCorp and ARUP). Unfortunately, we and our customers were still unable to gain certainty during the reporting period regarding its approval for reimbursement by U.S. public health insurer CMS. In the past, we have successfully demonstrated that patients who refuse a colonoscopy and are subsequently asked to choose between a stool test (FIT) and our blood test to take part in screening overwhelmingly choose the blood test. In reality, however, this choice currently also involves an additional cost consideration for the patient. A FIT test comes at little or no cost to the patient, while a blood test means they incur out-of-pocket costs. It is clear that a reimbursement decision in the U.S.A., whether via the CMS or by means of legislation, is the key to our success. At least with respect to the reimbursement price, in the summer of 2018 the CMS incorporated our Septin9 test in the fee schedule at USD 192.00. Once reimbursement is finally approved, this will be the price at which the laboratories carrying out our test can bill CMS, and both we and the laboratories as our customers are very satisfied with it.

Since then, our business development activities have thus primarily focused on activities to support and/or expedite the pending reimbursement decision. To this end, we are actively seeking dialog with decision-makers – the CMS, private insurers, screening guideline groups and, of course, politicians. Our activities in the year under review included announcing the results of a "microsimulation" by renowned experts from Harvard Medical School (HMS). Microsimulation models are used to present the consequences and effects of political and/or administrative actions and decisions. These models are preferred to studies that use real data in the real environment, for instance if the studies involve an unjustifiable cost or timescale. However, studies involving real data over more than ten years are of little help to decision makers today. The use of microsimulations is therefore particularly suitable for long-term health programs, as well as for the screening activities adopted by policymakers in the healthcare system. They are utilized for instance by various screening guideline groups, such as the United States Preventive Services Task Force (USPSTF) and the American Cancer Society (ACS) to aid in the development of screening guidelines. The model developed by the experts at HMS demonstrates good results for the use of Epi proColon in screening programs. It primarily shows the equivalence of different screening methods (colonoscopy, stool- and blood-based tests), as long as the screening frequency is taken into consideration using the criteria and measures (e.g., "life-years gained") also applied by the screening guideline groups. We are confident that the model will assist us in further discussions with the ACS and USPSTF to have the Septin9 test included in their screening guidelines.

We assume that a positive CMS reimbursement decision for Epi proColon will provide a boost to sales of our test in the U.S.A. Thanks to our location in San Diego, we are positioned to meet the logistical challenges arising as a result. Since the beginning of the reporting period, the test kits destined for sale in the U.S. market have been stored at our warehouse there, shipped to customers and invoiced. In previous years we had outsourced logistics to an external service provider, which now supports us solely in sales and distribution activities.

The European market for IVD products is highly fragmented and dominated by national influences specific to individual countries. Moreover, in many European countries CRC screening is organized at a governmental level and the barriers to entry into such systems are therefore typically very high. Direct payor segments are small in most markets and need to be addressed individually at the level of physicians and/or patients. Therefore, for the time being we only have a limited focus on commercializing Epi proColon in Europe. We sell the product ourselves in selected countries (e.g., in Germany, France and Spain) and use distribution partners in other markets.

We have also identified individual markets in Asia (in South East Asia specifically) where we see good opportunities for the test to be accepted by direct payors. We mostly serve these markets through local distributors. Among other things, we used one such distributor to open up access to the markets on the Arabian Peninsula in the reporting period.

Going forward, we expect increasing interest in our tests on the part of physicians and patients across all markets, with commercial success in the U.S.A. also promising a positive impact on commercialization in Europe. To a large extent, traditional commercialization activities, for example, are not available to us in Germany given the provisions of the German Health Services and Products Advertising Act (Heilmittelwerbegesetz). However, media reports about the availability and success of a blood test for colorectal cancer screening in the U.S.A. would certainly help get the attention of our target groups, namely physicians, patients and laboratories.

## RESEARCH AND DEVELOPMENT (R&D)

In fiscal year 2019, we focused our research efforts on the discovery of new methylation markers for both liver and colorectal cancer. A novel discovery method employing next generation sequencing (NGS) on blood plasma samples was developed and established in our laboratory. In addition, we developed multi-marker PCR panels for both CRC and HCC. Approximately 40 different gene methylation markers have been identified and characterized by employing these methods. We have been working to expand our IP portfolio with these novel cancer markers. Patent applications for multiplex marker panels and various marker combinations to be used in CRC as well as head and neck cancer were filed in 2019. A novel HCC marker patent will be filed in 2020.

Our product development efforts were focused on clinical and sample acquisition studies, our post-approval study for Epi proColon, completion of our liver cancer study, automation methods for DNA isolation, bisulfite conversion and PCR setup methods, and feasibility studies on a new PCR pentaplex assay for colorectal cancer detection. Sample acquisition efforts generated sufficient samples for the development of new and enhanced CRC detection assays in 2020. Our post-approval study, which is required by the FDA in order to established longitudinal clinical performance data for the Epi proColon product, continues to enroll subjects throughout the United States and in 2019, we reached 50% of our enrollment target.

We completed our cross-sectional study on liver cancer (hepatocellular carcinoma or HCC) in 2019. Preliminary results indicate that our blood-based gene methylation marker assay is superior to alpha fetoprotein (AFP) that is currently used in screening and management of liver cancer patients. Additional studies will be required to expand the total number of cancers analyzed and further understand the relevance of liver function and severity of cirrhosis on clinical marker performance.

Two scientific articles describing the use of our Tecan-based automation platform were published in 2019. The first in the Tecan Journal describes the optimized and validated automated workflow on a Tecan Freedom EVO 200 liquid handling system. The method described can be used to extract 96 bisulfite converted DNA samples from plasma in 7.5 hours with equivalent results to manual processing. The second publication appeared in BMC Research notes and discusses the results of automated processing on circulating cell-free DNA from both plasma and urine samples.

Finally, we developed a new generation pentaplex PCR assay that shows promising results in terms of clinical performance as compared to our Epi proColon assay. We have filed for patent protection for the marker combination included in this assay and will focus on optimization and further enhancement of this assay in 2020. We plan to present data on this new assay at one of the major scientific conferences in the coming year.

In response to the 2018 American Cancer Society guidelines on colorectal cancer screening, which indicated that the exclusion of the methylated Septin9 blood test as an option for routine CRC screening for average-risk adults was based on remaining concerns about poor specificity and the lack of microsimulation modeling, we sponsored the development and validation of a microsimulation model by experts at Harvard Medical School to address these points. The model was validated against other NCI-sponsored models built by the cancer intervention and surveillance modeling network and two large government sponsored prospective colorectal cancer trials (UK flexible sigmoidoscopy screening trial and the prostrate, lung, colorectal and ovarian trial in the United States). The results of this study were published in the Cancer Medicine journal and indicate that the benefits of an annual Septin9 blood test are comparable or better than those of other screening modalities currently recommended by clinical guidelines with harms less than the gold standard (colonoscopy every 10 years). The optimal screening interval was determined to be annual testing based on a benefit to harm ratio analysis. In addition, when adherence was included as a variable in the model, the blood test outperformed all other CRC screening strategies in terms of long-term benefits including the reduction in CRC incidence and mortality rates. The model also demonstrated that the specificity of the blood test should not be of concern as the 20% referral rate to colonoscopy over a lifetime was shown to lead to less colonoscopies and adverse events as compared to screening with colonoscopy every 10 years.

A health economics model was also published in the journal of American Health Drug Benefits. This model was designed to estimate the three-year clinical and economic impacts for methylated Septin9 (Epi proColon) and two stool-based screening tests (fecal immunochemical testing (FIT) and the multianalyte fecal test combining FIT and stool DNA (Cologuard)) compared with no screening in the population of patients who are eligible but non-compliant with CRC screening recommendations. The model predicted that the cost of the blood test is comparable to that of FIT/DNA, however, it is expected to find 5 more cancers than FIT and 28 more cancers than FIT/DNA in a typical commercial health plan population of 1 million members and is the most likely to be done by patients. It finds 172 more cancers than the status quo.

Finally, in collaboration with the Miller School of Medicine at the University of Miami, we published an abstract and presented data at the Digestive Disease Week conference on the benefits of using a CRC screening blood test in medically underserved populations. Uptake for the blood test was significantly higher than that of a stool-based test in this population. The Septin9 blood test was also included in a cost-effectiveness microsimulation analysis of new non-invasive colorectal cancer screening tests sponsored by the National Cancer Institute and presented at Digestive Disease Week. The study reported that annual screening with SEPT9 demonstrated a significant reduction in the incidence and mortality of CRC, and was the most cost-effective of the new tests.

Together, these studies add to the growing body of data supporting the clinical and cost benefits of Epi proColon. We anticipate that the evidence gathering will drive inclusion of Epi proColon into clinical guidelines, facilitate a favorable reimbursement decision by payors, and drive test adoption in the near future.

## QUALITY MANAGEMENT

Our day-to-day work conforms to the strictest regulatory standards. Our well-established, comprehensive quality management system aids in the design, development, manufacturing and global distribution of in-vitro diagnostics (IVD), and in doing so meets the specific requirements of 21 CFR 820 and ISO 13485. Epigenomics AG regularly passes tests of its ISO-certified quality management system carried out by both an accredited certification authority and inspectors from the U.S. Food and Drug Administration (FDA).

ISO 13485 is an internationally recognized quality management standard developed for medical devices and diagnostics by the International Organization for Standardization (ISO), a worldwide federation of national standards bodies. 21 Code of Federal Regulations (CFR) 820, Quality System Regulation, represents the U.S. current good manufacturing practice (cGMP) requirements for medical device manufacturers. 21 CFR 820 and ISO 13485 specify requirements for a quality management system which ensures the organization's ability to provide medical devices and diagnostics that consistently meet customer and applicable regulatory requirements.

The implementation of a quality management system compliant with 21 CFR 820 and ISO 13485 specifically demonstrates Epigenomics AG's ongoing commitment to developing safe and effective diagnostic products such as its tests for colorectal, liver and lung cancer. The Company works continuously to improve its quality management system, thereby creating a solid foundation to obtain additional global regulatory approval for its products.

# REPORT ON ECONOMIC POSITION

## MACROECONOMIC AND INDUSTRY-SPECIFIC CONDITIONS

### Macroeconomic environment in 2019

The geopolitical situation showed no signs of easing in 2019. It was more a case of watching new trouble spots emerge than existing ones subside. Previous years had seen a global trend towards nationalism and confrontation against a backdrop of waning cooperation, and this remained apparent. There was no end in sight to the trade disputes between the U.S.A., Europe and China, which instead escalated again in the second half of the year. Tensions also remained within the European Union (EU), where the Brexit saga continued to dominate. Around the world governments were overthrown, elections were forced, political and social unrest flared and states of emergency were even imposed (including in Hong Kong and Chile). The situation in the Middle East was further destabilized by the resurgent rivalry between the U.S.A. and Iran. In 2019, politics in many western countries was increasingly dominated by the climate crisis, which particularly in Germany has become so entrenched in social discourse that it seems unlikely any political party will be able to win a parliamentary election in the near to medium term without appropriately addressing the issue.

The global economy again focused on international trade relations in the year under review. The issue was dominated by the two global heavyweights, the U.S.A. and China, and their trade disputes. There was also renewed friction between the U.S.A. and the EU (this time increasingly with France). The EU member states again failed to join forces economically. Given the growing propensity in many countries around the world to think in nationalistic terms, it was not difficult for the major powers to further expand their dominance.

Germany experienced something of a political stalemate in 2019. The atmosphere in the governing coalition was marred by internal disagreements within the SPD, and where the CDU/CSU was concerned by the Chancellor's increasing passivity and the discussions about her potential successor. On the economic front, the automotive industry continued to cause greater concerns. It is just as heavily involved in the climate debate as it is in energy and infrastructure policy. The commonality here was mainly mobility. Last but not least, the increasing shortage of housing in major urban areas and the resulting growth in real estate prices was a key issue that in the meantime has come to a head with the decision by Berlin's senate to enact a "rent cap" for the German capital.

Brexit continued to dominate politics in the UK. The discussions about how and when the country will leave the EU gathered pace, led to British prime minister Theresa May's resignation in the first half of the year. She was replaced in the summer by Boris Johnson, a hardliner who prevailed with a combination of new elections and intransigence. The UK has now finally left the bloc after the end of the reporting period at the end of January 2020, entering into a transition period that will run until the end of the year.

In the U.S.A., the economy – and the labor market in particular – appeared stable. Against this background, President Trump enjoyed significantly higher ratings at home that he did abroad. The impeachment proceedings instigated by the Democrats did not have any consequences for him for the time being. Meanwhile, the Democrats have still not managed to pool their strengths and come together around a strong candidate for the upcoming presidential elections in 2020.

Overall, global economic growth was weaker than expected in 2019. The most recent assessment by the World Bank puts the figure at 2.4% year on year, which would be the lowest since the global financial crisis a decade ago. The Bank lays the blame primarily with the industrialized nations, whose economies expanded by a mere 1.4%. Within this group the eurozone lagged particularly far behind, with growth of just 1.0%. According to World Bank estimates, the emerging markets recorded growth of 4.1% in the year under review, although the report notes that this was heavily financed by new debt. While the persistently low global interest rates may well have made this borrowing very appealing to many countries, it could give rise to greater debt problems in the medium term.

The consensus is that gross domestic product (GDP) in Germany grew by just 0.5% in 2019 – practically a standstill. Nevertheless, unemployment remained very low, wages grew at an appropriate rate and inflation was still only modest. While German industry weakened in 2019, the construction sector saw another strong year. Nevertheless, a slight upswing is generally evident in many areas towards the end of the year (e.g., order intake, business sentiment).

While the labor market data and rates of inflation in the key economies remained generally encouraging, the consequences of international trade disputes were increasingly felt. Global trading volumes trended downward in the 2019 reporting period, which experts attributed to the policies of the Trump administration. Global investment activity remained at a low level and as such was also to blame for the lack of economic growth.

In the U.S.A., the growth rate of approximately 2% in 2019 was higher than in Germany but was still notably down on the figures for previous years. The growth drivers included spending by private households, which also benefited from moves by the Federal Reserve (Fed) to abandon the strategy of raising interest rates it had pursued in the previous year. It surprised the markets by starting to cut its benchmark rate in the first quarter of 2019. The most recent target corridor is 1.5–1.75%, significantly below the prior-year level. Towards the end of the year, however, there were again growing signs of a slowdown in industrial production in the U.S.A.

At the end of 2019, the European Central Bank (ECB) – under the stewardship of its new president, Christine Lagarde – saw no reason to raise interest rates to ensure price stability in the eurozone. Its benchmark rate remained unchanged at 0%. Banks continue to face a negative rate of -0.5% for overnight deposits. Furthermore, in November 2019 the ECB reactivated the asset purchase program it had suspended in the previous year, at a monthly pace of EUR 20 billion.

### Macroeconomic outlook for 2020

The forecasts for economic growth in 2020 have so far been cautiously optimistic. Germany's Bundesbank expects that the previous weak periods will gradually be overcome. It primarily bases this on a resurgence in exports on the back of growing international demand, while domestic demand and employment trends are expected to have more of a dampening effect. According to the Bundesbank, the growth rate will remain unchanged at just 0.5% for now, before trending upwards in subsequent years. It thus remains at the lower end of the scale of expert opinions. The majority of leading German economic research institutes and the OECD expect GDP growth of over 1% in Germany.

Globally, too, few significant changes in growth rates are expected in 2020. The World Bank forecasts growth of 2.5%, noting that myriad uncertainties and international trade disputes will remain burdensome and there will still be no decisive rise in investment activity. It remains to be seen whether Brexit, which is now regarded as settled, and the rapprochement between the U.S.A. and China in their trade dispute will improve sentiment, even if uncertainties surrounding the crises in the regionally important economies of Hong Kong and Chile remain high. The tense situation in the Middle East, primarily the saber rattling between the U.S.A. and Iran, has the potential to trigger additional crises. Further speculation and confusion may arise in the run-up to the presidential election to be held in the U.S.A. towards the end of the year. The economic slowdown in China, which is expected to continue, is also certain to leave its mark on the overall global picture.

An increasing number of extreme weather events could likewise make for additional uncertainties – something that not only the World Bank points out. The climate debate gained considerable momentum in the year under review. As long as it brings about changes in investment and consumer behavior in the industrialized nations, this could also have an impact at the latest in the medium term. The topic is certain to have a positive global effect on innovation. The shift from production locations to sustainable business models has already begun in the majority of industrialized nations.

At the beginning of 2020 – i.e. after the end of the reporting period – there was an increased international spread of the corona virus, which first appeared in China, with in some cases strong effects on the global economy. The further course of this epidemic definitely harbors many imponderable risks, but the extent and duration of these risks cannot yet be adequately specified.

The bottom line, however, is that the risks and existing burdens have to be seen as high and uncertainty has always been less than conducive to the economic situation. The Economic Policy Uncertainty Index, which was developed in the U.S.A. by professors Baker, Bloom and Davis, rose significantly, nearly tripling in the previous year. The index measures the frequency with which the world's leading economic media outlets report applicable economic uncertainty, and is supplemented by measuring special economic forecast parameters observed at any given time. The end of 2018 saw the highest figure since measurements began in 1996. Following a slight decline in the first half of 2019, it reached a new all-time high in September. At the end of 2019 it can be stated that the 12-month average is the highest ever recorded. It is assumed that economic performance is much more subdued in a climate of international uncertainty than in an environment of general optimism.

The Bundesbank believes the euro to U.S. dollar exchange rate will remain stable. It is predicting a rate of EUR/USD 1.10 in the coming years, which is roughly in line with the rate at the start of 2020. However, for the time being the bank does not yet anticipate an interest rate rise for the eurozone in 2020, 2021 or 2022, and only expects to see an end to negative interest rates the following year. In this assessment of the ECB's monetary policy, it also finds itself in a consensus with many other analysts and economics experts.

### Capital market environment

After a broad-based downward trend on the global stock markets in 2018, all of the key exchanges saw significant rises in 2019 – confounding most expectations. In fact, 2019 was the best year for the capital markets since the global financial crisis a decade ago. This boom nevertheless failed to grab headlines in 2019, a year in which the business media increasingly focused on trade conflicts and flatlining corporate profits.

Following a strong start in the first four months of the reporting period, the summer initially saw price corrections that were doubtless also due to the trade dispute between the U.S.A. and China, before a protracted final push in the final four months lifted many stock indices around the world to annual highs, if not all-time records. This growth is primarily reflected in the MSCI World Index, which rose by almost 24% year on year. The DAX 30 closed at 13,236 points on December 31, 2019, the highest level since November 2017. Its performance over the twelve months even slightly outpaced that of the MSCI World Index. Volatility remained relatively low over the course of the year.

Among Europe's key exchanges, the Swiss and French stock markets joined their German counterpart in celebrating a very successful end to the year. The United Kingdom was at the end of the scale with growth of "just" 17%, which was almost certainly due to the uncertainties surrounding Brexit. In the U.S.A., the S&P 500 climbed nearly 29% to reach a new record high in the reporting period and the Nasdaq 100 grew from 6,330 points at the beginning of the year to 8,733 points towards the year-end, up some 38%. This run on stocks was almost certainly buoyed by the Fed's U-turn on money market rates, which could not be foreseen at the beginning of the year. Share prices rose sharply almost across the board, with the exception of the energy sector. The healthcare segment in the S&P 500 was the second weakest but still managed to record annual growth of 19%. Technology and communications stocks led the field in 2019.

It was not just stocks that had an exceptionally good year in 2019. Other asset classes (such as oil, gold and bonds) saw significant price increases and recovered from their equally significant price declines in the previous year (the exception being gold). Yields on the bond market fell, mainly due to changing signals in U.S. money market policy which caused prices to increase over the first three quarters of the year.

The number of initial public offerings (IPOs) in Germany declined in the year under review to reach their lowest number since the global financial crisis. There were just three IPOs in the Prime Standard of the Frankfurt Stock Exchange, the segment where Epigenomics' shares are listed. Nor was it plain sailing for IPOs globally. The initial top candidates either posted a disappointing performance post-IPO (e.g., Uber), pulled the plug at short notice (WeWork) or simply fell short of expectations (Saudi Aramco). The few success stories (e.g., Beyond Meat) could do little to dispel the general climate of skepticism. For investors, there was often more money to be made with existing stocks than with newcomers.

Where IPOs in the healthcare sector were concerned, the situation remained largely stable: After 76 healthcare IPOs in the U.S.A. in the previous year, another 72 companies marked their stock market debuts in 2019. The standout feature was the "digital health" subsegment. Among the ten most successful IPOs in the U.S.A. in 2019 (measured by subsequent share price performance) were no fewer than nine healthcare companies, of which seven were biotech stocks. On an encouraging note, this also included German company BioNTech. Globally, however, total IPO volumes in the healthcare sector fell by roughly a tenth compared with the previous year.

### Industry environment

Developments in the global healthcare sector – an environment of increasing spending – are being driven not just by aging and growing populations, but also by continuous technological innovation. As in previous years the highest growth rates for the industry going forward are expected in Asia and the Middle East, with more moderate growth in Europe.

Promising technologies in life sciences include innovative diagnostic and therapeutic methods with improved outcomes for patients and greater benefits for healthcare systems. Nevertheless, the environment in affluent countries around the world continues to be marked by healthcare reform and pressure on cost and price. In the world's biggest market, the U.S.A., cost developments in healthcare (first and foremost drug prices) again played a major role in the reporting period, including politically.

As already noted, stock market growth in the healthcare sector was at the lower end of the rankings, both in the U.S.A. and in other key regions. However, the growth trend in this sector has remained very stable in recent years and even continued to record positive development at times when prices were declining elsewhere. The sector has also seen consistently good growth rates on the European capital markets. With price gains of more than 45%, diagnostics companies were at the forefront among small and mid caps, surpassed only by medical engineering firms (51%).

As observed in the previous year, the development in the healthcare sector is now also driven by players perceived as being industry outsiders, such as tech giants Alphabet (Google) and Amazon. That trend will remain prevalent as artificial intelligence (AI) continues to grow in importance, including in life sciences. AI is set to become more widespread in diagnostics in particular, where given the demand for precise analysis of large quantities of complex data, new technologies hold the promise of quantum leaps in the development of new tests.

Diagnostics remains a lucrative segment within the life sciences industry. The subsegment of in-vitro diagnostics (IVD), and in particular molecular diagnostics, has grown rapidly in recent years. From estimated global revenues of over USD 68 billion in 2018, market research institutes still anticipate annual growth of around 5% and, depending on the underlying data and calculation methodology, forecast global revenues well in excess of USD 80 billion in 2023. Significant worldwide growth rates also continue to be forecast for blood-based tests in particular. Analysts anticipate that this subsegment will generate revenues in excess of USD 5 billion globally by 2023.

The diagnostics market as a whole remains fairly consolidated, with competitors ranging from large European players (e.g., Roche, Bayer, Qiagen, BioMerieux), Sysmex from Japan and U.S. companies (e.g., Abbott, Bio-Rad, Becton Dickinson) to small companies like Epigenomics. The market also saw further increases in M&A activity in the reporting period. For example Qiagen, Germany's largest diagnostics/biotech firm, was also in the limelight in 2019. Towards the end of the year the company reported a number of suitors interested in a takeover. Even if Qiagen's preliminary answer was no, this is testimony to the ongoing push towards consolidation in the sector. The buy-side interest is mainly focused on manufacturers of R&D instruments and supplies for next generation sequencing or drug discovery, and companies that make new and unique diagnostic tests – among them Epigenomics.

M&As also remain important exit options, particularly for investors in German biotech firms, since the German capital market continues to lag far behind its U.S. counterpart in this segment. Overall, German biotech firms managed to raise some EUR 860 million in capital in 2019 (2018: EUR 1.3 billion). It must be noted that the IPO of Mainz-based BioNTech on the Nasdaq alone accounted for more than half of the total volume. Centogene and Immunic were two further German names to debut on the Nasdaq, however again there were no IPOs of local biotech firms on German exchanges in the year under review. Thomas Strüngmann, one of the two major private biotech investors in Germany (together with his brother) explicitly complained in an interview towards the end of 2019 about the lack of interest and understanding of the industry. In his opinion, the successful IPO of BioNTech on Nasdaq would not have been possible in Germany "(...) because the capital market here would not have provided us the requisite funds. There continues to be a lack of interest and understanding of biotech. It is a long-term investment that requires a large amount of capital. The potential of biotechnology is enormous. Everyone is looking at the risks and not the opportunities. Things are completely different in the U.S.A., where the financial world has far more confidence and expertise in biotechnology and drug development. (...) Of all things biotech – one of the key future industries – is lagging far behind. (...) This market is increasingly being dominated by U.S. companies."[1]

The specific implications of the global economic situation on our business and our Group are discussed in the Report on Opportunities and Risks and the Report on Expected Developments sections of this Group Management Report.

[1] Handelsblatt, December 5, 2019

## BUSINESS DEVELOPMENT 2019

### Epi proColon

*Study published on various screening methods using a microsimulation model*

From the Company's viewpoint, one momentous event in the reporting period was without doubt the publication of the study on a newly developed microsimulation model to investigate the benefits of various methods of colorectal cancer screening. The model was developed by external scientists from Harvard Medical School. As early as January 2019 we informed the market and the scientific community that these experts had succeeded in developing such a model and had obtained positive results for Epi proColon as a colorectal cancer screening test. This type of model is typically used in the social sciences and economics in cases where studies using real data are only possible at a disproportionately high cost or subject to unacceptable time restrictions. The models are used to simulate (behavioral) scenarios that may result from certain actions and/or decisions. They are designed to assist decision makers in better assessing the impact of their decisions ex ante.

The results of this study were ultimately published in Cancer Medicine in the December of the reporting period[1]. Prior to this, the lead authors of the study, Dr. Elvira D'Andrea and Dr. Mehdi Najafzadeh, presented a summary of the results to a large expert audience at the European Public Health Conference in Marseilles in November 2019.

The results of this study show that Epi proColon provides clinically meaningful reductions in the incidence and mortality of CRC compared with the screening methods currently recommended by the United States Preventive Services Task Force (USPSTF). The microsimulation model evaluated the impact of adherence rates, testing intervals and the clinical performance of different screening strategies on CRC incidence and mortality. The results show that adherence rates and screening intervals can have a profound impact on the effectiveness of screening strategies as compared to one-time sensitivity and/or specificity.

"While colonoscopy-based screening for CRC offers the highest sensitivity of all available screening strategies, the results of this microsimulation model demonstrate that patient adherence and prescribed screening intervals heavily influence the long-term clinical effectiveness for all CRC screening strategies," said Daniel Sussman, MD, University of Miami Miller School of Medicine and an author on the publication. "Evaluating an environment where realistic colonoscopy adherence rates are less than 70% and the recommendation exists for ten-year intervals between colonoscopy screenings for individuals with average CRC risk, the findings of this study suggest that stool- and blood-based CRC screening strategies with higher adherence and considerably shorter intervals offer competing options to patients and clinicians in an effort to reduce CRC incidence and mortality. CRC is a disease that is largely preventable when detected and treated early."

The study was conducted using an individual-level model to simulate the natural history of CRC and enables a comparison of clinical benefits, harms, and burden of alternative strategies for CRC screening. The model was validated by comparing predicted CRC incidence and mortality, adenoma dwell times, overall dwell times and lifetime risk of developing CRC with results from two large randomized controlled trials[2] and those of the National Cancer Institute's Cancer Intervention and Surveillance Modeling Network (CISNET) models.[3]

The model used a hypothetical cohort of individuals aged 50 years or older and emulated the distribution of baseline characteristics for subjects in the landmark clinical studies. Identical cohorts were then created and assigned to different screening strategies in order to compare intervention-related differences in outcomes. The screening strategies and intervals summarized in the table below were analyzed under two scenarios: 1) adherence fixed at 100%; 2) adherence based on published rates. Sensitivity analyses based on varying initial and resulting overall adherence rates were also conducted.

[1] D'Andrea A, Ahnen DJ, Sussman DA and Najafzadeh M. Quantifying the impact of adherence to screening strategies on colorectal cancer incidence and mortality. Cancer Medicine 2019.

[2] Atkin WS, Edwards R, Kralj-Hans I, et al. Once-only flexible sigmoidoscopy screening in prevention of colorectal cancer: a multicentre randomised controlled trial. The Lancet 2010; 375(9726): 1624-33/Schoen RE, Pinsky PF, Weissfeld JL, et al. Colorectal-cancer incidence and mortality with screening flexible sigmoidoscopy. New England Journal of Medicine 2012; 366 (25): 2345-57.

[3] Joseph DA, King JB, Richards TB, Thomas CC, Richardson LC. Peer Reviewed: Use of Colorectal Cancer Screening Tests by State. Preventing chronic disease 2018; 15.

| **Screening Strategy** | Screening Interval |
|---|---|
| No Screening | n/a |
| Flexible sigmoidoscopy (FS) | 5 years |
| Colonoscopy (COL) | 10 years |
| Fecal immunochemical testing (FIT) | 1 year |
| High-sensitivity guaiac-based fecal occult blood testing (HS-gFOBT) | 1 year |
| Multitarget stool DNA testing (FIT-DNA) | 3 years |
| Computed tomographic colonography (CTC) | 5 years |
| Methylated SEPT9 DNA blood test (SEPT9) (Epi proColon) | 1, 2, or 3 years |

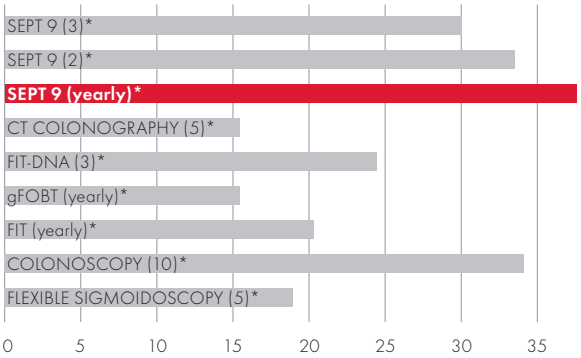
Key findings from the study include:

Assuming an adherence rate of 100% (in each case per 1,000 individuals screened):

- FIT-DNA, FIT, HS-gFOBT, and SEPT9 averted 42–45 CRC cases and 25–26 CRC deaths;
- COL averted 46 CRC cases and 26 CRC deaths;
- CTC averted 39 CRC cases and 23 CRC deaths and FS averted 32 CRC cases and 19 CRC deaths.

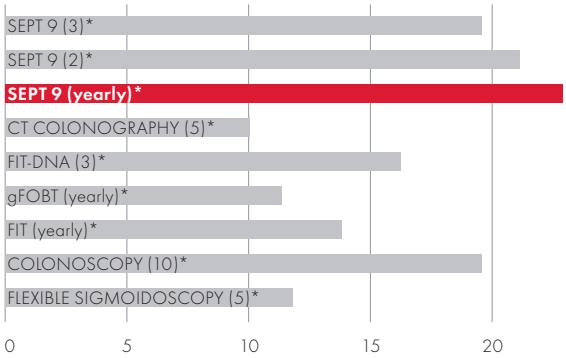
Estimated life-years gained (LYG) were similar across FIT-DNA, FIT, HS-gFOBT, SEPT9, CTC, and COL strategies. Based on reported adherence of eligible individuals to CRC screening, per 1,000 individuals screened, colonoscopy produced the best outcomes unless a non-invasive method achieves a 65%–70% or greater adherence rate. Screening individuals with a colonoscopy every ten years or SEPT9 every year (assuming reported adherence rates) resulted in more favorable outcomes compared to all other strategies (see figure below). The impact of analytic performance on screening outcomes is heavily influenced by adherence rates and screening interval.

**CRC cases averted per 1,000 screened (reported adherence)**




No. of events/1,000 screened
*Examination interval in years

**CRC deaths averted per 1,000 screened (reported adherence)**




No. of events/1,000 screened
*Examination interval in years

"The key takeaway from this study is that Epi proColon done annually can serve as an effective non-invasive CRC screening strategy that can provide long-term benefits similar to those of other currently recommended CRC screening methods with harms lower than those reported for colonoscopy. Most importantly, however, as stated by the authors, even for tests with the highest accuracy, such as colonoscopy, the benefit of screening could be muted by a suboptimal uptake and therefore we agree with many experts in the field in saying that the best test is the one that gets done." (Dr. Jorge Garces, President and Chief Scientific officer at Epigenomics AG).

We assume that not only healthcare providers in the U.S.A. (Medicare and private) but also the critical screening guideline groups will pay attention to this study and its results. For many years now, the saying among a number of experts in cancer screening has been that "the best test is the one that gets done". The results of the microsimulation study clearly support this assertion.

### Review by CMS of a National Coverage Determination (NCD) for Epi proColon

In May 2019, we announced that the Centers for Medicare & Medicaid Services (CMS) had accepted our application for a National Coverage Determination (NCD) review of Epi proColon. The NCD is one of two options to obtain CMS coverage for Epi proColon, which would represent a major U.S. market breakthrough for the Company. With this step, no decision has yet been made on coverage, but CMS has determined that there is a rationale to accept the NCD review at this time.

While CMS has accepted the application in May, due to the limitation of resources, CMS will not open the NCD review process immediately. When CMS resources were finally available on February 28, 2020, – after the end of the reporting period – the NCD was opened by initiating a 30-day public comment period and CMS will issue a proposed decision within six months from that date per legal statute. If this proposed coverage decision is positive, another 30-day comment period follows. CMS will publish its final decision within 90 days of the initial proposed decision. That means that we will have a definitive answer within six to nine months following commencement of the review process, hence still in the year 2020.

Additionally, we will continue to pursue the legislative path for reimbursement as we believe this option is also a viable solution. In the March of the reporting period we announced that U.S. Representatives Donald Payne, Jr. (D-NJ) and Kenny Marchant (R-TX) had introduced the "Donald Payne Sr. Colorectal Cancer Detection Act" (HR 1765) to the United States House of Representatives in Washington D.C. This House Bill aims to provide payment and coverage under the Medicare program for FDA-approved qualifying colorectal cancer (CRC) screening blood-based tests.

Overall, we are optimistic that one of these approaches will result in a positive reimbursement decision for Epi proColon.

### Further studies on Epi proColon

We again published interesting and encouraging study data about Epi proColon in the year under review.

#### *Increased CRC screening rates using Epi proColon in a medically underserved population*

We announced new findings at Digestive Disease Week (DDW) in May 2019 in San Diego that underscore Epi proColon's high acceptance rate compared with stool-based screening tests. These results stem from a study by Amar R. Deshpande, MD, Associate Professor of Clinical Medicine at the University of Miami and his colleagues. The data was presented at DDW on a poster entitled "Increasing uptake of colon cancer screening in a medically underserved population with the addition of blood-based testing" (Abstract #1667). Participants attended free health fairs hosted by the University of Miami Mitchell Wolfson Sr. Department of Community Service (DOCS) in South Florida between April 2017 and April 2018. Those eligible for screening and at average risk for CRC were offered a stool-based fecal immunohistochemical test (FIT), and those who declined FIT were then offered the Epi proColon blood test. Blood samples were drawn from participants who accepted Epi proColon and sent for analysis. Participants with positive Epi proColon results were contacted by student navigators to try to facilitate colonoscopy. Key findings from the report include:

Of 1,241 health fair attendees, 249 were eligible to participate in CRC screening. A total of 233 eligible participants (93.6%) elected to undergo Epi proColon screening. Of the 249 eligible participants, only 16 (6.4%) elected to receive a take-home FIT, of which only 1 was returned for processing. In free health fairs conducted in the prior year, which only offered FIT, 414 accepted FIT and 52 (12.5%) were processed.

The authors conclude that the availability of the Epi proColon blood test resulted in a marked increase in screening uptake compared with FIT in medically underserved patients.

### *Colorectal cancer screening in patients with Lynch syndrome*

In June 2019 we reported new study results suggesting that Epi proColon may also be an important complement to colonoscopy for CRC screening in patients with Lynch syndrome (LS). LS is a hereditary disease associated with a 10–80% increase in the risk of developing CRC. The study results appeared in the June issue of BMJ (British Medical Journal) Open Gastroenterology.

There is currently no cure for LS. Therefore, routine screening that enables early detection and treatment of precancerous lesions has the potential to reduce the risk of CRC and save lives. Approximately 95% of individuals with LS are unaware of their disease status, and nearly a third of patients who know their LS status fail to comply with the recommendation to undergo colonoscopy screening every one to two years. This study evaluated a new approach that could potentially enhance CRC screening for LS patients, which is crucial to reducing the morbidity and mortality associated with the disease.

The study was conducted as a retrospective analysis of preserved tissue and frozen plasma samples from patients with a confirmed diagnosis of LS who underwent either surgical resection for a diagnosis of CRC or removal of a polyp during colonoscopy between March 2006 and February 2019. Study objectives included a comparison of Septin9 gene methylation status (the marker measured by Epi proColon) between patients with LS and patients with non-hereditary forms of CRC and exploratory analyses of the sensitivity and specificity of Epi proColon in LS patients.

The study authors conclude that Epi proColon may have similar diagnostic performance characteristics in LS patients as in the average-risk population and suggest that a larger, prospective study to confirm these preliminary findings is warranted.

### *Non-invasive screening methods as cost-effective option in colorectal cancer screening*

In July 2019 we announced the results of another study. The results suggest that Epi proColon is a cost-effective approach for increasing CRC screening rates. While the official CRC screening rate target in the U.S.A. is 80%, the actual screening rate for CRC is only about 65%, creating a screening gap that requires new solutions. The study, led by a team from the Hutchinson Institute for Cancer Outcomes Research, used an economic simulation model evaluating the budget impact of Epi proColon and two stool-based CRC screening tests. It appeared in the July edition of American Health Drug Benefits.

The simulation model is designed to estimate the three-year clinical and economic impacts for methylated Septin9 (Epi proColon) and two stool-based screening tests (fecal immunochemical testing (FIT) and the multianalyte fecal test combining FIT and stool DNA (Cologuard)) compared with no screening in the population of patients who are eligible but non-compliant with CRC screening recommendations. The model reflects a theoretical commercial health plan population of one million members, and assumed that of the 232,000 screening eligible members (ages 50 to 64) there were approximately 81,200 individuals who were unscreened. The study assessed the clinical and economic impacts of screening approximately 34,800 of these 81,200 individuals. The 80% screening rate target was achieved within the cohort.

The key takeaways from the study include the statement that the number of cases newly detected with each of the screening strategies (carcinomas and adenomas) can be measurably increased with the acceptance of minimal costs.

The study authors conclude that, for patients unwilling to be screened with colonoscopy, non-invasive blood- and stool-based screening methods can shift CRC detection to earlier, more curable stages of illness with similar cost. Given that individuals are more willing to have a blood test than take a stool sample at home, the authors also conclude that Epi proColon in particular may help health plans to achieve the U.S. CRC screening goal of 80%.[1]

The results of this study add to the growing body of data supporting the clinical and cost benefits of Epi proColon. The Septin9 test was also included in a cost-effectiveness microsimulation analysis of new non-invasive colorectal cancer screening tests, reported at Digestive Disease Week (DDW) 2019. Although the analysis reported at DDW was based on a prior version of the test, annual screening with Septin9 demonstrated a significant reduction in the incidence and mortality of CRC, and was the most cost-effective of the new tests.[2] These results also align with clinical outcomes from the microsimulation model developed at Harvard Medical School.

Providing non-compliant patients with alternative screening options is essential for increasing CRC screening by 15 percentage points over current levels. Unlike colonoscopy and stool-based tests, which require that patients take some sort of action after leaving the physician's office, Epi proColon is a cost-effective screening test that can be performed during a routine office visit.

## Awards for Epi proColon

At the Innovation and Excellence Awards in May 2019, Corporate LiveWire recognized Epi proColon with the Excellence in Molecular Diagnostics Award 2019. Each year, Corporate LiveWire honors the best global developers, projects and services. The awards cover all industries, from science and technology to engineering, design and finance, and recognize the best in each field.

The selection panel acknowledged the importance of a patient-accepted colorectal cancer (CRC) detection method and commended Epigenomics for developing Epi proColon – a simple, viable and accessible solution to effectively screen. Knowing that CRC is the second most common cause of cancer-related deaths and that so many of those deaths are down to a lack of screening, a blood test is an excellent way to help save lives by increasing adherence to CRC screening.

In July 2019, we were selected by MedTech Outlook to receive the 2019 Top 10 In-Vitro Diagnostics Award. This annual prize recognizes companies that excel in their respective fields. The selection panel noted that through its unique, proprietary DNA methylation biomarker technology, Epigenomics is breaking new ground in developing a portfolio of non-invasive, blood-based diagnostics to facilitate cancer detection.

### *Licensing partnership terminated*

In March 2019 we announced our decision to terminate, with immediate effect, the cooperation with our Chinese partner BioChain in licensing the Septin9 marker and exclusive distribution rights in China for Epi proColon. We exercised our contractual right to terminate the agreement when BioChain failed to pay more than the contractually agreed minimum royalties over a period of three years.

### *Septin9 patent declared partially invalid in China*

In July 2019, we announced that the Reexamination and Invalidation Department of the Patent Office, China National Intellectual Property Administration (CNIPA), had declared that our Septin9 patent in China was only partially valid. The patent was not recognized for the detection of liver cancer. For the detection of colorectal cancer, the patent was recognized to the extent the detection is based on biological samples consisting of cell lines, histological slides, biopsies, paraffin-embedded tissue, stool, colonic effluent and combinations thereof, but not for detections based on bodily fluids (urine, blood plasma, blood serum, whole blood, isolated blood cells, cells isolated from the blood and combinations thereof). We have decided to lodge an appeal and for the time being have suspended our commercial activities on the Chinese market, since our Septin9 assay is designed as a blood test and it currently no longer enjoys patent protection in China (and only in China).

[1] Liles EG, Coronado GD, Perrin N, et al. Uptake of a colorectal cancer screening blood test is higher than of a fecal test offered in clinic: a randomized trial. Cancer Treat Res Commun. 2017; 10:27-31.

[2] Peterse EF, Meester R, de Jonge L, Alarid-Escudero, Zauber AG, Lansdor-Vogelaar I. Comparing the cost-effectiveness of new colorectal cancer screening tests. Gastroenterol. 2019; 156 (6): p. 21.

### *Corporate Announcements in 2019*

On October 17, 2019, we announced our plans for a capital increase against cash contributions with shareholders' subscription rights utilizing the authorized capital with a subscription ratio of 10:3 in accordance with the resolutions of the 2019 Annual General Shareholders' Meeting. The Company's Executive Board resolved to do so on October 17, 2019 with the approval of the Supervisory Board. On October 31, 2019, the subscription price for the new shares was set and announced at EUR 1.11 per share.

As part of the capital increase, we were able to place EUR 7,506,152 of the resolved capital increase of up to EUR 10,806,462.00 (i.e., 33.3% of the existing share capital at that time). The Company's share capital was increased accordingly by EUR 7,506,152, from EUR 36,021,540 to EUR 43,527,692 through the issue of 7,506,152 new non-par value registered shares against cash contributions. The shares from the private placement were allocated to several institutional investors, including in particular those from the U.S.A. and Germany.

The gross proceeds from the capital increase amounted to EUR 8.3 million.

The capital increase was entered into the commercial register on November 08, 2019.

## OUR STOCK IN THE REPORTING PERIOD

### Market data (Xetra/Frankfurt)

| | Dec 31, 2018 | March 31, 2019 | June 30, 2019 | Sept 30, 2019 | Dec 31, 2019 |
|---|---|---|---|---|---|
| Number of shares outstanding | 36,021,540 | 36,021,540 | 36,021,540 | 36,021,540 | 43,527,692 |
| Closing price (in EUR) | 1.77 | 1.80 | 1.79 | 1.35 | 1.37 |
| Market capitalization (in EUR) | 63,758,126 | 64,694,686 | 64,478,557 | 48,629,079 | 59,632,938 |

| | Q4 2018 | Q1 2019 | Q2 2019 | Q3 2019 | Q4 2019 |
|---|---|---|---|---|---|
| Average daily trading volume | 86,486 | 52,498 | 49,648 | 32,707 | 167,413 |
| Highest closing price (in EUR) | 2.70 | 2.00 | 2.08 | 1.90 | 1.51 |
| Lowest closing price (in EUR) | 1.70 | 1.57 | 1.77 | 1.35 | 0.93 |

Epigenomics' share price hit its high for 2019 of EUR 2.08 in April. The shares closed 2019 at EUR 1.37 in Xetra trading.

## FINANCIAL REPORTING IN THE REPORTING PERIOD

The shares of Epigenomics AG are listed in the Prime Standard segment of the Frankfurt Stock Exchange. The Exchange Rules impose the obligation to prepare interim financial reports. During the reporting period, we published quarterly reports on May 8, 2019 (first quarter) and November 19, 2019 (third quarter), and a half-yearly report on August 7, 2019. All reports can be accessed on our website at https://www.epigenomics.com/news-investors/financial-reports/.

The following section gives an overview of the material financial KPIs in the individual reporting quarters (the figures for the fourth quarter were calculated by subtracting the cumulative nine-month figures from the annual figures):

| EUR thousand (except where indicated otherwise) | Q1 | Q2 | Q3 | Q4 | 2019 |
|---|---|---|---|---|---|
| Revenue | 331 | 348 | 168 | 278 | 1,125 |
| Earnings before interest and taxes (EBIT) | -3,313 | -4,666 | -2,844 | -3,850 | -14,673 |
| EBIT before depreciation and amortization (EBITDA) | -3,210 | -4,528 | -2,706 | -3,716 | -14,160 |
| EBITDA before share-based payment expenses | -2,958 | -4,287 | -2,487 | -3,555 | -13,287 |
| Earnings per share (in EUR) | -0.08 | -0.12 | -0.07 | -0.19 | -0.46 |
| Net cash flow | -4,522 | -3,563 | -3,114 | 4,860 | -6,339 |
| Cash consumption | -4,332 | -3,485 | -3,041 | -2,601 | -13,459 |
| Total liquidity[1] at end of period | 12,873 | 9,137 | 6,277 | 11,035 | 11,035 |

[1] Total liquidity = Cash, cash equivalents and marketable securities.

In the Outlook section of our prior-year Group management report we forecast that revenue would increase to between EUR 3.0 million and EUR 6.0 million for fiscal year 2019. As in the previous year, the difficulty in forecasting lay in the uncertainty over timing of the reimbursement decision for Epi proColon in the U.S.A., which would provide a significant boost to the sales figures. It became apparent midway through the reporting period that the decision would not be made in 2019, and we initially reduced our forecasts to between EUR 2.0 million and EUR 4.0 million. At that point we were still expecting to enter into a licensing agreement. Since this failed to materialize in the short term, we reduced our forecasts further to EUR 1.5 million following the third quarter before settling on a final revenue figure of EUR 1.1 million at the end of the year.

While there were no significant fluctuations in revenue over the four quarters, major cost items were incurred in the second quarter that had a knock-on effect on EBIT, EBITDA, EBITDA before share-based payment expenses, and earnings per share. These were caused mainly by temporary cost increases in connection with our studies in the U.S.A. (PERT study and HCC cross-section study), as well as increased legal costs associated primarily with our patent and licensing disputes in China.

Cash consumption decreased constantly over the quarters, which is in line with normal business development. There is usually a number of outgoing payments in the first quarter covering prepayments for the whole calendar year (e.g., licenses) or final payments (including bonuses) for the preceding fiscal year. By contrast, net cash flow was positive in the fourth quarter due to inflows from the capital increase completed in the November of the reporting period.

Total operating costs amounted to EUR 18.3 million in fiscal year 2019. These exceeded the prior-year figure of EUR 15.9 million but were significantly below budget. While we significantly reduced many cost items as against 2018 (e.g., personnel costs, legal and consulting fees and expenses associated with IP), the ongoing studies – primarily the PERT study and the cross-section study on liver cancer screening – were material cost drivers that offset those savings. While the costs of the studies were included in our internal planning, the cost reductions referred to above meant that we remained below the budgeted figures, in some cases significantly. This related mainly to the cost of sales, which in the absence of the planned product sales did not accrue, as well as personnel costs since the market situation in the U.S.A. meant that there was still no reason to increase our marketing and sales staff there as planned.

The majority of the EUR 2.5 million in other income generated in the reporting period was not budgeted (such as currency gains and reversals of provisions) and together with the cost savings referred to above this helped us generate EBITDA before share-based payment expenses of EUR -13.3 million, which was clearly within the EUR -11.5 million to EUR -14.0 million range forecast at the beginning of the year.

At EUR 13.5 million, cash consumption was somewhat higher than EBITDA before share-based payment expenses, which was due mainly to a large non-recurring payment at the beginning of the reporting period in connection with prior-year expenses. It remained necessary for the Company to raise further liquidity from the capital market in 2019, which we did in the fourth quarter of the year through a successful rights issue leading to net cash inflows of EUR 7.1 million.

The equity ratio amounted to EUR 68.8% at the end of the reporting period after starting at 85.3%. We ended fiscal year 2019 with EUR 6.1 million less in available liquidity than we had begun with (EUR 11.0 million as of 31 December 2019 versus EUR 17.1 at the start of the year).

In conclusion, the Company's financial situation appeared somewhat weaker for part of the reporting period before regaining some stability as a result of the successful capital increase. However, the liquidity available at the end of the year cannot be considered sufficient to fully cover even constant cash requirements in 2020, let alone any increase.

## FINANCIALS

### Results of operations

Because the issue of reimbursement for Epi proColon on the U.S. market remained unresolved in 2019, our revenue for the year of EUR 1.1 million remained below our original expectations, which had been based on assumptions including that a positive reimbursement decision would be made in the second half of 2019. On this basis, we had announced expected revenue of EUR 3 million to EUR 6 million at the start of the year. With the release of the Q3 2019 results, however, we had lowered this forecast to at least EUR 1.0 million, a figure that we ultimately met.

This was a decrease compared to prior-year revenue of EUR 1.5 million. While our product revenue increased from EUR 0.8 million to EUR 1.0 million, the EUR 0.1 million in license revenue in 2019 lacked the license income originally expected from our Chinese partner. Product sales were the main contributor to overall revenue, with a large share generated by the business in the U.S.A.

Despite the declining licensing business, the gross margin increased from 71% in 2018 to 78% in the reporting period.

Other income increased by EUR 1.1 million to EUR 2.5 million in the fiscal year (2018: EUR 1.4 million) and primarily related to foreign exchange rate gains (EUR 2.2 million).

Research and development (R&D) costs rose from EUR 6.4 million in 2018 to EUR 7.3 million in the reporting period. A large part of the increase can be traced back to external costs that arose mainly in connection with carrying out our studies. This primarily concerned the post-approval study for Epi proColon and the HCC cross-section study in the U.S.A.

Selling, general and administrative (SG&A) costs amounted to EUR 8.9 million (2018: EUR 8.7 million). The increase was due to greater expenses for sales and marketing. An opposite effect came from personnel costs, which were higher in 2018 due to an increase in share-based payment expenses than in the reporting period.

Other expenses, almost all of which were due to foreign exchange rate losses as in the previous year, rose from EUR 0.3 million in 2018 to EUR 1.8 million in 2019. Net foreign exchange gains amounted to EUR 0.4 million (2018: EUR 0.4 million).

Total operating costs increased from EUR 15.9 million in 2018 to EUR 18.3 million in the year under review, primarily due to R&D costs and other expenses.

Earnings before interest and taxes (EBIT) decreased to EUR -14.7 million in 2019 from EUR -12.9 million in the previous year. Adjusted for depreciation and amortization, EBITDA amounted to EUR -14.2 million (2018: EUR -12.6 million). At the start of the year, our forecast for EBITDA before share-based payment expenses for 2019 was between EUR -11.5 million and EUR -14.0 million. The final figure on December 31, 2019 amounted to EUR -13.3 million (2018: EUR -11.4 million), which was better than expected due not only to the fact that overall costs were lower than budgeted, but also to the high level of other income.

The positive financial result of EUR 0.1 million in the reporting period (previous year: EUR -0.5 million) was mainly due to interest received on time deposits and interest expenses from the compounding of long-term leases.

The tax expense of EUR 2,5 million (previous year: tax income of EUR 0.7 million) was due to writing off the deferred tax assets that had been recognized in the past in respect of the tax loss carryforwards of the U.S. subsidiary. This took into consideration the liquidity situation as of the reporting date, which would not have allowed for the continuation of business activities beyond the end of 2020. Without further cash inflows, the utilization of these loss carryforwards by the subsidiary, which is also burdened with a history of losses, would have been considered highly unlikely.

## Financial position and cash flow

Our cash consumption rose from EUR 9.6 million in the previous year to EUR 13.5 million in 2019, which was caused mainly by higher operating expenditure.

At EUR -13.5 million, the cash flow from operating activities was higher than in the previous year (EUR -10.4 million) due primarily to the decline in EBITDA. In this context, the prior-year figure was buoyed by a stronger effect from working capital that no longer applied in the reporting period.

Under investing activities, payments were made to acquire items of property, plant and equipment in 2019 (EUR 0.1 million) and interest of EUR 0.2 million was received, which contributed to a cash flow from investing activities of EUR 47 thousand.

The cash flow from financing activities amounted to EUR 7.1 million in fiscal year 2019 (2018: EUR 13.3 million), calculated as the gross proceeds from our capital increase in November 2019 (EUR 8.3 million) less the associated expenditure (EUR 1.0 million) and payments for leases (EUR 0.2 million).

Liquidity declined to EUR 11.0 million as of the end of 2019 (comprising cash and cash equivalents of EUR 10.1 million and available-for-sale securities of EUR 0.9 million). It was therefore EUR 6.1 million below the figure of EUR 17.1 million recorded at the beginning of the year.

## Net asset position

Our equity ratio decreased in the reporting period, from 85.3% at the beginning of the year to 68.8% at the end of the year. Equity declined by EUR 9.0 million from EUR 18.6 million to EUR 9.6 million. The net loss for the year of EUR 17.0 million was partly offset by the capital increase in November.

Trade payables remain at the previous year level at EUR 1.4 million, which was attributable solely to effects relating to the reporting date. Other liabilities increased from EUR 0.8 million to EUR 1.4 million due mainly to the higher personnel claims in this period.

Current liabilities decreased from EUR 1.0 million as of the prior-year reporting date to EUR 0.6 million as of December 31, 2019. There was a significant reduction in provisions for employee bonuses, while larger additions had to be made to the other provisions.

Non-current assets decreased from EUR 3.6 million as of December 31, 2018 to EUR 1.9 million as of December 31, 2019. While amortization and impairment caused intangible assets to decline from EUR 0.5 million to EUR 0.3 million in this period, property, plant and equipment grew by EUR 0.8 million as a result of long-term leases recognized in non-current assets due to the first-time application of IFRS 16. The deferred tax assets previously recognized (December 31, 2018: EUR 2.4 million) were written off.

Current assets decreased from EUR 18.3 million at the start of 2019 to EUR 12.1 million as of the balance sheet date. A major reason was the EUR 6.1 million decline in liquidity (cash and cash equivalents decreased by EUR 6.3 million and marketable securities increased by EUR 0.2 million). Trade receivables decreased by EUR 0.1 million as against the prior-year reporting date. Other assets increased from EUR 0.6 million to EUR 0.7 million.

Total assets declined by EUR 7.8 million to EUR 14.0 million as of December 31, 2019 (December 31, 2018: EUR 21.8 million).

## EMPLOYEES

At the end of the reporting year we had 41 employees (December 31, 2018: 44). On average for the year, we employed 42 people (2018: 43). 30 employees are under contract with the German company and the remaining 12 with the U.S. subsidiary. Employee turnover was once again low. At no point did we have any problems filling vacant or newly created positions with qualified personnel when needed in either Germany or the U.S.A.

All of our employees in Germany work at the Company's headquarters in Berlin. We also commenced operating activities in the U.S.A. from our new location in San Diego, California in the spring of 2018. The expected reimbursement decision regarding Epi proColon in the U.S.A. had prompted us to plan new hires for 2019, but this did not come to fruition. We now expect to do so in 2020, with most of the jobs being in San Diego.

The 41 employees as of the end of 2019 included 21 employees across the areas of research, product development, IP, regulatory affairs, quality assurance and manufacturing. Their activities are reported as R&D costs in the financial statements. The remaining 20 employees reported as selling, general and administrative functions are active in the areas of business and commercial development, customer and technical service, accounting, finance, legal, human resources, IT, investor relations as well as general management.

We comply with all legal requirements regarding our employees, which also applies to compliance with the General Act on Equal Treatment (Allgemeines Gleichbehandlungsgesetz – AGG). Our employees are hired and promoted solely on the basis of their suitability, qualifications, motivation, willingness to perform and willingness to learn. The age structure and gender of our employees remained very well balanced in 2019. The headcount at the end of 2019 was roughly half men and half women.

Epigenomics supports its employees by offering flexible working (time) models, for example to improve work-life balance. Among other things, these include agreements on flexible working hours, part-time work and work from home. Personnel development measures and training opportunities for our employees are also very important to us. The Human Resources department also ensures occupational medical support for all of our employees.

Total personnel costs amounted to EUR 6.8 million in 2019, and were thus down somewhat on the prior-year figure of EUR 7.3 million with virtually no change in the average number of employees. While social security expenses were EUR 0.1 million higher than in 2018, total share-based payment expenses and bonuses for the Executive Board and employees fell by EUR 0.3 million in each case. These bonuses reward employees for achieving individual and collective targets.

In April 2019, we granted a total of 611,170 stock option rights to the Executive Board and Group employees. The rights derive from previous years' stock option plans, which were intended as an attractive incentive scheme for all employees, in particular senior management. The exercise price of the newly issued rights, which cannot be exercised before April 2023, has been set at EUR 1.92. We consider such long-term stock option programs to be a key instrument in aligning employees' and management's interests with corporate objectives and in motivating our staff. Details of this program and the stock option and phantom stock programs of previous years can be found in the notes to the consolidated financial statements for 2019.

## FINANCIAL AND NON-FINANCIAL PERFORMANCE INDICATORS

Epigenomics' goal is to increase shareholder value by systematically pursuing our mission and strategy. We use financial and non-financial performance indicators to control and monitor the success of our activities on an ongoing basis.

The financial indicators used to manage our operations include key financial figures which are well established and recognized by the international investor community. These include revenue, gross margin, EBIT, EBITDA adjusted for share-based payments, the operating result, and earnings per share. Revenue and EBITDA before share-based payment expenses are our key indicators with regard to managing the Company and, therefore, our financial market reporting.

The aforementioned indicators are monitored closely on a monthly basis and published on a quarterly basis in our mandatory and voluntary financial reports. They are regularly compared against planned and forecast values, and against external benchmarks where appropriate. As we remain reliant on external funding from investors to support our business operations, our cash consumption is among the important financial indicators and is therefore monitored extremely closely and reported regularly.

The non-financial performance indicators important for our business primarily relate to our R&D and commercial activities. This set of indicators includes sensitivity and specificity numbers for our products as obtained from scientific studies and the results of studies published in renowned scientific journals as well as the number of tests performed using our products. Progress in obtaining market approval from health authorities, the successful passing of audits of our quality management system, and reaching benchmarks and milestones in our development activities are further important indicators in measuring achievement of our targets and in helping us manage our internal activities and external communication. Last but not least, we monitor customer satisfaction using indicators such as delivery and/or turnaround times, number and nature of audit findings and complaint rates.

## OVERALL ASSESSMENT OF THE 2019 FISCAL YEAR

Our expectations regarding a positive reimbursement decision by CMS in the U.S.A. remained unfulfilled in 2019, and the anticipated breakthrough in terms of revenue continued to elude us. However, CMS did commit to opening an NCD procedure for our Septin9 test, which was done finally two months after the end of the reporting period. This matter will continue to require patience on our part. Customers, suppliers, employees and investors were affected in equal measure, since a positive reimbursement decision is not only regarded as a game changer in general but also as an absolute necessity for the future success of Epigenomics.

Nevertheless, we made headway in R&D and the studies initiated by us achieved good progress over the year. We were particularly pleased with the results and publication of the microsimulation study on CRC screening towards the end of the year and the response this received. However, we also faced a setback on the Chinese market in the reporting period after the local patent authorities revoked the patent for our Septin9 marker. For the time being, this has closed the door we had previously opened to Asia's largest healthcare market. Despite this disappointing development and the fact that we have still not obtained a reimbursement decision in the U.S., we were able to conduct another rights issue in the fourth quarter of 2019 that was primarily supported by our larger investors. This positive development, which underscored the continuing confidence of our existing investors, has encouraged us to bolster our efforts to obtain a reimbursement decision and to renew our commitment to securing the commercial success of our main product.

Business development in 2019 thus continued to fall short of our expectations. This is due above all to the lack of a decision by CMS and the decision made by the Chinese patent tribunal.

# REPORT ON EXPECTED DEVELOPMENTS AND ON OPPORTUNITIES AND RISKS

## REPORT ON EXPECTED DEVELOPMENTS

### Planned strategic direction of Epigenomics in the coming years

Over the next years, we plan to continue to establish our Company as one of the premier global players for liquid biopsy-based cancer tests. Initially, the key success factor will be to successfully commercialize Epi proColon on the U.S. market. All other projects and plans must be considered subordinate to that goal.

Over the short term, our commercial efforts in the U.S.A. will continue to be focused on inclusion in the guidelines issued by medical professional societies, and reimbursement by insurers. Over the medium term, our primary goals for the U.S.A. are to increase product awareness and obtain market approval for HCCBloodTest. As the first ever FDA-approved liquid biopsy test for cancer screening, we believe that the market opportunity is substantial. The data from the microsimulation study by Harvard Medical School published in the reporting period took the discussions with healthcare authorities, medical professional societies and physicians to a new level. The results of the study clearly support the argument that blood-based tests can increase adherence rates in cancer screening without loss of effectiveness. In the past, we have repeatedly demonstrated that patients generally prefer blood-based tests to stool-based tests. The inclusion of our Septin9 test in the guidelines issued by medical professional societies in the U.S. and its reimbursement by health insurers will increase the use of our test and in doing so also raise screening rates in the population. To process higher volumes more efficiently in the future, we are also able to provide our laboratory customers with automation solutions that include high and medium throughput options.

We will also attempt to leverage our HCCBloodTest, which still has to be tested in further complex clinical studies, to establish our technologies in liver cancer screening in the U.S.A. In the absence of any as-yet generally recognized standard of care for this area of application worldwide, we see a particularly good opportunity to secure a market breakthrough in the field as soon as the test receives regulatory approval.

We will continue to address the European market opportunistically. In order to be more successful in this respect, we may have to engage in more partnerships or expanded partnerships in this area. Of course, success stories from the U.S.A. will be very helpful to us. The market success of our blood-based test and its reimbursement in the U.S. healthcare system will give us a significantly stronger basis for argumentation with respect to medical professional societies, health insurers and physicians in Europe.

In line with our plans for the HCCBloodTest, our R&D activities will firstly focus on the existing product range in CRC and lung cancer products to develop successive generations of products with even greater performance. Secondly, we will expand our portfolio by broadening the scope of our proprietary biomarkers to related clinical applications.

We aim to maintain our leadership in DNA methylation technologies and to provide selected partners access to our know-how, expertise and IP in this field via licenses, patent sales, and/or services. Our goal remains to leverage proprietary products to further establish Epigenomics as the leading company for liquid biopsy-based cancer tests in the market, either directly or through commercial partnerships. We believe we have a solid foundation upon which to execute our corporate strategy.

## Expected economic environment in the coming years

We expect overall economic conditions and the capital market environment in Europe and the U.S.A. to remain challenging. In light of the current performance of the global economy, we expect that uncertainty on the capital markets – especially in Europe – could persist in the near to medium term. Geopolitical conditions have become ever more complex in recent years and there is no indication at present that the global environment will become any calmer in the coming years. Within the EU alone, the disagreements and disputes about future direction came to a head with Brexit. Nonetheless, the UK's ultimate departure from the bloc – now expected to occur in 2020 – will not put an end to them. At this point it must be emphasized that Brexit will not have any economic consequences for our Company: Our products are not present on the UK market and we do not have any material supplier relationships in the UK.

At the beginning of 2020 – after the end of the reporting period – there was an increased international spread of the corona virus, which first appeared in China, with in some cases strong effects on the global economy. The further course of this epidemic definitely harbors many imponderable risks, but the extent and duration of these risks cannot yet be adequately specified. Until the editorial deadline of this Group management report, we have dealt with this risk and its potential impact on Epigenomics as far as possible and have taken appropriate precautionary measures.

Nevertheless, we also assume that whatever setbacks there may be, life sciences companies with a solid performance record should still be able to raise equity capital. It should also be taken into account that the percentage of GDP spent on healthcare will likely grow even in the developed world (especially in the U.S.A.), and will certainly increase in emerging countries like China.

The USD/EUR exchange rate became somewhat less volatile in 2019 but it remains highly sensitive to developments in the global economy. Predicting exchange rate movements in 2020 remains just as difficult as it has been in previous years. As usual, expert forecasts diverge widely. With this in mind, we decided in line with previous years' practice to set our budget rate for 2020 at the effective exchange rate at the time the budget was drawn up (mid-November 2019), i.e., at EUR/USD 1.10.

## Outlook on earnings

Our business forecasts for 2020 continue to depend largely on securing reimbursement for Epi proColon from public and private health insurers in the U.S.A. The timing of the decision is obviously also a key factor for our forecasts. U.S. healthcare agency CMS notified us as early as spring 2019 that it had committed to opening a National Coverage Determination (NCD) review procedure. Contrary to our expectations, this procedure was not opened in 2019 but only two months after the end of the reporting period in February 2020. Final decisions under this type of review procedure are issued within nine months at most. We expect a rapid jump in product revenue once a final decision will have been issued. Assuming that the review process will take nine months and will end with a positive reimbursement decision, we currently expect total revenue of between EUR 1.0 million and EUR 2.0 million in 2020. The sooner the decision, the greater the potential increase in revenue. Without reimbursement, our product sales – both in the U.S.A. and in Europe – will increase only slightly from their current levels.

Our liquidity situation at the end of 2019 and the above revenue forecast mean that we will initially be severely restricted on the cost side in 2020. We are consequently not planning to expand or intensify our operational activities in 2020. On the contrary, with studies now completed (e.g., the cross-section study for our HCCBloodTest in the U.S.A.), we expect things to settle down on the cost side. Our commercialization preparations in the U.S.A. were already well advanced in the reporting period, meaning that we can also expect cost reductions in this respect in 2020 if the NCD is not yet granted.

Against the backdrop of the revenue and cost forecasts, we assume an operating loss again for 2020. We expect EBITDA before share-based payment expenses of between EUR -10.5 million and EUR -12.5 million in fiscal year 2020.

## Outlook on financial position

Based on our business plans for 2020, we expect cash consumption in line with our EBITDA guidance (before share-based payment expenses). The planned cash expenditures for 2020 are connected with our ongoing R&D and commercialization activities. Our PERT study in the U.S.A. will continue to be a material factor where R&D is concerned.

We ended the 2019 fiscal year with EUR 11.0 million in cash and marketable securities. At our projected cash consumption, and taking into account the capital increase carried out after the end of the reporting period on March 31, 2020, which resulted in a net cash inflow of approximately EUR 3.6 million, the existing financial resources are sufficient to finance the Company's operating activities until the first quarter of 2021 according to our planning. Accordingly, we are confident that the commencement of the NCD procedure by CMS will thus increase investor confidence in our shares and boost their price. This would enable us to plan and, if necessary, implement further financing measures in the following course of 2020. It will be possible to use these additional funds primarily for projects that we initially had to shelve due to the financial situation to date. On the other hand, we will also be able to implement measures including more stringent cost savings to further reduce cash consumption.

## Outlook on non-financial performance indicators

Our objective for fiscal year 2020 remains to obtain positive reimbursement decisions for the commercialization of Epi proColon in the U.S.A., which we had initially expected at a considerably earlier point. The inclusion of Epi proColon in further CRC guidelines issued by medical professional societies is an important prerequisite for reimbursement by payors in the U.S. healthcare system. In 2020, we are also continuing to recruit patients for the post-approval study.

With respect to R&D, we are working on the discovery and validation of further biomarkers to develop and improve existing products, as well as on our NGS portfolio for lung and colorectal cancer that will be clinically validated using plasma samples. Our R&D team will also work on designing future clinical studies.

## Mid-term opportunities

The market opportunities in the fields of CRC and liver cancer in the U.S.A. and other global markets are considerable. With regard to Epi proColon, in fiscal year 2020 we will continue to focus on inclusion in the screening guidelines of medical professional societies and on reimbursement. Successfully reaching these milestones will position Epigenomics for significant test volume and revenue growth over the next two to five years. We also expect our HCCBloodTest for liver cancer screening to be approved for marketing in the U.S.A. in the medium term. Based on the study data to be collected in the next two to three years for this new product, we believe it too will generate rapid revenue growth once approved. We also intend to generate measurable sales during that time in Europe, where the CE marking theoretically makes it possible to market the product already.

Establishing a leadership position in innovative liquid biopsy tests for cancer screening allows us to work towards launching further pioneering products on the market going forward.

There are significant market opportunities for further cancer screening tests beyond the CRC, liver and lung cancer blood tests already developed by Epigenomics. We are currently identifying new biomarker opportunities for various cancers such as bladder cancer. In addition, we are also investigating these biomarkers with respect to sequencing by means of various platform technologies.

For our shareholders there is the opportunity to see the enterprise value increase from catalytic events, primarily the successful marketing of our products in the U.S.A. and also additional licensing partnerships or other forms of commercial success.

### Overall outlook for the Epigenomics Group

Epigenomics is a leader in the research and development of liquid biopsy tests for cancer detection. The reimbursement we seek for our lead product Epi proColon in the U.S.A. offers the opportunity to open up innovative CTC screening to a wide range of patients, saving lives.

Following a positive reimbursement decision, we expect to generate significant growth in the coming years. The CRC screening opportunity in the U.S.A. alone represents a target market of over 30 million unscreened patients. The HCCBloodTest is another product that we launched in the reporting year and that promises noticeable positive contributions to our financial results, at least in the medium term. We are building a foundation on which we can increase test volume and revenue as well as develop additional products and launch them on the market, thus giving us the opportunity to become a global leader in molecular diagnostics.

In order to ensure our ability to continue as a going concern, sufficient liquidity has to be maintained and/or additional liquidity secured. We aim to have liquidity to finance at least one year's operations at all times. Currently, we still rely on the capital markets to raise equity and debt financing from time to time and expect that we will have to make use of this alternative again in the near future. In order to not have to rely exclusively on capital market financing for our business operations, we will continue to evaluate other reasonable strategic options for our further development.

## REPORT ON OPPORTUNITIES AND RISKS

### Risk management system

Epigenomics is a globally operating cancer molecular diagnostics company and, as such, subject to many industry and company-specific opportunities and risks. In line with the German Corporate Control and Transparency Act (Gesetz zur Kontrolle und Transparenz im Unternehmensbereich – KonTraG), Epigenomics has an established, comprehensive and effective system to enable early identification, assessment, communication and management of opportunities and risks across all of its functions and operations. The underlying principles and guidelines have been documented in a Group-wide Risk Management Policy. The goal of this policy and all related instruments is to identify risks systematically at the earliest possible stage, estimate their likelihood of occurrence as well as potential qualitative and quantitative impact, and design and implement effective countermeasures. The risk management system is regularly discussed and refined on an ongoing basis at the operational level, senior management level and the Executive Board and Supervisory Board levels. The core principles are transparency of risks and opportunities across all functions and operations, interactive evaluation of these risks and opportunities and a culture of seizing opportunities and accepting risks as an integral part of doing business in cancer molecular diagnostics, but doing so responsibly and striving for an optimal balance between opportunities and risks.

Every risk has a clearly identified risk owner whose responsibility it is to continuously monitor and control risks as well as manage the implementation of any countermeasures. At quarterly intervals, these risk owners report to the corporate risk manager who communicates the risks to the Executive Board, which in turn reports to the Supervisory Board. In case of any material risk, this risk is immediately brought to the attention of the corporate risk manager and discussed at the appropriate board levels. Significant risks and the risk management system itself were also discussed in broader management groups as well as between the Company's auditor and the Supervisory Board throughout the year.

Our management structure, our organizational measures for identifying and assessing opportunities and risks, the monthly internal and the quarterly external reporting and our control systems therefore all form an integral part of the overall risk management system which is standardized across all functions and locations. All of these tools are regularly monitored for effectiveness and optimized. They are also reviewed by our external auditor and the Supervisory Board.

Alongside the opportunities that our business model offers, there are a number of significant risks to which Epigenomics is exposed, which individually or when combined could permanently impact our results of operations, financial position and net assets, as well as our share price. The main opportunities and risks are described below.

## Business-related opportunities and risks

Epigenomics offers three blood-based IVD products in different markets: Epi proColon, an FDA-approved and CE-marked CRC screening test; Epi proLung, a CE-marked lung cancer reflex test based on bronchial lavage; and HCCBloodTest used to screen for liver cancer, which has likewise received CE marking. To date, however, the product revenue from Epi proColon has been relatively moderate, and the sales market for the other two products still has to be developed and tapped into. Following our decision to initially focus the organization and its commercial activities on the key U.S. market for our lead product Epi proColon, regulatory approval and the still outstanding reimbursement decisions are crucial for us to be able to generate revenue from product sales in conjunction with our partners and customers as well as licensing agreements with third parties.

Our ability to grow revenue from our products will depend, among other factors, on the successful marketing and commercialization of our tests with key stakeholders in the healthcare industry. We have entered into a commercial partnership with Polymedco, a well-established and experienced U.S. company that has been successfully marketing and selling diagnostics tests in North America for years. The agreement gives us access to existing sales and marketing channels that we would have had to build up on our own without this partnership. This collaboration can therefore be seen as a strategy of reducing the risks associated with developing a market independently and from scratch. Nevertheless, even with such an experienced partner, there are still risks remaining with regard to commercialization. In the end, we have to rely on our ability to create sufficient customer acceptance for our product as soon as possible. We not only have to address the screening population itself, but also have to generate support in the medical and laboratory customer communities. To this effect we have extended our network in the medical community over recent years, in order to gain support for our product from key opinion leaders in the field. However, there is no guarantee that all of those involved can be convinced of the advantages of a blood-based early detection test.

An important element in being commercially successful is the availability of reimbursement for Epi proColon testing by insurance carriers including Medicare (CMS). Securing Medicare coverage at an acceptable reimbursement rate is an opportunity for the Company, as the Medicare population represents around 40% of our available market in the U.S.A. A negative reimbursement decision would also have an impact on the decisions of other major payors in the U.S. healthcare system and would have severe consequences for the Company. A positive decision would offer us the opportunity to achieve commercial success in our key market. It could also have a positive effect on subsequent reimbursement decisions and commercialization in other countries.

Reimbursement risk is also related to inclusion in various CRC screening guidelines issued by medical professional societies. Payors and health systems use these guidelines as inputs for their payment determinations and exclusion or limited inclusion therefore pose a risk to reimbursement and market acceptance. Here, too, the opportunity that arises for us in having Epi proColon included in the guidelines of one of the leading U.S. medical professional societies lies in the signal that this sends to comparable bodies in other markets.

Considering the lack of standardized reimbursement rules in Europe, the market acceptance of our main product in the different European markets will remain moderate for the foreseeable future. However, a positive reimbursement decision in any European country represents a significant opportunity for the product in that market. At this point, though, we have no indication of reimbursement negotiations for products like ours taking place on a broader scale in any of the major European countries. Our resources are currently insufficient to directly address and develop the European markets. As a result, there is a risk that our technological advantage over the competition will decrease or vanish altogether.

In our efforts to be able to sell our products – either directly or through partners – in the laboratory market in the U.S.A. and other countries, we have established relationships with contract manufacturers and vendors of specialized reagents to ensure an adequate supply of our product at any time. The ability of our manufacturing partners to provide us with sufficient quantities of product at quality levels mandated by regulatory authorities poses a potential risk to the Company. A failure on the part of any of these partners or product vendors could lead to us being unable to supply products to the market and thus negatively impact our ability to generate revenue. In order to mitigate this risk we work with highly capable companies in this field, with ample experience and a track record of providing high-quality products to diagnostic companies.

In most markets, the performance of the Epi proColon test is restricted to certain instruments specifically detailed in our regulatory filings. We are therefore dependent on these instruments being available to laboratory customers who buy the test from our partners or from us directly. Any changes in the products offered by these laboratory instrument manufacturers might limit the ability of our customers to order the test from us. This again would pose a risk of us not being able to generate revenue and thus negatively impact our financial performance. To mitigate this risk, we are constantly observing the market, are in dialog with instrument manufacturers and remain prepared to validate our diagnostic products on other instrumentation platforms in order to be able to react to any changes with respect to instruments being sold and installed at our customers' laboratories.

Ahead of applying for market approval with the FDA in the U.S.A., we also entered into licensing agreements with selected reference laboratories in North America, which have introduced their own versions of Septin9-based LDTs (laboratory-developed tests) in the U.S. market. Since 2011, Quest has offered LDT ColoVantage to aid detection of CRC and since the end of 2016 has been the only U.S. lab still marketing an LDT version of Septin9. We are in discussions to convert Quest to the FDA approved version of the test, as already done by our partner ARUP. The risk remains that such a transition might not occur, which would limit our ability to fully capture the economic benefit of our technology given that this LDT license agreement is not as attractive as the ability to directly sell our products to laboratory customers.

The area of CRC screening has seen intense competition in recent years. Some competitors have made progress in developing other non-invasive CRC screening tests, although most of them are offering these as LDT services. It is important that we and our partners defend the lead position established in terms of clinical validation with the only FDA-approved CRC blood test.

A further increase in competition for liquid biopsy tests was observed in the reporting period. CRC in particular is high on the agenda of competitors. We view this first of all as evidence that we are on the right track marketing our products in a highly lucrative market. However, the opportunities offered by the growing liquid biopsies market go hand in hand with the risk of increasing competition for exactly this reason. For us, rising competition is thus a constant reminder not to let up in our efforts to develop new and refine existing products. The microsimulation study by Harvard Medical School presented in the reporting period shows that Epi proColon is a highly effective product for CRC screening. Going forward, each and every competitor product will have to be measured against this degree of effectiveness. However, the large budgets that are made available in some cases to develop such competitor products will also make it difficult for our competitors to manufacture a product that is technically superior but at the same time more cost-efficient. We therefore see ourselves as well prepared for future competition.

Epigenomics' future success partly relies on the experience and expertise of the management and personnel, which represents a decisive competitive advantage for the Company. Our ability to retain the current level of expertise through key employees in the Company and to be able to recruit such expertise as might become necessary remains a critical success factor and could impact the future results of operations and financial position. Management has implemented a retention plan in the form of share-based payment incentives with the objective of securing long-term commitment from key employees.

In order to achieve successful commercialization of our products and continue development of our next generation products, the business must be appropriately capitalized. Without sufficient capital in the medium to long term, the business could be at risk of not achieving our corporate goals.

### IP-related opportunities and risks

Our business relies heavily on commercializing our intellectual property as well as on licenses based on our know-how, licenses to third-party patents and our own patent applications. Any negative impact on the scope, duration, depth and breadth of any single claim granted, on their regional coverage, on competing IP that we might depend on, as well as difficulties in enforcing protection, inadvertent infringement of other IP, preventing others from infringing our IP, our inability to in-license key IP, etc., would negatively impact our cost base, our competitiveness and our ability to commercialize our products and to enter into partnerships, our revenue and ultimately our earnings and overall commercial success.

In light of this, we face the possible risk of a challenge to the validity, ownership or enforceability of our patents in court. For instance, in the year under review an investigation department at the patent office in China declared that our Septin9 patent was partially invalid, forcing us to appeal to China's supreme court against this decision. This type of litigation itself can result in substantial costs, delay the commercialization of our products and divert our management's attention and resources. In addition, the current situation in China has essentially resulted in the revocation of our patent protection there – at least temporarily. As a consequence, competitors developing imitation and copycat products are free to develop the market in our absence until a final decision has been issued by the supreme court. The Chinese market – which originally seemed very important for us – is hard to monitor from the outside, whether due to complexity caused by its sheer size or other factors such as language barriers. Thus when intellectual property rights are ultimately found to have been infringed or patents declared invalid, the process of defending and asserting our rights and rejecting and prosecuting infringers can prove drawn-out and costly. It may also happen in the future in other markets that a competitor successfully challenges our patents or that a challenge results in limiting the coverage of our patents. As a result, we could lose important patent protection for our technologies and we could lose the ability to prevent others from utilizing these technologies without compensating us.

Since, over recent years, we have moved our business from exclusively developing new products to also marketing and selling our existing products launched in Europe, patent protection is now even more important to prevent competitors from launching competing products based on our biomarkers. To this end, we have also conducted extensive competition analyses for our U.S. product, yielding satisfactory results, at least for the time being. Further analyses will be conducted as soon as new products or changes to existing products are planned and such analyses become appropriate. As a precautionary measure, we constantly monitor the status of patent applications deemed to be relevant and work closely with our IP lawyers to ensure the best possible protection of our IP rights in light of ongoing developments in the field.

We consider the extensive patent protection on our biomarkers and underlying technologies to be a competitive advantage over many of our competitors. While other companies partly rely on generic technologies or products, we have the distinct advantage of having secured an extensive proprietary intellectual property position, setting us apart from other companies in the field of DNA-based diagnostics. This puts us in the position of being able to commercialize our own products while limiting the business risk of competition, even by larger companies in the field.

At the same time, the progress made in managing our IP portfolio and obtaining several key patents for cancer testing (such as our Septin9 and SHOX2 biomarkers) puts Epigenomics in a unique position to provide attractive licensing opportunities for the growing number of commercial players active in DNA methylation and secure a significant increase in the Company's overall value.

### Opportunities and risks related to the regulatory environment

The regulatory environment in the U.S.A. and the rest of the world is challenging. In the U.S.A. in particular, the Trump administration has a stated goal of repealing and replacing the Affordable Care Act and the first steps have already been taken in doing so. While we believe the consequences will be beneficial to neutral for our FDA approved product, it is still an unknown and a risk.

The regulatory environment for cancer molecular diagnostics in the U.S.A. is complex, poses high barriers for new products to enter the market, and is affected by numerous entities including the FDA, CMS, United States Preventive Services Task Force (USPSTF), and Congress. New or modified regulations from any of these entities could have a material impact on our business. We utilize both internal and external resources to monitor the activities of these organizations, and to react where necessary in order to mitigate the corresponding risks.

Epi proColon has received a PMA by the FDA, and therefore passed the highest and most difficult approval hurdle in the U.S.A. Any change in the regulatory landscape which would make it easier for competitors to develop and commercialize LDTs/homebrew assays, and therefore to compete against companies with PMA approved products, would also pose a risk for our business.

In parallel, there are increasing trends towards tightening regulatory standards on the Chinese and European markets. As mentioned for the U.S.A. above, we have always chosen the regulated path to commercialization of our products. Given the high regulatory and quality standards under which we operate, going forward we consider this approach to be a competitive advantage over those companies which do not or cannot comply with these requirements.

### Financial opportunities and risks

As of December 31, 2019, our available liquidity (cash, cash equivalents and marketable securities) amounted to EUR 11.0 million. Management is aware of the risk of having limited liquid assets to appropriately sustain the operations of the business. Without further capital measures and/or cost reduction programs, the continued existence of the Company as a going concern beyond the beginning of 2021 is at risk. In order to extend our financial reach, further liquid funds are therefore to be raised as early as possible in fiscal year 2020. A first step in this direction was the capital increase executed after the end of the reporting period on March 31, 2020, with net proceeds of EUR 3.6 million generated. In recent years, we have repeatedly demonstrated that additional financial resources are accessible to us, even under difficult conditions. We will examine all strategic options in the short term, first and foremost the possibility to attract further funding on the capital market.

For us as a listed company, the capital market is a constant source of opportunity and risk alike. The opportunity lies in being able to raise fresh capital on the market from time to time, both from existing and new investors. We took advantage of this opportunity each year between 2013 and 2019, and over those six years raised more than EUR 84 million in fresh capital via a range of transactions (rights issues, private placements, convertible bond issues). The market environment prior to or during these transactions was not always in our favor. Nevertheless, one obvious risk is that our share price is constantly exposed to the market. This means that the share price will not necessarily react positively even if we report success, for example if negative overall movements in the market cancel out our good news. All the more, a lack of positive communications or even adverse disclosures and declining investor interest can have a considerable impact and exert pressure on our share price. A low and/or declining share price reduces investors' appetite to subscribe for new shares, and the amount of capital raised from issuing the new shares decreases accordingly. Any drop in share price below the par value of EUR 1.00 per share would completely rule out raising capital in this way. Such a scenario therefore threatens the Company's continued existence and poses the risk of insolvency.

Also in this context, it is necessary to point out the special situation of the beginning of a global economic crisis in connection with the corona virus in February 2020 – after the end of the reporting period. The further course of this epidemic definitely harbors many imponderable risks, which, however, cannot yet be sufficiently specified in terms of their extent and duration. Until the editorial deadline of this Group Management Report, we have addressed this risk and its potential impact on Epigenomics as far as possible and have taken appropriate precautionary measures. Typically, economic crises and sharply declining stock prices lead to a general restraint of investors. This also results in a risk to the continued existence of the Company as a going concern to the extent that the capital measures necessary for Epigenomics could not be implemented at all or only to an insufficient extent.

Following a positive reimbursement decision for us and successful progress in launching Epi proColon on the U.S. market, we expect to be able to generate more income from product sales, which would help in reducing our operating loss over time. By contrast, if the demand for our product is below expectations and/or reimbursement decisions are delayed or are not taken in our favor, we would face the risk of further deterioration of our short-term financial position. Under such circumstances, this could result in lower numbers of tests sold and/or in lower than planned prices for the test, which as a consequence could make us miss our revenue, margin and/or earnings targets.

To avoid a costly setup of an internal production site and the maintenance of such a facility and qualified staff to meet the required GMP standards, we currently do not manufacture the Epi proColon test kits ourselves, but have outsourced these activities to contract manufacturing providers. Thus, we are exposed to the risk of dependence on our contract manufacturers. Ahead of the market launch of Epi proColon in the U.S.A., we addressed this risk by additionally implementing the manufacturing processes with a qualified alternative supplier capable of producing the test kits for us with the same quality in a relatively short amount of time should our primary supplier experience interruptions in production. This investment and the binding of resources are deemed appropriate as a risk mitigation strategy.

At the same time, the assembly of our test kits requires specific consumables and materials from audited suppliers of such goods. We cannot easily replace these consumables and materials or their suppliers in the event of delivery or quality problems, since the new vendor would require qualification in accordance with regulatory specifications. In the event of such a problem, any solution would be costly and time-consuming and could impede our ability to provide timely delivery of our products to customers.

As a Germany-based global company which reports in euros and has operations in the U.S.A., we are exposed to foreign exchange rate risks, predominantly stemming from the EUR/USD exchange rate. In the future, our partners' and distributors' net sales generated in U.S. dollars outside the eurozone and our expected royalties and profit shares may also be subject to exchange rate risks. We regularly monitor these risks and evaluate on a case-by-case basis whether hedging transactions are required to reduce our exposure to them. Additionally, it should be mentioned that transactions in foreign currencies might entail opportunities as well.

In line with its protectionist "America First" policy, the Trump administration is still considering punitive tariffs on products manufactured abroad but sold on the U.S. market. This also poses the risk that, going forward, the test we have manufactured in Europe to date could be faced with tariffs when exported to the U.S.A., and that we might not be able to pass the costs on to our customers. Although we have yet to see any signs that companies of our size or from our industry (diagnostics) – or German companies in particular – could be threatened, we are still keeping a close watch on the political developments in the U.S.A. and will establish alternative strategies for a scenario in which we are hit by such a protectionist measure. In principle, we would be able to rapidly relocate production of our test kits intended for the U.S. to the U.S.A.

We have reduced our portfolio of available-for-sale securities over recent years down to a single remaining item. The historical investment in this remaining item was made in compliance with the Company's investment policy, which was approved by the Supervisory Board. This policy stipulates that investments may only be made in items with an "investment grade" rating. Our securities portfolio is exposed to price risks – in the form of interest rate, issuer and market-related impairment risks – and liquidity risks. Under specific market conditions it could be difficult or impossible to liquidate the securities in the short-term at their fair value – regardless of whether or not the issuer has a good rating. We have not made any investments in securities in recent years, and as part of our risk mitigation strategy have invested exclusively in money market instruments (i.e., demand deposits, daily and time deposits) on euro or U.S. dollar basis to maximize the availability of liquidity. At the same time, we accept the lack of returns that can be generated in the money market due to the persistently low interest rates. In 2020 and going forward, we will continue to maintain as much of our liquid assets in the form of cash and the most secure cash equivalents possible.

## Other opportunities and risks

We continuously monitor all applicable environmental, health and safety, operational and other applicable statutory and industrial guidelines, and have implemented functions to comply with all of these effectively at each of our business locations. To minimize the potential impact from a variety of tax, corporate, employment, competition, IP and other legal frameworks, we base our decision-making and design of our policies and processes on the advice of internal experts and recognized external advisors in each of these areas. Wherever expedient and appropriate, we recognize provisions to cover any potential liability. There are also risks that are directly associated with our share price development. Comparatively low levels of liquidity in the stock, very high volatility based on all of the factors described above, as well as external influences and negative perceptions by others pose a risk of being wrongly assessed by capital markets participants (particularly analysts and investors). This could lead to unjustified stock sales by shareholders and to a sharp decline in our share price, which could negatively impact the capital market's perception of us as a listed company. At the same time, the volatility in our share price represents an opportunity to continuously find new investors willing to take the risk of an investment in the Company, even in more challenging times. In order to seize this opportunity, we maintain an active dialog with market participants and the Company's shareholders through our investor relations efforts.

There could potentially be other risks as well as significant opportunities beyond those described here that we currently either deem of lesser importance or of which we were not aware of when preparing this Group management report. For a more detailed presentation, of the risks in particular, please also refer to the prospectus that we issued in connection with the capital increase carried out in November 2019. This is available on our website (https://www.epigenomics.com/capital-increase-2019/).

## Summary of the opportunity and risk situation of the Epigenomics Group

The commercial opportunities and risks arising for our lead product, Epi proColon, in the U.S.A. are still dominated by issues surrounding potential reimbursement and inclusion in the screening guidelines issued by medical professional societies. We are not alone in believing that broad market penetration and therefore commercial success for our product in the U.S.A. depends on inclusion in the corresponding guidelines and a positive reimbursement decision at an appropriate rate. Failure to obtain favorable reimbursement for our product as well as lack of market acceptance and penetration in the U.S.A. based on lack of inclusion in medical guidelines or for any other reason, would have a material impact on our results of operations, financial position and net assets, and our ability to raise further capital.

Even if we are successful in the process of achieving guideline inclusion and reimbursement in the U.S.A. described above, we still face the risk that each or all of these steps could take longer than anticipated, thus resulting in slower than expected commercial adoption. In order to compensate for further potential delay in U.S. market penetration, we will maintain our commercial efforts in other countries and remain committed to supporting our partners there. Based on the medical need prevailing in most of the countries around the world we address with our products, there are still major untapped commercial opportunities which we have to make maximum possible use of.

Despite the funds raised on the capital markets in recent years, as a company with significant commercial challenges and opportunities we remain constrained in our financial resources. This limits our ability to cope with potential additional hurdles in attaining a positive reimbursement decision and in our commercial activities. Ultimately, we see our ability to access additional capital to reach our commercial goals as an opportunity to mitigate illiquidity risk which could jeopardize the Company's ability to continue as a going concern. A failure to raise capital to appropriately fund business operations might however lead to a total loss of value in our stock.

# CORPORATE GOVERNANCE

For the Executive Board and the Supervisory Board of Epigenomics, corporate governance lies at the heart of responsible and ethical management. The Executive Board and the Supervisory Board maintained a very active exchange throughout 2019 in order to generate long-term value for our shareholders. This represents a key element of sound corporate governance. Moreover, openness and transparency in our corporate communications with shareholders, employees, the authorities, the general public and other stakeholder groups represent an overarching principle in our approach towards sound corporate governance.

We welcome the German Corporate Governance Code (also referred to below as the "Code") and we systematically and regularly monitor compliance with the German Corporate Governance principles, making amendments wherever possible to ensure fair and responsible corporate management in line with the most recent version of the Code.

In certain aspects, Epigenomics' corporate governance principles go above and beyond the legal requirements and the recommendations of the Code. For example, we have established binding internal guidelines on insider trading and made these part of all employment agreements. Corporate governance compliance matters are overseen by our Manager Legal Affairs, who ensures adherence to the corporate governance principles. The Manager Legal Affairs maintains a regular dialog with the Executive Board and the Supervisory Board on all compliance-related matters.

While, going forward, we are clearly committed to adhering to the Code to the furthest extent possible, there are a few exceptions based on certain Company-specific factors and peculiarities where we chose or had to deviate from the Code.

## 2019 DECLARATION OF COMPLIANCE WITH THE GERMAN CORPORATE GOVERNANCE CODE PURSUANT TO SECTION 161 OF THE GERMAN STOCK CORPORATION ACT (AKTG)

Pursuant to section 161 of the German Stock Corporation Act (Aktiengesetz – AktG), each year the Executive Board and the Supervisory Board of Epigenomics AG as a listed company have to explain which recommendations of the German Corporate Governance Code were or were not complied with.

The Executive Board and the Supervisory Board of Epigenomics AG hereby declare that, since the last declaration of compliance in October 2018, Epigenomics AG has complied with the recommendations of the German Government Commission on the German Corporate Governance Code (hereinafter also "Code") in the version of February 7, 2017 (published by the Ministry of Justice in the official part of the Federal Gazette on April 24, 2017), with the exceptions set forth below. References to Sections, paragraphs and sentences of the Code relate to the version of the Code of February 7, 2017 (published by the Ministry of Justice in the official part of the Federal Gazette on April 24, 2017).

### Section 3.8 paragraph 3

Epigenomics AG has taken out a D&O policy. The policy includes as insured persons also the members of the Supervisory Board. Deviating from Section 3.8 Paragraph 3 the D&O policy does not provide for a deductible for members of the Supervisory Board. We consider such a deductible as inadequate taking into account the nature of the office as member of the Supervisory Board and the function of the Supervisory Board.

### Section 4.1.3 sentence 3

At Epigenomics AG there exists no separate call system which the employees can use to report, in a protected manner, suspected breaches of the law within the company. Owing to its size and organization, the company does not believe that it is necessary to implement such a system. Accordingly, the Company deviates from the recommendation pursuant to Section 4.1.3 sentence 3.

### Section 5.1.2 paragraph 1 sentence 2 and paragraph 2 sentence 3 and Section 5.4.1 paragraph 2 sentences 1 and 2 and paragraph 4

In the past, when filling the positions in its bodies, the Executive Board and the Supervisory Board considered the company-specific situation, and also made allowances for potential conflicts of interest as well as the international activities of the Company through an appropriate diversity of their members as well as the appointment of an adequate number of independent Supervisory Board members. Furthermore, the Supervisory Board determined a maximum term of membership and prepared a profile of skills and expertise for the entire Supervisory Board. In deviation from the recommendations in Section 5.1.2 paragraph 2 sentence 3 and in Section 5.4.1 paragraph 2 sentence 2, we however consider the commitment to institute special age limits for members of the Executive Board and the Supervisory Board as an inadequate limitation of the voting rights of our shareholders. In addition, we are convinced that sweeping requirements for the composition of the Executive Board as requested in Section 5.1.2 paragraph 1 sentence 2 constrain the Supervisory Board inadequately in its selection of suitable members of the Executive Board. The same applies accordingly to the specification of sweeping objectives regarding the composition of the Supervisory Board, as required in Section 5.4.1 paragraph 2 sentences 1 and 2 and assumed in Section 5.4.1 paragraph 4. We strive to achieve an appropriate diversity in the Executive Board and the Supervisory Board and to ensure that an adequate number of independent Supervisory Board members is elected. However, it is ultimately in the corporate interest to appoint as members of the Executive Board and the Supervisory Board the most suitable male or female candidates. Furthermore, the Supervisory Board has defined gender diversity objectives for the proportion of women in both the Executive Board and the Supervisory Board in accordance with Section 111 paragraph 5 of the Stock Corporation Act (Aktiengesetz – AktG). We therefore believe that (additional) sweeping requirements constitute an inadequate limitation of the individual selection of suitable male and female candidates for the Executive Board or the Supervisory Board. Furthermore, a target requirement regarding the composition of the Supervisory Board also inadequately impairs our shareholders' right to elect the Supervisory Board members. Accordingly, we did not and will not comply with these recommendations of the Code.

### Sections 5.3.1 Sentence 1, and 5.3.3

Due to the size of the company, the Supervisory Board did not and does not believe that it is necessary to form a Nomination Committee composed exclusively of shareholder representatives which recommends suitable Supervisory Board candidates for the proposals of the Supervisory Board to the general shareholders' meeting. Rather, this task is being performed by the full Supervisory Board. Owing to the size of the company and of the Supervisory Board, the Supervisory Board considers it adequate and appropriate to form only an Audit Committee. In contrast, the implementation of further committees was and is in the opinion of the Supervisory Board not necessary. Hence, the recommendations pursuant to Sections 5.3.1 sentence 1 and 5.3.3 continue not to be complied with.

Berlin, October 2019

| On behalf of the Supervisory Board: | On behalf of the Executive Board: | | |
|---|---|---|---|
| **Heino von Prondzynski** | **Greg Hamilton** | **Jorge Garces** | **Albert Weber** |
| (Chairman of the Supervisory Board) | (CEO) | (COO) | (EVP) |

After the end of the reporting period, the declaration was updated in March 2020 with the publication of a further deviation. In connection with the Covid-19 pandemic, the Company had informed the public that the previously announced date of publication of the consolidated financial statements and the Group management report for 2019 would be postponed by four weeks. However, such postponement is not in line with recommendation F.2 Code 2020/Section 7.1.2 Sentence 3 Code 2017, according to which these documents must be published within 90 days of the end of the financial year. The company assumes that this will be a one-off deviation.

The declaration of compliance and the aforementioned update has also been made permanently accessible to the general public in German and English on the Company's website under www.epigenomics.com/news-investors/corporate-governance.

## DECLARATION OF GOVERNANCE

In accordance with section 289f of the German Commercial Code (Handelsgesetzbuch – HGB), the Declaration of Governance has been made permanently accessible to the general public in German and English on Epigenomics AG's website under www.epigenomics.com/news-investors/corporate-governance.

## KEY FEATURES OF THE INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM RELATED TO THE GROUP ACCOUNTING PROCEDURES OF THE COMPANY

The internal control and risk management system (ICR) of Epigenomics has been set up by the Company's Executive Board, which also takes responsibility for it. The ICR is not defined as a comprehensive standardized system across the Company as a whole, but rather the scope of control and intensity are adjusted according to the respective risk. In addition, control options are used at all Company levels and supervision by management is ensured.

Epigenomics has developed an individual top-down approach for Company-wide controls and supervision, including verification of effectiveness. The flexible structure of the reporting system – supported by established tools and adjusted to the Company's needs – ensures transparency and targeted supervision by the internal control system. Financial and non-financial indicators are taken into account.

The Supervisory Board and the Executive Board continuously monitor the ICR. Apart from the true and fair view presented by the financial reporting it also ensures the efficiency and cost-effectiveness of the daily business as well as compliance with relevant regulations and internal guidelines. The supervision of the accounting procedures goes hand in hand with the monitoring of the ICR.

Within the organization of the Company, there are various departments and employees involved in developing, coordinating and monitoring control measures. The risk management function and controlling as well as quality departments are of major importance here. Due to its small size, the Company has not yet established an internal audit function.

The adequacy and the effectiveness of the ICR are continuously ensured by discussions with relevant employees, by benchmarking with other organizations and also by way of a regular dialog with the Company's auditor and consultations with the Company's lawyers as required. Regular employee training and internal team meetings ensure that legislative changes are anticipated in good time and implemented in conformity with the rules and regulations.

The Epigenomics Group has established the principle of separation of functions as far as reasonable in a commercial organization with a limited number of employees. This principle is supplemented by the principle of dual control. Neither Executive Board members nor any employees are authorized to represent and sign on behalf of the Company on their own.

For routine internal activities, instructions and regulations are provided where possible. Those instructions and regulations can be found within so-called "standard operating procedures" (SOPs) as well as in guidelines such as an employee's manual, detailed job descriptions, a travel policy or an accounting manual. The guidelines have been made permanently accessible to all concerned employees of the Company via the intranet. All guidelines are checked continuously and amended if necessary. Legal advice from experts is taken as needed to ensure conformity of the internal regulations with the applicable legal requirements or regulations.

The Company's management and controlling system is primarily based on various planning, monitoring and reporting tools. Qualitative information is derived from an internally-developed project documentation database, and quantitative information is processed by all Group entities using Microsoft Dynamics Navision™, a widely used enterprise resource planning (ERP) software program. Our accounting and controlling departments provide all relevant management and controlling information to the Executive Board on a monthly basis. The ongoing training of the team members is ensured.

For internal management and control purposes, we set up an annual budget, usually based on the current long-term strategic business plan of the Company and a corresponding set of goals. The budget is developed bottom-up from all cost centers and R&D projects. All budgets are extensively reviewed internally by the senior management team and the Executive Board, and a final approval of the annual budget by our Supervisory Board is mandatory. The primary focus of our regular internal management reporting lies in comparing actual versus budgeted values for a comprehensive set of metrics. From these, we compile the external quarterly reports. These are usually accompanied by an internal forecast, which provides us with an updated estimate of expected full-year results and performance vis-à-vis target numbers and public guidance. Actual versus budget comparisons of financial performance indicators are also prepared on a regular basis within the framework of the internal reporting system and are reported monthly to the senior management team of the Company. The focus is on cost and liquidity control. Deviations versus budget or historical values are analyzed on a short-term basis and supplemented by a presentation of alternative options. The reporting is supplemented as needed with additional data requested by the Supervisory Board or the Executive Board as well as the controlling team.

The Company's assets are tested for impairment on a regular basis in accordance with the appropriate accounting standards or if there are indications of possible impairment.

## REMUNERATION REPORT

### Composition and remuneration of the Executive Board

The Executive Board of Epigenomics AG is responsible for independently managing and running operations, developing and implementing corporate strategy and budgetary planning, appointing and guiding senior management and overseeing the general management of the Company. There is a continuous and intensive dialog between the Executive Board and the Supervisory Board and their respective members. In its charter, the Executive Board has been given a clear set of rules and procedures for certain actions and decisions that require Supervisory Board approval.

Mr. Greg Hamilton has served as the Company's Chief Executive Officer (CEO) since July 1, 2016. The current service agreement with Mr. Hamilton has a term until December 31, 2021. During the reporting year, the Executive Board also included Dr. Jorge Garces, PhD, who joined the Company on December 1, 2017 as its President and Chief Scientific Officer (CSO). The service agreement with Dr. Garces has a term until December 31, 2020. Mr. Albert Weber joined the Company's Executive Board on January 1, 2018 as Executive Vice President Finance (EVP Finance). Dr. Uwe Staub was also a member of the Executive Board and Chief Operating Officer until stepping down on March 31, 2018.

The total remuneration of the members of the Company's Executive Board is reviewed by the Supervisory Board annually and is compared against national and international benchmarks. Remuneration takes into account the economic and financial situation of the Company as well as size and complexity of international operations and responsibilities. The remuneration package comprises both a fixed component and variable components. The variable components are determined on the basis of a variety of criteria, which are set by the Supervisory Board on a yearly basis, e.g., the achievement of individual performance targets and/or Company performance targets. In addition, Mr. Hamilton and Dr. Garces are entitled to reimbursement of their travel expenses from their permanent addresses in San Diego to the Company's headquarters in Berlin and the related accommodation costs there. Their package of fringe benefits includes an annual car allowance, a 50% matching contribution of the Company in a 401k plan in the U.S.A., various insurance policies and reimbursement for legal and tax advice expenses and the communications costs associated with them working from their country of residence. The Company pays Mr. Weber contributions towards the cost of his health insurance, nursing care insurance and accident insurance as a fringe benefit.

Apart from the fixed and variable components, a third remuneration component comprises a long-term performance-based compensation in the form of stock option rights. Such rights are currently granted under the Company's stock option programs (SOPs), which are described in detail in the notes to the consolidated financial statements for the reporting year.

The total position of all members of the Executive Board with regard to their stock option rights is shown in the following table:

| Executive Board member | Program | Reporting year | Options outstanding as of Jan 1 | Issued | Options outstanding as of Dec 31 | Average exercise pricein EUR |
|---|---|---|---|---|---|---|
| **Greg Hamilton** | **SOP 16–18** | **2019** | **227,500** | **0** | **227,500** | **4.94** |
| | | 2018 | 160,000 | 67,500 | 227,500 | 4.94 |
| | **SOP 17–19** | **2019** | **64,080** | **100,000** | **164,080** | **2.97** |
| | | 2018 | 31,580 | 32,500 | 64,080 | 4.60 |
| | **Total SOP** | **2019** | **291,580** | **100,000** | **391,580** | **4.11** |
| | | 2018 | 191,580 | 100,000 | 291,580 | 4.87 |
| **Jorge Garces, Ph.D.** | **SOP 17–19** | **2019** | **85,000** | **85,000** | **170,000** | **3.02** |
| | | 2018 | 0 | 85,000 | 85,000 | 4.12 |
| **Albert Weber** | **SOP 16–18** | **2019** | **30,000** | **0** | **30,000** | **5.10** |
| | | 2018 | 30,000 | 0 | 30,000 | 5.10 |
| | **SOP 17–19** | **2019** | **70,000** | **70,000** | **140,000** | **3.02** |
| | | 2018 | 0 | 70,000 | 70,000 | 4.12 |
| | **Total SOP** | **2019** | **100,000** | **70,000** | **170,000** | **3.39** |
| | | 2018 | 30,000 | 70,000 | 100,000 | 4.41 |
| **Dr. Uwe Staub** | **SOP 16–18** | **2019** | **22,500** | **0** | **n/a** | **n/a** |
| | | 2018 | 22,500 | 0 | 22,500 | 5.43 |

None of the Executive Board members' stock option rights expired in the reporting year and none were forfeited or exercised. Moreover, none of the rights that they held on the reporting date were eligible to be exercised.

The exercise prices of the rights held by Mr. Hamilton and Mr. Weber range from EUR 1.92 to EUR 5.43. The exercise prices of the rights held by Mr. Garces range from EUR 1.92 to EUR 4.12.

From 2013 until 2015, Dr. Staub and Mr. Weber received the long-term performance-based compensation in the form of phantom stock rights (PSRs). No other PSRs have been issued since 2016. From the beginning of 2018 until his contract was terminated on March 31, 2018, Mr. Staub was granted 116,800 PSRs under various programs. Of these, 22,400 expired in the first quarter of 2018 and he exercised 60,000 further rights that same year. The total position of Mr. Weber with regard to his PSRs is shown in the following table:

| Executive Board member | Program | Reporting year | Rights held as of Jan 1 | Rights expired | Rights owned as of Dec 31 | thereof vested | Exercise price (weighted avg.) in EUR |
|---|---|---|---|---|---|---|---|
| **Albert Weber** | **PSP 03–15** | **2019** | **0** | **0** | **0** | **0** | **n/a** |
| | | 2018 | 2,400 | 2,400 | 0 | 0 | n/a |
| | **PSP 2014** | **2019** | **30,000** | **30,000** | **0** | **0** | **n/a** |
| | | 2018 | 30,000 | 0 | 30,000 | 30,000 | 3.23 |
| | **PSP 2015** | **2019** | **10,000** | **0** | **10,000** | **10,000** | **5.05** |
| | | 2018 | 10,000 | 0 | 10,000 | 10,000 | 5.05 |
| | **Total PSR** | **2019** | **40,000** | **30,000** | **10,000** | **10,000** | **5.05** |
| | | 2018 | 42,400 | 2,400 | 40,000 | 40,000 | 3.69 |

Mr. Weber did not exercise PSRs in the reporting period or in the prior year. The exercise price of the PSRs held by him is EUR 5.05.

In addition to the aforementioned remuneration components, the Executive Board members are beneficiaries of a D&O insurance policy with excess according to the statutory minimum amount, and receive full reimbursement of their business travel expenses from the Company in accordance with its general travel policy. In the individual case of a temporary incapacity to work due to illness, the Executive Board members will continue to receive their fixed salary for a maximum term of twelve months or up to the termination of their service agreement, respectively. In such case, any payments received under insurance policies as sickness benefit will be deducted from the fixed salary.

The service agreements of all Executive Board members contain post-contractual non-compete provisions for a period of twelve months after the respective service agreements end. During such period, at the decision of the Supervisory Board, Executive Board members are entitled to 100% of their last fixed compensation as a non-competition payment. The Supervisory Board may at any time, however, revoke the non-compete covenant (including after the respective agreement has ended). In the event of a change of control pursuant to the provisions of the German Securities Acquisition and Takeover Act (Wertpapiererwerbs- und Übernahmegesetz – WpÜG), the members of the Executive Board have a special right to terminate their service agreements, and would in such case be entitled to receive payment of their fixed remuneration for the remaining term of their respective service agreements. However, in no case would such payment exceed 150% of the severance payment cap in accordance with section 4.2.3 of the German Corporate Governance Code.

Total individual remuneration of the Company's Executive Board members[1]:

| **Benefits granted** | **Greg Hamilton, CEO, since July 1, 2016** | | | |
|---|---|---|---|---|
| in EUR | **2018** | **2019** | **2019 (min)** | **2019 (max)** |
| Fixed compensation | 349,345 | 384,547 | 384,547 | 384,547 |
| Fringe benefits | 167,454 | 192,448 | 192,448 | 192,448 |
| **Total** | **516,799** | **576,995** | **576,995** | **576,995** |
| One-year variable compensation | 296,070 | 230,728 | 0 | 384,547 |
| Multi-year variable compensation | 149,384 | 69,877 | n/a | n/a |
| share-based compensation | 149,384 | 69,877 | n/a | n/a |
| – PSP 03–15 | 0 | 0 | n/a | n/a |
| – PSP 2013 | 0 | 0 | n/a | n/a |
| – PSP 2014 | 0 | 0 | n/a | n/a |
| – PSP 2015 | 0 | 0 | n/a | n/a |
| – SOP 16–18 | 100,834 | 0 | n/a | n/a |
| – SOP 17–19 | 48,550 | 69,877 | n/a | n/a |
| non-share-based compensation | 0 | 0 | 0 | 0 |
| **Total** | **962,253** | **877,600** | **576,995** | **961,541** |
| Service cost | 0 | 0 | 0 | 0 |
| **Total** | **962,253** | **877,600** | **576,995** | **961,541** |

| **Benefits granted** | **Jorge Garces, Ph.D., CSO, since Dec 1, 2017** | | | |
|---|---|---|---|---|
| in EUR | **2018** | **2019** | **2019 (min)** | **2019 (max)** |
| Fixed compensation | 331,878 | 338,259 | 338,259 | 338,259 |
| Fringe benefits | 155,164 | 181,506 | 181,506 | 181,506 |
| **Total** | **487,042** | **519,765** | **519,765** | **519,765** |
| One-year variable compensation | 248,079 | 156,801 | 0 | 219,868 |
| Multi-year variable compensation | 199,521 | 149,071 | n/a | n/a |
| share-based compensation | 119,474 | 69,024 | n/a | n/a |
| – PSP 03–15 | 0 | 0 | n/a | n/a |
| – PSP 2013 | 0 | 0 | n/a | n/a |
| – PSP 2014 | 0 | 0 | n/a | n/a |
| – PSP 2015 | 0 | 0 | n/a | n/a |
| – SOP 16–18 | 0 | 0 | n/a | n/a |
| – SOP 17–19 | 119,474 | 69,024 | n/a | n/a |
| non-share-based compensation | 80,047 | 80,047 | 0 | 80,047 |
| **Total** | **934,641** | **825,637** | **519,765** | **819,680** |
| Service cost | 0 | 0 | 0 | 0 |
| **Total** | **934,641** | **825,637** | **519,765** | **819,680** |

[1]The value of the share-based compensation in the table is measured by the fair value of the issued rights at their grant dates. Granted PSRs cannot be exercised before the end of a waiting period of three years after their issuance.

| **Benefits granted** | **Albert Weber, EVP Finance, since Jan 1, 2018** | | | |
|---|---|---|---|---|
| in EUR | **2018** | **2019** | **2019 (min)** | **2019 (max)** |
| Fixed compensation | 200,000 | 200,000 | 200,000 | 200,000 |
| Fringe benefits | 4,072 | 5,355 | 5,355 | 5,355 |
| **Total** | **204,072** | **205,355** | **205,355** | **205,355** |
| One-year variable compensation | 120,000 | 72,000 | 0 | 120,000 |
| Multi-year variable compensation | 97,933 | 50,529 | n/a | n/a |
| share-based compensation | 97,933 | 50,529 | n/a | n/a |
| – PSP 03-15 | 0 | 0 | n/a | n/a |
| – PSP 2013 | 0 | 0 | n/a | n/a |
| – PSP 2014 | 0 | 0 | n/a | n/a |
| – PSP 2015 | 0 | 0 | n/a | n/a |
| – SOP 16-18 | 0 | 0 | n/a | n/a |
| – SOP 17-19 | 97,933 | 50,529 | n/a | n/a |
| non-share-based compensation | 0 | 0 | 0 | 0 |
| **Total** | **422,005** | **327,884** | **205,355** | **325,355** |
| Service cost | 0 | 0 | 0 | 0 |
| **Total** | **422,005** | **327,884** | **205,355** | **325,355** |

| **Benefits granted** | **Dr. Uwe Staub, COO, April 1, 2013–March 31, 2018** | | | |
|---|---|---|---|---|
| in EUR | **2018** | **2019** | **2019 (min)** | **2019 (max)** |
| Fixed compensation | 57,500 | 0 | 0 | 0 |
| Fringe benefits | 0 | 0 | 0 | 0 |
| **Total** | **57,500** | **0** | **0** | **0** |
| One-year variable compensation | 0 | 0 | 0 | 0 |
| Multi-year variable compensation | 0 | 0 | n/a | n/a |
| share-based compensation | 0 | 0 | n/a | n/a |
| – PSP 03-15 | 0 | 0 | n/a | n/a |
| – PSP 2013 | 0 | 0 | n/a | n/a |
| – PSP 2014 | 0 | 0 | n/a | n/a |
| – PSP 2015 | 0 | 0 | n/a | n/a |
| – SOP 16-18 | 0 | 0 | n/a | n/a |
| – SOP 17-19 | 0 | 0 | n/a | n/a |
| non-share-based compensation | 0 | 0 | 0 | 0 |
| **Total** | **57,500** | **0** | **0** | **0** |
| Service cost | 0 | 0 | 0 | 0 |
| **Total** | **57,500** | **0** | **0** | **0** |

| Allocations | Greg Hamilton,CEO since July 1, 2016 | | Jorge Garces, Ph.D., CSO since Dec 1, 2017 | |
|---|---|---|---|---|
| in EUR | 2018 | 2019 | 2018 | 2019 |
| Fixed compensation | 349,345 | 384,547 | 331,878 | 338,259 |
| Fringe benefits | 167,454 | 192,448 | 155,164 | 181,506 |
| **Total** | **516,799** | **576,995** | **487,042** | **519,765** |
| One-year variable compensation | 228,646 | 296,070 | 174,672 | 248,079 |
| Multi-year variable compensation | 0 | 0 | 0 | 0 |
| share-based compensation | 0 | 0 | 0 | 0 |
| – PSP 03–15 | 0 | 0 | 0 | 0 |
| – PSP 2013 | 0 | 0 | 0 | 0 |
| – PSP 2014 | 0 | 0 | 0 | 0 |
| – PSP 2015 | 0 | 0 | 0 | 0 |
| – SOP 16–18 | 0 | 0 | 0 | 0 |
| – SOP 17–19 | 0 | 0 | 0 | 0 |
| non-share-based compensation | 0 | 0 | 0 | 0 |
| **Total** | **745,445** | **873,064** | **661,714** | **767,844** |
| Service cost | 0 | 0 | 0 | 0 |
| **Total** | **745,445** | **873,064** | **661,714** | **767,844** |

| Allocations | Albert Weber, EVP Finance, since Jan 1, 2018 | | Dr. Uwe Staub, COO, April 1, 2013–March 31, 2018 | |
|---|---|---|---|---|
| in EUR | 2018 | 2019 | 2018 | 2019 |
| Fixed compensation | 200,000 | 200,000 | 57,500 | 0 |
| Fringe benefits | 4,072 | 5,355 | 0 | 0 |
| **Total** | **204,072** | **205,355** | **57,500** | **0** |
| One-year variable compensation | 0 | 120,000 | 64,000 | 0 |
| Multi-year variable compensation | 0 | 0 | 0 | 0 |
| share-based compensation | 0 | 0 | 0 | 0 |
| – PSP 03–15 | 0 | 0 | 0 | 0 |
| – PSP 2013 | 0 | 0 | 0 | 0 |
| – PSP 2014 | 0 | 0 | 0 | 0 |
| – PSP 2015 | 0 | 0 | 0 | 0 |
| – SOP 16–18 | 0 | 0 | 0 | 0 |
| – SOP 17–19 | 0 | 0 | 0 | 0 |
| non-share-based compensation | 0 | 0 | 0 | 0 |
| **Total** | **204,072** | **325,355** | **121,500** | **0** |
| Service cost | 0 | 0 | 0 | 0 |
| **Total** | **204,072** | **325,355** | **121,500** | **0** |

Shares of the Company held by members of the Executive Board:

| | | Number of shares | | |
|---|---|---|---|---|
| Executive Board member | Reporting year | held as of Jan 1 | purchased | held as of Dec 31 |
| **Greg Hamilton** | **2019** | **2,500** | **18,750** | **21,250** |
| | 2018 | 0 | 2,500 | 2,500 |
| **Jorge Garces, Ph.D.** | **2019** | **1,000** | **0** | **1,000** |
| | 2018 | 0 | 1,000 | 1,000 |
| **Albert Weber** | **2019** | **100** | **0** | **100** |
| | 2018 | 100 | 0 | 100 |
| **Dr. Uwe Staub (until March 31, 2018)** | **2019** | **n/a** | **n/a** | **n/a** |
| | 2018 | 30,000 | n/a | n/a |
| **Executive Board total** | **2019** | **3,600** | **18,750** | **22,350** |
| | 2018 | 30,100 | 3,500 | 3,600 |

## Composition and remuneration of the Supervisory Board

The Supervisory Board of Epigenomics AG consists of five members with broad experience in the pharmaceutical, diagnostics or financial industries. All members are currently appointed until the Company's General Shareholders' Meeting in 2021.

- **Heino von Prondzynski** – Einsiedeln (CH) – Chairman (since May 2, 2012)
  *Independent consultant and former member of the group management of F. Hoffmann-La Roche Ltd. (CEO of the Division Roche Diagnostics at F. Hoffmann-La Roche Ltd., Basel, CH)*

  Supervisory Board member from May 2007 until March 2010 and since May 2012

  Heino von Prondzynski is not a member of other mandatory supervisory boards. He is/was a member of comparable boards with supervisory function of the following foreign undertakings:
  – Koninklijke Philips Electronics N.V. (Royal Philips Electronics) (until May 2019), Eindhoven, Netherlands;
  – Quotient Ltd., Jersey, UK, – Chairman.

- **Dr. Ann Clare Kessler** – Rancho Santa Fe, CA (USA) – Vice-Chairwoman (since May 2, 2012)
  *Independent consultant and former Head of Global Project Management at F. Hoffmann-La Roche Ltd. (Basel, CH) and former Head of the Division of Exploratory Research at Hoffmann-La Roche Inc. (U.S.A.)*

  Supervisory Board member since June 2005

  Dr. Ann Clare Kessler is not a member of other mandatory supervisory boards or comparable boards with supervisory function.

- **Prof. Dr. Günther Reiter** – Pfullingen (GER) – Vice-Chairman (since November 5, 2014)
  *Professor at the ESB Business School in Reutlingen (GER)*

  Supervisory Board member since June 2005; Chairman of the Audit Committee

  Prof. Dr. Reiter is not a member of other mandatory supervisory boards or comparable boards with supervisory function.

- **Dr. Helge Lubenow** – Langenfeld (Rhineland) (GER)
  *Independent Management Consultant and former Head of the Molecular Diagnostic Business Area at Qiagen (GER)*

  Supervisory Board member since May 2016; Member of the Audit Committee

  Dr. Lubenow is a member of comparable boards with supervisory function of the following German and foreign undertakings:
  – ProteoMediX AG, Zürich, Switzerland
  – Indical TopCo AB, Sweden
  – tesa Labtec GmbH, Hamburg, Germany

- **Franz Walt** – Flims Dorf (CH)
  *CEO of Quotient Ltd., Eysins, Switzerland*

  Supervisory Board member since May 2019; Member of the Audit Committee

  Franz Walt is not a member of other mandatory supervisory boards or comparable boards with supervisory function.

The remuneration structure for the Supervisory Board is based on an annual cash retainer ("fixed remuneration") and meeting-related payments ("variable remuneration"). The remuneration does not include any performance-related elements or long-term incentive components.

Remuneration of the members of the Supervisory Board:

| Member of the Supervisory Board | Reporting year | Fixed remuneration | Variable remuneration | Total remuneration |
|---|---|---|---|---|
| **Heino von Prondzynski** | **2019** | **90,000** | **12,000** | **102,000** |
| | 2018 | 90,000 | 12,000 | 102,000 |
| **Dr. Ann C. Kessler** | **2019** | **40,000** | **12,000** | **52,000** |
| | 2018 | 40,000 | 12,000 | 52,000 |
| **Prof. Dr. Günther Reiter** | **2019** | **40,000** | **12,000** | **52,000** |
| | 2018 | 40,000 | 12,000 | 52,000 |
| **Dr. Helge Lubenow** | **2019** | **35,000** | **12,000** | **47,000** |
| | 2018 | 35,000 | 12,000 | 47,000 |
| **Franz Walt** | **2019** | **20,417** | **8,000** | **28,417** |
| | 2018 | n/a | n/a | n/a |
| **Supervisory Board total** | **2019** | **225,417** | **56,000** | **281,417** |
| | 2018 | 205,000 | 48,000 | 253,000 |

In addition, the members of the Supervisory Board were reimbursed for expenses totaling EUR 36 thousand in 2019 (2018: EUR 35 thousand).

Shares of the Company held by members of the Supervisory Board:

| | | Number of shares | | |
|---|---|---|---|---|
| Supervisory Board member | Reporting year | held as of Jan 1 | purchased | held as of Dec 31 |
| **Heino von Prondzynski** | **2019** | **245,000** | **240,000** | **485,000** |
| | 2018 | 140,000 | 105,000 | 245,000 |
| **Dr. Ann C. Kessler** | **2019** | **63,000** | **74,604** | **137,604** |
| | 2018 | 24,650 | 38,350 | 63,000 |
| **Prof. Dr. Günther Reiter** | **2019** | **0** | **0** | **0** |
| | 2018 | 0 | 0 | 0 |
| **Dr. Helge Lubenow** | **2019** | **6,000** | **11,550** | **17,550** |
| | 2018 | 6,000 | 0 | 6,000 |
| **Franz Walt** | **2019** | **n/a** | **19,500** | **19,500** |
| | 2018 | n/a | n/a | n/a |
| **Supervisory Board total** | **2019** | **314,000** | **345,654** | **659,654** |
| | 2018 | 170,650 | 143,350 | 314,000 |

The members of the Supervisory Board did not sell any shares of the Company in the reporting period or in the previous year.

## FINANCIAL REPORTING

In line with fair and open disclosure and the requirements of the Prime Standard segment of the Frankfurt Stock Exchange, quarterly interim statements and half-year financial reports are made available within two months after quarter-/half-year-end and annual financial statements within four months after year-end. All information is made available simultaneously on our website www.epigenomics.com. All material news is announced following the latest guidelines and legal requirements on ad hoc notification.

# ADDITIONAL MANDATORY DISCLOSURES FOR LISTED COMPANIES IN ACCORDANCE WITH SECTION 315E OF THE GERMAN COMMERCIAL CODE (HGB)

In accordance with section 315e of the German Commercial Code (Handelsgesetzbuch – HGB), the Company is required to report on certain structures governed by the German Stock Corporation Act (Aktiengesetz – AktG) and other legal frameworks, in order to provide a better overview of the Company and disclose any impediments to a takeover.

## SHAREHOLDERS WITH DIRECT OR INDIRECT SHAREHOLDINGS OF MORE THAN 10% OF THE VOTING RIGHTS

Based on the information available, Deutsche Balaton AG, Heidelberg held 16.22% of the voting rights in Epigenomics AG as of the balance sheet date. Moreover, there were no additional shareholders with direct or indirect shareholdings of more than 10% of the voting rights.

## COMPOSITION OF SHARE CAPITAL, VOTING RIGHTS, AND VOTING RIGHT RESTRICTIONS

As of December 31, 2019, the share capital of Epigenomics AG consisted exclusively of registered shares with equal rights with a par value of EUR 1.00 each. The total number of outstanding shares as of that date was 43,527,692.

The Company's Articles of Association do not restrict voting rights or the transfer of shares. The Executive Board is not aware of any restrictions on voting rights or the transferability of shares that may result from agreements between shareholders.

Statutory restrictions on voting rights may result, for example, from Sections 71b, 134 (2) AktG, Section 44 of the German Securities Trading Act (WpHG), Section 59 of the German Securities Acquisition and Takeover Act (WpÜG). The Executive Board is not aware of any restrictions on voting rights based on these provisions. Furthermore, pursuant to section 136 (1) AktG, members of the Executive Board and the Supervisory Board may not exercise any voting rights if a resolution is passed on their discharge, their release from a liability or the assertion of claims by the Company against them. Under section 136 AktG, shareholders are not entitled to vote in certain circumstances. We are not aware of any contractual restrictions related to voting rights or the transfer of shares.

## LEGISLATION AND PROVISIONS OF THE ARTICLES OF ASSOCIATION GOVERNING THE APPOINTMENT AND DISMISSAL OF MEMBERS OF THE EXECUTIVE BOARD AND AMENDMENTS TO THE ARTICLES OF ASSOCIATION

The appointment and dismissal of members of the Executive Board is subject to the provisions of sections 84 and 85 AktG.

The Supervisory Board shall appoint members of the Executive Board for a maximum period of five years. It is permissible to appoint members to the Executive Board on more than one occasion or to extend their period of office, on each occasion for a maximum of five years.

The Executive Board may consist of one or more persons. The number of members of the Executive Board shall be determined by the Supervisory Board in accordance with the statutory provisions. The Supervisory Board may appoint a member of the Executive Board as its chairperson ("CEO") and one or more members of the Executive Board as his/her deputy/deputies. Deputy members of the Executive Board may be appointed. The statutory provisions regarding the amendment of the Articles of Association are governed in sections 179 to 181 AktG.

Pursuant to Article 14 of the Articles of Association, the Supervisory Board may adopt amendments or supplements to the Articles of Association if the changes are merely editorial in nature.

## MATERIAL AGREEMENTS OF THE COMPANY SUBJECT TO THE CONDITION OF A CHANGE OF CONTROL FOLLOWING A TAKEOVER BID

(Such disclosure may be omitted if it could materially adversely affect the Company).

Apart from the service agreements of the Executive Board members (see section "Composition and remuneration of the Executive Board" of this Group management report), the Company's phantom stock programs and the related agreements with the beneficiaries of these programs are also subject to any change of control. In the event of a takeover or a mandatory offer for the shares of the Company in accordance with the WpÜG, the holders of vested PSRs become entitled to exercise these rights in full. This shall also apply if the waiting period for these rights has not expired yet. The PSR holder's right of exercise only applies, however, if the offered consideration exclusively comprises a cash settlement and if the bidder has gained control over the Company, i.e., has acquired at least 30% of the voting rights of the Company (section 29 (2) and section 30 WpÜG).

## AUTHORIZATION OF THE EXECUTIVE BOARD TO ISSUE AND TO REPURCHASE SHARES

There is no authorization of the Executive Board to repurchase and use own shares.

By a resolution of the Annual General Shareholders' Meeting of the Company dated May 15, 2019, Authorized Capital 2019/I and Authorized Capital 2019/II were newly created.

### Authorized Capital 2019/I

The Executive Board is authorized until May 14, 2024 to increase with the consent of the Supervisory Board the share capital of the Company once or several times by up to a total of EUR 3,602,154.00 against contribution in cash and/or in kind by issuing new non-par value registered shares (Authorized Capital 2019/I). The subscription rights shall be granted to the shareholders. The new shares can also be subscribed by one or more credit institutions or companies acting according to Section 53 Paragraph 1 Sentence 1 or Section 53b Paragraph 1 Sentence 1 or Paragraph 7 of the German Banking Act (KWG) under the obligation to offer the shares to the shareholders for subscription (indirect subscription right). The Executive Board is, however, authorized to exclude, with the consent of the Supervisory Board, the shareholders' statutory subscription rights in the following events:

- for fractional amounts;
- if the new shares are issued according to Section 186 Paragraph 3 Sentence 4 AktG against contribution in cash at an issue price which is not significantly below the stock exchange price of the shares already listed, and the pro rata notional portion of the share capital represented by the new shares does not exceed ten per cent (10 %) of the share capital at the time this authorization is registered with the commercial register, or, if lower, at the respective time when the authorization is exercised. Other shares which have been newly issued by the Company by way of a capital increase against contribution in cash during the term of this authorization pursuant to Section 186 Paragraph 3 Sentence 4 AktG or Section 203 in connection with Section 186 Paragraph 3 Sentence 4 AktG, or which have been sold following a repurchase, in each case under exclusion of subscription rights, shall be counted towards the 10 % limitation. Furthermore, shares for which there is an option or conversion right or obligation, or a share delivery right in favor of the Company, based on bonds with warrants or convertible bonds or participation rights that have been issued during the term of this authorization under exclusion of subscription rights pursuant to Section 221 Paragraph 4 Sentence 2 in conjunction with Section 186 Paragraph 3 Sentence 4 AktG by the Company or a Group company of the Company within the meaning of Section 18 AktG, in which the Company has a direct and/or indirect holding of at least 90 %, shall be counted towards the 10 % limitation;
- to the extent necessary to grant subscription rights for new shares to holders or creditors of option rights or creditors of convertible bonds or participation rights issued by the Company or a Group company of the Company within the meaning of Section 18 AktG, in which the Company has a direct and/or indirect holding of at least 90 %, in the amount in which they would be entitled thereto upon the exercise of the option or conversion rights or the exercise of share delivery rights, or fulfillment of option or conversion obligations.

The Executive Board is further authorized to determine, with the consent of the Supervisory Board, the dividend rights of the new shares in deviation from Section 60 Paragraph 2 AktG as well as the further details of the implementation of capital increases from Authorized Capital 2019/I. The Supervisory Board is authorized to amend the wording of the Articles of Association, as appropriate, after implementation of a share capital increase from Authorized Capital 2019/I in accordance with the respective share capital increase or after expiry of the term of the authorization.

### Authorized Capital 2019/II

The Executive Board is authorized until May 14, 2024 to increase with the consent of the Supervisory Board the share capital of the Company once or several times by up to a total of EUR 14,408,616.00 against contribution in cash by issuing new non-par value registered shares (Authorized Capital 2019/II). The subscription rights shall be granted to the shareholders. The Company shall organize a stock exchange trading of the subscription rights. The new shares can also be subscribed by one or more credit institutions or companies acting according to Section 53 Paragraph 1 Sentence 1 or Section 53b Paragraph 1 Sentence 1 or Paragraph 7 of the German Banking Act (KWG) under the obligation to offer the shares to the shareholders for subscription (indirect subscription right). The Executive Board is, however, authorized to exclude, with the consent of the Supervisory Board, the shareholders' statutory subscription rights for fractional amounts. The Executive Board is further authorized to determine, with the consent of the Supervisory Board, the dividend rights of the new shares in deviation from Section 60 Paragraph 2 AktG as well as the further details of the implementation of capital increases from Authorized Capital 2019/II. The Supervisory Board is authorized to amend the wording of the Articles of Association, as appropriate, after implementation of a share capital increase from Authorized Capital 2019/II in accordance with the respective share capital increase or after expiry of the term of the authorization.

In the reporting year, 7,506,152 new registered shares were issued from Authorized Capital 2019/II. This means that a further 6,902,464 new shares can be issued on the basis of this capital until May 14, 2024.

The Company also has the following conditional capitals:

### Conditional Capital VII

Conditional Capital VII, which had amounted to EUR 21,065 at the beginning of the year, was fully revoked by the General Shareholders' Meeting on May 15, 2019.

### Conditional Capital IX

The share capital is conditionally increased by up to EUR 521,095.00 by means of issuing up to 521,095 new non-par value registered shares (Conditional Capital IX). The conditional capital increase serves to grant shares to the holders or creditors of bonds or participation rights, such shares being issued by the Company, or a Group company within the meaning of section 18 AktG, in which the Company directly and/or indirectly holds an interest of at least 90%, until May 14, 2024 on the basis of the authorization resolution of the General Shareholders' Meeting dated May 15, 2019 if option or conversion rights are exercised, if option or conversion obligations are performed or if the Company exercises its optional right to deliver shares of the Company instead of payment of the cash amount due (or parts thereof). The new shares are issued at the respective option or conversion price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is only to be implemented if bonds or participation rights are issued in accordance with the authorization resolution of the General Shareholders' Meeting dated May 15, 2019, and only to the extent that

- option or conversion rights are exercised or
- holders or creditors of bonds or participation rights who are under an obligation to exercise an option or under a conversion obligation perform their obligation to exercise the option or their conversion obligation or
- the Company exercises its optional right to deliver shares of the Company instead of paying the cash amount due (or parts thereof)

and to the extent that no cash settlement is granted and no shares from an authorized capital, treasury shares or shares of another listed company are delivered. The new shares issued carry dividend rights from the commencement of the fiscal year in which they are issued. The Executive Board is authorized, as far as legally permissible and with the consent of the Supervisory Board, to determine that, if no resolution on the appropriation of net profit for the fiscal year immediately preceding the year of issue of the new shares has been adopted when the new shares are issued, the new shares shall carry dividend rights from the beginning of the fiscal year immediately preceding the year of issue.

The Executive Board is also authorized, with the consent of the Supervisory Board, to determine the further details concerning the implementation of the conditional capital increase.

### Conditional Capital X

The share capital is conditionally increased by up to EUR 14,468,610.00 by means of issuing up to 14,468,610 new non-par value registered shares (Conditional Capital X). The conditional capital increase serves to grant shares to the holders or creditors of bonds or participation rights issued by the Company, or a consolidated subsidiary in which the Company directly and/or indirectly holds an interest of at least a 90% and in respect of which the Company has issued a guarantee, until May 14, 2024 on the basis of the authorization resolution of the General Shareholders' Meeting dated May 15, 2019 if option or conversion rights are exercised on bonds or participation rights, if option or conversion obligations are performed or if the Company exercises its optional right to deliver shares of the Company instead of payment of the cash amount due (or parts thereof). The new shares are issued at the respective option or conversion price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is only to be implemented if bonds or participation rights are issued in accordance with the authorization resolution of the General Shareholders' Meeting dated May 15, 2019, and only to the extent that

- option or conversion rights are exercised or
- holders or creditors of bonds or participation rights who are under an obligation to exercise an option or under a conversion obligation perform their obligation to exercise the option or their conversion obligation or
- the Company exercises its optional right to deliver shares of the Company instead of paying the cash amount due (or parts thereof)

and to the extent that no cash settlement is granted and no shares from an authorized capital, treasury shares or shares of another listed company are delivered. The new shares issued carry dividend rights from the commencement of the fiscal year in which they are issued. The Executive Board is authorized, as far as legally permissible and with the consent of the Supervisory Board, to determine that, if no resolution on the appropriation of net profit for the fiscal year immediately preceding the year of issue of the new shares has been adopted when the new shares are issued, the new shares shall carry dividend rights from the beginning of the fiscal year immediately preceding the year of issue.

The Executive Board is also authorized, with the consent of the Supervisory Board, to determine the further details concerning the implementation of the conditional capital increase.

### Conditional Capital XI

The share capital is conditionally increased by up to EUR 1,000,000.00 by means of issuing up to 1,000,000 new non-par value registered shares (Conditional Capital XI). The conditional capital increase serves to grant or issue shares to members of the Executive Board of the Company, to members of the management of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG and to employees of the Company and of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG who exercise the subscription rights they were granted prior to the end of April 30, 2018 pursuant to the authorization resolution of the General Shareholders' Meeting dated May 25, 2016 (Stock Option Program 16–18). The new shares are issued against payment by the beneficiary to the Company of the respective exercise price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is to be implemented only if subscription rights are issued in accordance with the authorization resolution on the Company's Stock Option Program 16–18 by the General Shareholders' Meeting dated May 25, 2016 and only to the extent that the holders of these subscription rights exercise them and the Company does not grant any treasury shares or cash compensation to fulfill these subscription rights.

### Conditional Capital XII

The Company's share capital is conditionally increased by up to EUR 1,000,000.00 by means of issuing up to 1,000,000 new non-par value registered shares (Conditional Capital XII). The conditional capital increase serves to grant or issue shares to members of the Executive Board of the Company, to members of the management of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG and to employees of the Company and of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG who exercise the subscription rights they were granted prior to the end of May 31, 2019 pursuant to the authorization resolution of the General Shareholders' Meeting dated May 30, 2017 (Stock Option Program 17–19). The new shares are issued against payment by the beneficiary to the Company of the respective exercise price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is to be implemented only if subscription rights are issued in accordance with the authorization resolution on the Company's Stock Option Program 17–19 by the General Shareholders' Meeting dated May 30, 2017 and only to the extent that the holders of these subscription rights exercise them and the Company does not grant any treasury shares or cash compensation to fulfill these subscription rights.

### Conditional Capital XIII

The share capital is conditionally increased by up to EUR 1,000,000.00 by means of issuing up to 1,000,000 new non-par value registered shares (Conditional Capital XIII). The conditional capital increase serves to grant or issue shares to members of the Executive Board of the Company, to members of the management of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG and to employees of the Company and of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG who exercise the subscription rights they were granted prior to the end of May 31, 2021 pursuant to the authorization resolution of the General Shareholders' Meeting dated May 15, 2019 (Stock Option Program 19–21). The new shares are issued against payment by the beneficiary to the Company of the respective exercise price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is to be implemented only if subscription rights are issued in accordance with the authorization resolution on the Company's Stock Option Program 19–21 by the General Shareholders' Meeting dated May 15, 2019 and only to the extent that the holders of these subscription rights exercise them and the Company does not grant any treasury shares or cash compensation to fulfill these subscription rights.

The Supervisory Board is also authorized to determine the further details concerning the implementation of the conditional capital increase where the granting of subscription rights to members of the Executive Board is concerned. In all other cases, the Executive Board is authorized to determine such details.

Berlin, March 31, 2020

The Executive Board

# KEY FIGURES

*– in accordance with the consolidated financial statements –*

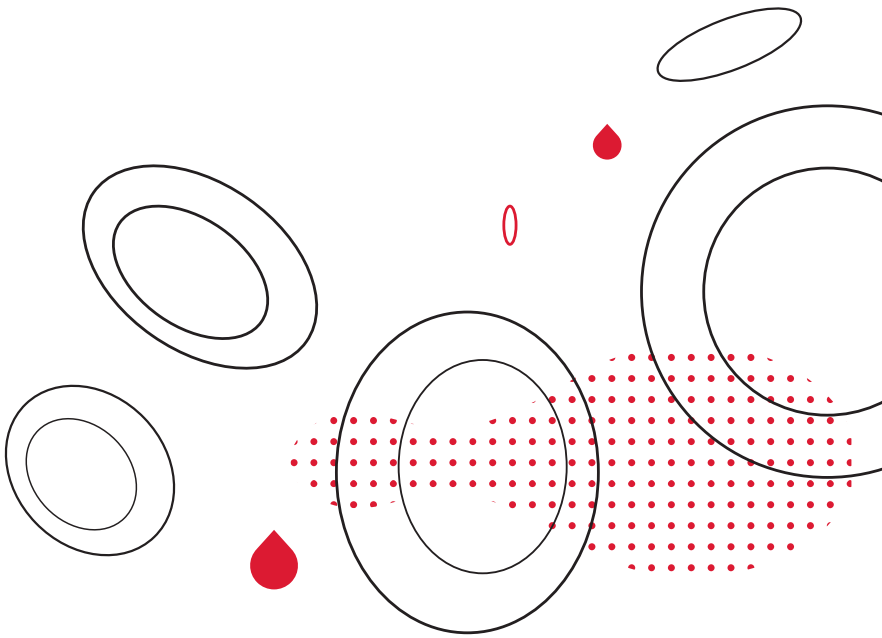
| EUR thousand (unless indicated otherwise) | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| **Statement of Profit or Loss** | | | | | |
| Revenue | 2,082 | 4,201 | 1,864 | 1,533 | 1,125 |
| Gross profit | 907 | 2,567 | 1,618 | 1,093 | 872 |
| EBIT | -9,264 | -12,312 | -10,289 | -12,895 | -14,673 |
| EBITDA | -8,596 | -11,956 | -9,946 | -12,587 | -14,160 |
| EBITDA before share-based payment expenses | -9,352 | -9,670 | -9,369 | -11,436 | -13,287 |
| Net loss for the period | -8,985 | -11,161 | -10,235 | -12,692 | -17,020 |
| **Balance Sheet** | | | | | |
| Non-current assets | 1,822 | 3,019 | 2,914 | 3,553 | 1,866 |
| Investments in non-current assets | 200 | 379 | 548 | 106 | 122 |
| Current assets | 10,776 | 15,203 | 16,859 | 18,274 | 12,123 |
| Non-current liabilities | 217 | 89 | 43 | 47 | 741 |
| Current liabilities | 5,283 | 3,709 | 9,153 | 3,167 | 3,619 |
| Equity | 7,098 | 14,424 | 10,577 | 18,613 | 9,629 |
| Equity ratio (in %) | 56.3 | 79.2 | 53.5 | 85.3 | 68.8 |
| Total assets | 12,598 | 18,222 | 19,773 | 21,827 | 13,989 |
| **Statement of Cash Flows** | | | | | |
| Cash flow from operating activities | -8,127 | -13,283 | -9,576 | -10,351 | -13,506 |
| Cash flow from investing activities | 159 | -379 | -548 | 724 | 47 |
| Cash flow from financing activities | 9,032 | 17,422 | 11,499 | 13,274 | 7,120 |
| Net cash flow | 1,064 | 3,760 | 1,375 | 3,647 | -6,339 |
| Cash consumption | -7,968 | -13,662 | -10,124 | -9,627 | -13,459 |
| Cash and cash equivalents at the end of the year | 7,779 | 11,531 | 12,826 | 16,487 | 10,155 |
| **Stock** | | | | | |
| Weighted average number of shares issued | 17,117,101 | 20,271,817 | 23,161,627 | 27,016,155 | 37,272,565 |
| Earnings per share (basic and diluted, in EUR) | -0.52 | -0.55 | -0.44 | -0.47 | -0.46 |
| Share price as of the balance sheet date (in EUR) | 2.22 | 4.55 | 4.25 | 1.77 | 1.37 |
| **Number of employees as of the reporting date** | 38 | 45 | 46 | 44 | 41 |

# CONSOLIDATED FINANCIAL STATEMENTS 2019

*– in accordance with International Financial Reporting Standards (IFRSs) –*

CONTENTS





# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME)

FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31

| EUR thousand | Note | 2018 | 2019 |
|---|---|---|---|
| Revenue | 1 | 1,533 | 1,125 |
| Cost of sales | 3 | -440 | -253 |
| **Gross profit** | | **1,093** | **872** |
| *Gross margin (in %)* | | *71.3* | *77.5* |
| Other income | 2 | 1,441 | 2,488 |
| Research and development costs | 3 | -6,418 | -7,340 |
| Selling, general and administrative costs | 3 | -8,703 | -8,935 |
| Other expenses | 3; 6 | -308 | -1,758 |
| **Operating result/earnings before interest and taxes (EBIT)** | 7 | **-12,895** | **-14,673** |
| Interest income | 8 | *17* | *172* |
| Interest expenses | 8 | -550 | -63 |
| Other financial result | 8 | -2 | -2 |
| **Net loss for the year before taxes on income** | | **-13,430** | **-14,566** |
| Taxes on income | 9 | 738 | -2,454 |
| **Net loss for the year** | | **-12,692** | **-17,020** |
| Items that may be reclassified to profit or loss: | | | |
| Exchange differences on translation of foreign operations | 23 | -321 | -147 |
| Changes in fair value of financial instruments measured at fair value through other comprehensive income | 23 | -252 | 228 |
| **Other comprehensive income for the year** | | **-573** | **81** |
| **Total comprehensive income for the year** | | **-13,265** | **-16,939** |
| **Earnings per share (basic and diluted, in EUR)** | 10 | **-0.47** | **-0.46** |

# CONSOLIDATED BALANCE SHEET
AS OF DECEMBER 31

| **ASSETS** EUR thousand | Note | Dec 31 2018 | Dec 31 2019 |
|---|---|---|---|
| **Non-current assets** | | | |
| Intangible assets | 11 | 474 | 333 |
| Property, plant and equipment | 12 | 701 | 1,533 |
| Deferred taxes | 14 | 2,378 | 0 |
| **Total non-current assets** | | **3,553** | **1,866** |
| **Current assets** | | | |
| Inventories | 15 | 364 | 313 |
| Trade receivables | 16 | 164 | 89 |
| Marketable securities | 17 | 653 | 880 |
| Cash and cash equivalents | 18 | 16,487 | 10,155 |
| Other current assets | 19 | 606 | 686 |
| **Total current assets** | | **18,274** | **12,123** |
| | | | |
| **Total assets** | | **21,827** | **13,989** |

| **EQUITY AND LIABILITIES** EUR thousand | Note | Dec 31 2018 | Dec 31 2019 |
|---|---|---|---|
| **Equity** | | | |
| Subscribed capital | 20 | 36,022 | 43,528 |
| Capital reserve | 21 | 68,802 | 69,251 |
| Retained earnings | 22 | -73,115 | -85,807 |
| Net loss for the year | | -12,692 | -17,020 |
| Other comprehensive income | 23 | -404 | -323 |
| **Total equity** | | **18,613** | **9,629** |
| **Non-current liabilities** | | | |
| Lease liabilities | | 0 | 697 |
| Provisions | 25 | 47 | 44 |
| **Total non-current liabilities** | | **47** | **741** |
| **Current liabilities** | | | |
| Trade payables | 26 | 1,411 | 1,430 |
| Lease liabilities | | 0 | 216 |
| Deferred income | | 23 | 5 |
| Other liabilities | 27 | 771 | 1,368 |
| Provisions | 25 | 962 | 600 |
| **Total current liabilities** | | **3,167** | **3,619** |
| | | | |
| **Total equity and liabilities** | | **21,827** | **13,989** |

# CONSOLIDATED STATEMENT OF CASH FLOWS
FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31

| EUR thousand | Note | 2018 | 2019 |
|---|---|---|---|
| **Cash and cash equivalents at the beginning of the year** | | **12,826** | **16,487** |
| **Operating activities** | | | |
| **Net loss for the year** | | **-12,692** | **-17,020** |
| Adjustments for: | | | |
| Stock option expenses | 4 | 1,151 | 873 |
| Amortization of intangible assets | 5; 11 | 196 | 319 |
| Depreciation of property, plant and equipment | 5; 12 | 112 | 194 |
| Losses from the disposal of non-current assets | 6 | 0 | 1 |
| Foreign currency exchange results | | -4 | 25 |
| Financial income | 8 | -18 | -172 |
| Financial expenses | 8 | 552 | 65 |
| Taxes | 9 | -738 | 2,454 |
| **Operating result before changes in operating assets and liabilities** | | **-11,441** | **-13,261** |
| Changes in operating assets and liabilities: | | | |
| Inventories | 15 | -66 | 45 |
| Trade receivables | 16 | 782 | 84 |
| Other assets | 19 | 1,297 | -77 |
| Non-current and current provisions | 25 | -147 | -364 |
| Trade payables and other liabilities | 26; 27 | -776 | 118 |
| Deferred income | | 23 | -17 |
| Tax paid | | -23 | -34 |
| **Cash flow from operating activities** | 31 | **-10,351** | **-13,506** |

| EUR thousand | Note | 2018 | 2019 |
|---|---|---|---|
| **Investing activities** | | | |
| Payments to acquire intangible assets | | -15 | -47 |
| Payments to acquire property, plant and equipment | | -91 | -75 |
| Payments related to capitalized development costs | | 0 | 0 |
| Proceeds from investment grants received | 12 | 813 | 0 |
| Interest received | 8 | 17 | 169 |
| **Cash flow from investing activities** | 31 | **724** | **47** |
| **Financing activities** | | | |
| Proceeds from the issue of new shares | 20; 21 | 21,253 | 8,332 |
| Payments for the issue of new shares | 21 | -1,958 | -983 |
| Payments for the issue of convertible notes | | -1 | 0 |
| Payments for the redemption of convertible notes | | -6,020 | 0 |
| Payments for leases | | 0 | -229 |
| **Cash flow from financing activities** | 32 | **13,274** | **7,120** |
| | | | |
| **Net cash flow** | | **3,647** | **-6,339** |
| Currency translation effects | | 14 | 7 |
| **Cash and cash equivalents at the end of the year** | | **16,487** | **10,155** |

As of the balance sheet date, EUR 86 thousand of cash and cash equivalents included restricted cash.

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
AS OF DECEMBER 31

| EUR thousand | Note | Subscribed capital | Capital reserve | Retained earnings | Net loss for the year | Other comprehensive income | Group equity |
|---|---|---|---|---|---|---|---|
| **Dec 31, 2017** | | **24,014** | **59,509** | **-62,880** | **-10,235** | **169** | **10,577** |
| **Total comprehensive income 2018** | 23 | **0** | **0** | **0** | **-12,692** | **-573** | **-13,265** |
| Transfer of net loss for the year 2017 to retained earnings | | 0 | 0 | -10,235 | 10,235 | 0 | 0 |
| Capital increase with subscription rights | 20 | 11,427 | 0 | 0 | 0 | 0 | 11,427 |
| Premium from the capital increase with subscription rights | 20; 21 | 0 | 9,827 | 0 | 0 | 0 | 9,827 |
| Capital increase through contribution in kind | | 581 | 0 | 0 | 0 | 0 | 581 |
| Premium from the capital increase through contribution in kind | | 0 | 485 | 0 | 0 | 0 | 485 |
| Costs for the creation of new shares | 21 | 0 | -2,170 | 0 | 0 | 0 | -2,170 |
| Stock option expenses | 4; 21 | 0 | 1,151 | 0 | 0 | 0 | 1,151 |
| **Dec 31, 2018** | | **36,022** | **68,802** | **-73,115** | **-12,692** | **-404** | **18,613** |
| **Total comprehensive income 2019** | 23 | **0** | **0** | **0** | **-17,020** | **81** | **-16,939** |
| Transfer of net loss for the year 2018 to retained earnings | | 0 | 0 | -12,692 | 12,692 | 0 | 0 |
| Capital increase with subscription rights | 20 | 7,506 | 0 | 0 | 0 | 0 | 7,506 |
| Premium from the capital increase with subscription rights | 20; 21 | 0 | 826 | 0 | 0 | 0 | 826 |
| Costs for the creation of new shares | 21 | 0 | -1,250 | 0 | 0 | 0 | -1,250 |
| Stock option expenses | 4, 21 | 0 | 873 | 0 | 0 | 0 | 873 |
| **Dec 31, 2019** | | **43,528** | **69,251** | **-85,807** | **-17,020** | **-323** | **9,629** |

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS 2019

## BASIC INFORMATION, PRINCIPLES AND METHODS

### DESCRIPTION OF BUSINESS ACTIVITY

Epigenomics ("Epigenomics", the "Group" or the "Company") was founded as a limited liability company under German law (Gesellschaft mit beschränkter Haftung – GmbH) in 1998 and has its registered office in Berlin, Germany. In 2000, the Company was converted into a stock corporation under German law (Aktiengesellschaft – AG) and entered into the commercial register (Handelsregister) of Charlottenburg under HRB 75861. It has been listed in the Prime Standard segment of the Frankfurt Stock Exchange since July 19, 2004 (ticker symbol: ECX).

In accordance with its Articles of Association, the object of the Company is the development and marketing of procedures and devices for the production in quantity of particular epigenetic parameters such as DNA methylation patterns as well as the information technology bases necessary for their procurement and evaluation. Epigenomics AG is a molecular diagnostics company developing and commercializing a pipeline of proprietary products for screening, early detection and diagnosis of cancer. The Company's products enable doctors to diagnose cancer earlier and more accurately, leading to improved outcomes for patients.

### GENERAL PRINCIPLES

The consolidated financial statements of Epigenomics AG have been prepared in accordance with Section 315e of the German Commercial Code (Handelsgesetzbuch – HGB) and in application of the International Financial Reporting Standards (IFRSs) of the International Accounting Standards Board (IASB), London, in effect as of the December 31, 2019 balance sheet date, as adopted by the European Union (EU).

The Company has incurred accounting losses of EUR 85,807 thousand since being founded. The Company generated a net loss of EUR 17,020 thousand for 2019 (2018: EUR 12,692 thousand). The "going concern" principle in accordance with IAS 1.25 Presentation of Financial Statements was applied. The Company has liquid funds (cash, cash equivalents and marketable securities) of EUR 11.0 million at the end of 2019. Without further capital measures and/or cost reduction programs in 2020 or at the beginning of 2021, the continued existence of the Company as a going concern beyond the beginning of 2021 is at risk (material uncertainty). After the end of the reporting period, on March 31, 2020, such a measure was already implemented with the successful placement of new shares in the context of a 10% capital increase with generated net proceeds of EUR 3.6 million. On the basis of our experience from the past years and in assessment of the further developments in our business environment and the capital markets, we assume that we will be able to implement further necessary capital and cost reduction measures successfully in a timely manner.

The consolidated statement of comprehensive income (consolidated statement of profit or loss and other comprehensive income) has been prepared using the cost of sales method.

### REPORTING PERIOD, REPORTING CURRENCY, AND ROUNDING

The reporting period (comparative period) as defined in these consolidated financial statements is the period from January 1 to December 31, 2019 (2018). The reporting currency is the euro (EUR). Many figures are rounded to the nearest thousand euros, which may give rise to rounding differences in the figures presented in these notes.

## SCOPE OF CONSOLIDATION

The consolidated Group consists of Epigenomics AG as the parent company (registered office: Geneststrasse 5, 10829 Berlin, Germany) and Epigenomics, Inc., as its sole subsidiary during the reporting period. The subsidiary is registered in the U.S. state of Washington and since the reporting year has based its operations out of San Diego (11055 Flintkote Ave, Suite A, San Diego, CA 92121). Epigenomics AG held 100% of the share capital and the voting rights of Epigenomics, Inc. between January 1, 2018 and December 31, 2019.

For the reporting year and the previous year, the two companies each prepared separate financial statements which were either audited or reviewed, independent of their inclusion in the consolidated financial statements.

## PRINCIPLES OF CONSOLIDATION

In acquisition accounting, the carrying amount of the investment is offset against the share of equity of the subsidiary attributable to the parent as at the date of acquisition. Any resulting difference is added to the assets and liabilities in the amount in which their market value deviates from their carrying amount at the time of the initial consolidation. Any amount in excess is recognized as goodwill.

All intercompany transactions and interim results, income and expenses, profits and losses, receivables and payables are eliminated in full on consolidation.

## APPLICATION OF NEW AND REVISED IFRSS AND INTERPRETATIONS AND EFFECTS ON THE COMPANY'S CONSOLIDATED FINANCIAL STATEMENTS FOR FISCAL YEAR 2019

In the reporting year, the Group for the first time applied the following new and amended IFRSs and Interpretations issued by the IASB and endorsed by the EU that are effective for accounting periods beginning on or after January 1, 2019. Generally, the new standards and amendments mentioned below require prospective application.

*IFRS 16 Leases (endorsed by the EU on October 31, 2017)*

The new IFRS 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessees and lessors. Upon its effective date it superseded IAS 17 *Leases*, IFRIC 4 *Determining Whether an Arrangement Contains a Lease*, SIC-15 *Operating Leases* – Incentives and SIC-27 *Evaluating the Substance of Transactions in the Legal Form of a Lease*. IFRS 16 makes significant changes to lessee accounting. It removes the distinction between operating and finance leases under IAS 17 and instead requires a lessee to recognize a right-of-use asset and a lease liability at lease commencement for all leases, except for short-term leases and leases of low value assets. A lessee can apply IFRS 16 either by means of a full retrospective approach or a modified retrospective approach. If the latter approach is selected, an entity is not required to restate the comparative information and the cumulative effect of initially applying IFRS 16 must be presented as an adjustment to opening retained earnings (or other component of equity as appropriate).

The application of IFRS 16 impacted the Company's financial statements in fiscal year 2019. The Company elected to apply the modified retrospective approach on initial application and exercises the recognition exemptions for short-term leases or leases of low-value assets. As a result of this new standard on leases, the Company's rental agreements for office premises at its locations in Berlin and San Diego are no longer recognized as off-balance sheet obligations, but rather as balance sheet liabilities effective January 1, 2019 and April 1, 2019, respectively. Accordingly, the rental agreements were recognized as non-current assets (right-of-use assets) on the basis of the applicable contractual situations and parameters. The total net value of these right-of-use assets amounted to EUR 877 thousand as of the reporting date. The figure includes the contractual options for the Company to extend the term of the leases. This caused an increase in total assets and a decrease in the equity ratio in the reporting period. Amortization and impairment, as well as the interest expense on the affected leases is now recognized in other comprehensive income as opposed to the previous method of recognizing the lease expense, which has caused in a slight improvement in EBIT, EBITDA, and EBITDA before share-based payment expenses. The depreciation expense amounted to EUR 202 thousand in 2019 and the associated interest expense amounted to EUR 63 thousand. Aside from these commercial leases, the Company has no other lease agreements in place that are affected by IFRS 16.

*IFRIC 23 Uncertainty over Income Tax Treatments (endorsed by the EU on October 23, 2018)*

The new IFRIC 23 clarifies the accounting for uncertainties in income taxes. The interpretation is to be applied to the determination of taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under IAS 12. IFRIC 23 was endorsed by the EU on October 23, 2018.

Applying IFRIC 23 did not have any effect on the Company's financial statements in fiscal year 2019. Nor are any effects currently expected in future fiscal years.

*Amendments to IFRS 9 Prepayment Features with Negative Compensation (endorsed by the EU on March 22, 2018)*

The Amendments to IFRS 9 contain on the one hand changes regarding symmetric prepayment options. These amend the existing requirements in IFRS 9 regarding termination rights in order to allow measurement at amortized cost (or, depending on the business model, at fair value through other comprehensive income) even in the case of negative compensation payments. On the other hand, the amendments clarify that the carrying amount of a financial liability is immediately recognized in profit or loss following modification or exchange. A retrospective change of the accounting treatment may therefore become necessary if in the past the effective interest rate was adjusted and not the amortized cost amount. The Amendments to IFRS 9 were endorsed by the EU on March 22, 2018.

Applying the Amendments to IFRS 9 did not have any effect on the Company's financial statements in fiscal year 2019. Nor are any effects currently expected in future fiscal years.

*Amendments to IAS 19 Plan Amendment, Curtailment or Settlement (endorsed by the EU on March 13, 2019)*

In the event a defined benefit plan is amended, curtailed or settled, the Amendments to IAS 19 require an entity to determine the current service cost and net interest for the remainder of the fiscal year using the same updated actuarial assumptions used to remeasure the net defined benefit liability. In addition, the amendments clarify the effect of a plan amendment, curtailment or settlement on the requirements regarding the asset ceiling.

Applying the Amendments to IAS 19 did not have any effect on the Company's financial statements in fiscal year 2019. Nor are any effects currently expected in future fiscal years.

*Amendments to IAS 28 Long-term Interests in Associates and Joint Ventures (endorsed by the EU on February 8, 2019)*

The Amendments to IAS 28 clarify that an entity applies IFRS 9, including its impairment requirements, to long-term interests in an associate or joint venture that form part of the net investment in the associate or joint venture but to which the equity method is not applied. In addition, paragraph 41 was deleted.

Applying the Amendments to IAS 28 did not have any effect on the Company's financial statements in fiscal year 2019. Nor are any effects currently expected in future fiscal years.

*Annual Improvements to IFRS Standards (2015–2017 Cycle)*
*(endorsed by the EU on March 14, 2019*

The Annual Improvements to IFRS Standards (2015–2017 Cycle) include amendments to IFRS 3 Business Combinations, IFRS 11 *Joint Arrangements*, IAS 12 *Income Taxes*, and IAS 23 *Borrowing Costs*. The Amendments to IFRS 3 clarify that an entity must remeasure its previously held interest in a joint operation when it obtains control of the business. The Amendments to IFRS 11 clarify that an entity does not remeasure its previously held interest in a joint operation when it obtains joint control of the business. The Amendments to IAS 12 clarify that all income tax consequences of dividend payments must be accounted for in the same way. The Amendments to IAS 23 clarify that if any borrowing used to develop an asset remains outstanding after the related qualifying asset is ready for its intended use or sale, that borrowing becomes part of the funds that an entity borrows generally when calculating the capitalization rate on general borrowings.

Applying the Annual Improvements to IFRS Standards (2015–2017 Cycle) did not have any effect on the Company's financial statements in fiscal year 2019. Nor are any effects currently expected in future fiscal years.

**Mandatory application for fiscal years beginning on or after January 1, 2020:**

*Amendments to IFRS 3 Definition of a Business (not yet endorsed by the EU)*

The Amendments to IFRS 3 are intended to resolve the problems that arise when an entity determines whether it has acquired a business or a group of assets. Such problems may arise due to the fact that the accounting requirements for goodwill, acquisition costs and deferred taxes differ on the acquisition of a business and on the acquisition of a group of assets.

The Company does not expect that the application of the Amendments to IFRS 3 will have any effect on its financial statements for fiscal years from 2020 onward.

*Amendments to IAS 1 and IAS 8 Definition of Material (endorsed by the EU on November 29, 2019)*

The Amendments to IAS 1 and IAS 8 clarify the definition of "material" and align the definition used in the Conceptual Framework and the standards themselves.

The Company does not expect that the application of the Amendments to IAS 1 and IAS 8 will have any effect on its financial statements for fiscal years from 2020 onward.

*Amendments to IFRS 9, IAS 39 and IFRS 7 Interest Rate Benchmark Reform*
*(endorsed by the EU on January 15, 2020)*

The amendments to IFRS 9, IAS 39 and IFRS 7 were necessitated by capital market developments that have brought into question the long-term viability of the established interest reference rates currently in use (e.g., LIBOR). Firstly, they modify specific hedge accounting requirements so that entities apply those hedge accounting requirements assuming that the interest rate benchmark on which the hedged cash flows and cash flows from the hedging instrument are based will not be altered as a result of interest rate benchmark reform. Secondly, the amendments will be mandatory for all hedging relationships that are affected by the interest rate benchmark reform. In addition, they require specific disclosures about the extent to which entities' hedging relationships are affected by the amendments.

The Company does not expect that the application of the Amendments to IFRS 9, IAS 39 and IFRS 7 will have any effect on its financial statements for fiscal years from 2020 onward.

*Revisions to Conceptual Framework for Financial Reporting in Accordance with IFRSs (endorsed by the EU on November 29, 2019)*

The new Conceptual Framework includes revised definitions of an asset and a liability as well as new guidance on measurement and derecognition, presentation and disclosure. These revisions result in amendments to multiple standards and interpretations that refer to the Conceptual Framework.

The Company does not expect that the Revisions to Conceptual Framework for Financial Reporting in accordance with IFRSs will have any effect on its financial statements for fiscal years from 2020 onward.

### Mandatory application for fiscal years beginning on or after January 1, 2022:

*IFRS 17 Insurance Contracts (not yet endorsed by the EU)*

The new IFRS 17 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts within the scope of the standard. The objective of IFRS 17 is to ensure that a reporting entity provides relevant information and faithfully represents those contracts.

The Company does not expect that the application of the Amendments to IFRS 17 will have any effect on its financial statements for fiscal years from 2022 onward.

### Management's judgment, assumptions and expectations

The management of the Company has made several judgments in the process of applying the entity's accounting policies that have a significant effect on the amounts recognized in the financial statements. Those judgments concern the capitalization of development costs and the recognition of deferred taxes. The judgments are described for each relevant position in the enumeration of accounting and valuation principles.

Management's expectations on the future are usually based on the current economic outlook according to the consensus prognoses by leading economic and financial research institutions and independent analysts. Due to the worldwide development in connection with the spread of the corona virus after the end of the reporting period, it is hardly possible to assess the further economic conditions and the consequences of this crisis. It can only be stated that the global economic situation will deteriorate significantly and negative effects will be felt in almost all areas and at all companies.

The plans of the Group's management do not expect Epigenomics to be highly dependent on the overall economic situation in the short term. The Group's operating activities are furthermore not highly dependent on the availability of or the price development for commodities or industrial supplies but rather on the individual situation of the Company and its opportunities to continue its operations by further financing transactions. Therefore, the Company is still dependent on the condition and the development of the capital markets (mainly in the U.S.A. and in Germany), particularly with regard to the life sciences industry. Additionally, the Company is strongly dependent on inclusion in the guidelines issued by medical professional societies and the reimbursement decisions by the payors in the healthcare system of the U.S.A. with regard to its lead product – Epi proColon, and subsequently on the commercial success of this product. The Company's strategy going forward assumes positive reimbursement decisions in 2020 and the years to come.

The economic conditions in Germany and the U.S.A. will be in 2020 and potentially also in the following years significantly influenced by the aforementioned corona crisis. Also, effects on tax policies in these countries cannot be ruled out either temporarily or permanently, but cannot be predicted at present either with respect to their nature and scope or with respect to their relevance for Epigenomics. No significant changes that would affect the Company in regulatory requirements in the countries that the Company primarily exports to, are anticipated currently in the coming year.

All of the Company's future scenarios furthermore assume essentially unrestricted access to the relevant clinical and biological samples, corresponding clinical data and sufficient resources for the execution of the Company's commercial projects.

In the short- to medium-term, the Company expects the EUR/USD exchange rate to hover around the rate at the end of 2019, although it will remain susceptible to more pronounced fluctuations as a reaction to key global economic and geopolitical events. Management's plans for 2020 are based on an average exchange rate of EUR/USD 1.10. It also took note of the predictions of financial experts and banks as of the date on which the budget was drawn up.

The preparation of the consolidated financial statements in accordance with IFRSs requires, in the case of several items, that assumptions or estimates be made that affect the carrying amounts in the consolidated balance sheet and/or the amounts recognized in the consolidated statement of comprehensive income (consolidated statement of profit or loss and comprehensive income). This also applies to the presentation of contingent assets and liabilities. The actual amounts may vary from these assumptions and estimates.

Determining the useful life of capitalized development costs of the Company's products requires a long-term estimation of the market approval timelines for the products, their market acceptance and/or the speed of their market penetration, regulatory developments in key markets, the timing and the extent of reimbursement decisions, and competition just to name some of the most important parameters. Particularly for novel products like blood-based cancer tests there are no empirical values and less experience available, which makes any estimations difficult. The Group's management closely observes developments on the key markets and regularly reviews its own projections. Reaching or not reaching a milestone – like a market approval decision – will therefore lead to remeasurements which may possibly be decisive for a change of the previously assumed useful lives.

In particular, further assumptions and estimates are required for:

- determining the useful lives of other property, plant and equipment and non-current intangible assets,
- determining whether the criteria for the capitalization of development costs and the recoverability of internally generated intangible assets are met,
- testing assets for impairment (particularly regarding intangible assets),
- applicable incremental borrowing interest rate to determine the net present value of the leasing liabilities,
- assessing the possible exercise of contractual extension options,
- determining the terms of in-licensed intellectual property rights,
- determining if deferred taxes are realizable,
- determining whether financial instruments are to be classified as measured at amortized cost, fair value through other comprehensive income, or fair value through profit or loss,
- determining the fair value of financial instruments,
- setting the parameters regarding the measurement of share-based payment instruments, and
- accounting for provisions (particularly the determination of the likelihood of occurrence).

## ACCOUNTING AND VALUATION PRINCIPLES

### Fair value measurement

These consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at revalued amounts or their fair values at the end of each reporting period.

For determining and disclosing the fair value of financial instruments, the Company uses the following hierarchy in accordance with IFRS 13 *Fair Value Measurement*:

Level 1: Quoted (unadjusted) prices in active markets for identical assets or liabilities

Level 2: Inputs other than quoted prices included within level 1 that are observable for assets or liabilities, either directly (as prices) or indirectly (derived from prices)

Level 3: Inputs for assets or liabilities that are not based on observable market data (unobservable inputs)

The carrying amounts of financial assets and liabilities such as cash and cash equivalents, marketable securities, trade receivables, trade payables, convertible notes and other current liabilities approximate their fair values due to their short-term maturities. The fair value of marketable securities is based on quoted market prices (level 1). There were no transfers between level 1 and level 2 fair value measurements, and no transfers into or out of level 3 fair value measurements during the reporting period.

## REVENUE RECOGNITION

Revenue from contracts with customers is recognized for the sale of goods and property rights (e.g., patents) or the rendering of other services when the customer obtains the control of the distinct goods or service and the customer has the ability to direct the use of and obtain the benefits from the goods or services received. The revenue recognized is the amount of the consideration that the entity would expect to be entitled to in exchange for these goods or services. If a contract includes a series of distinct goods or services, the transaction price is allocated to each performance obligation on the basis of the respective stand-alone selling price. If a stand-alone selling price is not directly observable, the entity reasonably estimates the stand-alone selling price. Revenue is recognized for each performance obligation either at a specific point in time or over a specific period of time.

Non-refundable prepayments received for delivering goods or performing services in the future are deferred and subsequently recognized as revenue when the goods are delivered or the services performed. Optional prolongation terms are considered individually in accordance with the underlying exercise conditions and anticipated likelihood of their exercise.

License revenue is generated by granting third parties exclusive and non-exclusive licenses in technologies and biomarkers that the Company has patented or has itself licensed. For each instance in which a license is granted, it must be determined whether the license transfers to the customer at a point in time or over time. License revenue is recognized on an accrual basis in accordance with the substance of the underlying contract. License revenue determined over time is recognized on a straight-line basis over the term of the contract. License revenue that is based on product sales and/or other reference values is recognized on the basis of the underlying contract, to the extent that those reference values can reliably be determined.

In the case of sales with a right of return, the revenue is only recognized in full when the right of return expires. At this date, the revenue is only recognized at cost less any costs of return. There were no sales with a right of return in the reporting period.

### Cost of sales

Cost of sales includes expenses for material used in products sold, changes in inventories, services received in connection with product sales or other types of revenue, royalties to be paid to third parties and triggered by product sales or other types of revenue. In addition, cost of sales includes directly allocable portions of personnel costs, costs of intellectual property, depreciation, amortization and impairment, as well as pro rata overheads.

### Other income

Other income includes third-party research grants, currency exchange rate gains, earnings from the reversal of provisions, income from the sale of assets outside of the Company's ordinary business activities, reimbursements from suppliers and insurance companies, and other non-operating earnings.

### Government grants

In individual cases, cost contributions from public authorities are granted for research projects. These grants are partially paid in advance and then reported as deferred income. To some extent, grants will only be paid after the work has been performed and proven. A current asset is recorded in such cases.

Subsidies received for product development activities are deducted from capitalized development costs, and investment grants and subsidies are offset directly against the acquisition costs of the subsidized assets, i.e., in both cases the carrying amount of the asset is reduced. The grant is thus recognized as a reduced depreciation expense over the remaining useful life.

Government grants usually come with certain requirements, which have been met so far by the Company and are expected to be met going forward. Should the requirements cease to be met in the future, redemption obligations could arise which have not been recognized yet.

### Research and development costs

Research and development costs (R&D costs) include the personnel costs for the R&D staff, costs of R&D material, depreciation, amortization and impairment, service fees, licensing fees and other direct expenses in connection with the Company's research and/or development activities (including clinical studies) which cannot be classified as revenue-generating activities. In addition, R&D costs include pro rata overhead costs charged to the R&D departments.

### Selling, general and administrative costs

Selling, general and administrative costs (SG&A costs) include:

- all direct personnel and material expenses of the corresponding departments,
- depreciation and amortization expenses of the corresponding departments,
- other direct expenses of the corresponding departments, and
- pro rata overheads of the corresponding departments as well as the Company's statutory costs.

### Other expenses

Other expenses consist of all operating expenses which do not classify as cost of sales, R&D costs or SG&A costs as defined above. This includes in particular but not exclusively

- foreign exchange rate losses,
- losses from the disposal of assets outside of the ordinary business activities, and
- expenses due to extraordinary effects or measures such as restructuring expenses or write-downs of non-current assets (e.g., goodwill impairment).

### Share-based payment expenses

The fair value of granted stock options is determined in accordance with IFRS 2 Share-based Payment by simulation of the future movement in the Company's share capital on the basis of market parameters (e.g., volatility and risk free rate) and normal distributed random numbers ("Monte Carlo Simulation"). The fair value of the stock options is expensed over the expected option term of up to four years against the capital reserve. The measurement is based on the fair value as of the grant date.

The fair value of phantom stock rights granted in previous years is calculated using the binomial model based on the Cox-Ross-Rubinstein model in accordance with IFRS 2 Share-based Payment, and recognized pro rata temporis as expenses and as a provision due to the obligation of the Company for a cash settlement in the future. If phantom stock rights are held by current employees of the Group, the related expenses are recorded as personnel costs and included in the payroll provisions. If phantom stock rights are held by former employees of the Group, the related expenses are recorded as other costs and included in other provisions.

### Intangible assets

Intangible assets other than goodwill and capitalized development costs are measured at cost less straight-line amortization. Depending on the investment, the useful life of between three years (software) and twenty years (patents) will be defined. For patents, the useful life in individual cases depends on the term of the patent protection. Amortization of intangible assets is allocated in the consolidated statement of comprehensive income (consolidated statement of profit or loss and comprehensive income) to the functional area in which they are used. IAS 38 Intangible Assets is applied. In accordance with this standard, an intangible asset is reported if it is likely that a future economic benefit is associated with the use of such asset and that its cost can be reliably determined.

Intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment annually. In addition, assets or groups of assets are tested for impairment if there are any indications at the measurement date that they may be impaired. If the carrying amount of an intangible asset exceeds the recoverable amount of this asset as of the balance sheet date, this will be taken into account by means of a write-down, the amount of which is determined by the result of the impairment test. If there is no longer any indication of impairment, the impairment loss is reversed up to a maximum of the asset's amortized cost.

### Rights of use and leases

The Company does not account for short-term leases or leases that involve assets of minor value and recognizes the payments based thereon as expenses. Material leases entered into by the Company are accounted for using a uniform model. The rights of use for the underlying assets are measured at cost less accumulated amortization/depreciation and regularly reviewed for impairment. The rights are amortized on a straight-line basis over the underlying lease terms.

At the beginning of the respective useful lives, lease liabilities arising from leases are recognized at the present value of the lease payments (rents) payable over the term of the lease. To calculate the present value, the Company uses a marginal borrowing rate applicable at that time.

In the case of leases with a remaining term of more than twelve months at the valuation date, the corresponding lease liabilities are divided and reported as current (due within twelve months) and non-current (due after more than twelve months) liabilities.

### Capitalized development costs

Expenditure on research activities is recognized as an expense in the period in which it is incurred. An internally generated intangible asset arising from internal development is recognized if, and only if, all of the following requirements in accordance with IAS 38.57 *Intangible Assets* have been fulfilled:

- proof of the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- proof of the intention to complete the intangible asset to use or sell it;
- proof of the ability to use or sell the intangible asset;
- proof of how the intangible asset will generate probable future economic benefits;
- proof of the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset;
- demonstration of the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognized for the capitalization of development costs is the sum of expenditure incurred from the date when the intangible assets first met the aforementioned recognition criteria. Where no internally generated intangible asset can be recognized, development expenditure is charged to profit or loss in the period in which it is incurred. Subsequent to initial recognition, capitalized development costs are reported at cost less accumulated amortization and impairment losses, on the same basis as intangible assets acquired separately. The useful life of such capitalized development costs is assumed under consideration of the business plan and amounts to up to ten years for the currently capitalized assets. Amortization is recorded on a straight-line basis.

### Property, plant and equipment

Property, plant and equipment is measured at cost less depreciation. Apart from directly attributable costs, pro rata overhead costs and depreciation are also included in the cost of internally produced items of property, plant and equipment. The cost is reduced by public and governmental investment grants. Repair costs are immediately recorded as an expense. Leasehold improvements are depreciated on a straight-line basis over the remaining term of the underlying leases (including optional extension periods). Movable items of property, plant and equipment are depreciated on a straight-line basis. The useful life is three to ten years for technical and electronic equipment and five to ten years for operating and office equipment.

Once disposed of, the asset and its accumulated depreciation are reported as a disposal. Income or expenses resulting from the disposal of assets (proceeds less residual carrying amount) is reported in the consolidated statement of comprehensive income (consolidated statement of profit or loss and comprehensive income) under other income/other expenses.

If, based on external or internal sources of information, there are indications that the carrying amount at the balance sheet date of an item of property, plant or equipment measured as described above exceeds its recoverable amount upon disposal, the asset is tested for impairment and, if necessary, written down. The amount of the impairment is determined on the basis of the fair value of the item of property, plant and equipment less costs to sell or – if higher – the net present value of future cash flows estimated from the value in use of the item of property, plant and equipment. An impairment test will be carried out annually for assets or groups of assets for which an impairment is assumed. If there is no longer any indication of impairment, the impairment loss is reversed up to a maximum of the asset's amortized cost.

### Deferred taxes

Deferred taxes are calculated in accordance with IAS 12 Income Taxes. They are recognized on the basis of temporary differences between the carrying amount of assets and liabilities in the financial statements in accordance with IFRS of the companies involved and in their tax accounts. Furthermore, deferred tax assets are recognized for unutilized tax loss carryforwards and unutilized tax credits to the extent that deferred tax liabilities exist, or that taxable income is likely to be available against which to utilize the benefits of the temporary differences and that these are expected to reverse in the foreseeable future. At each balance sheet date, it is determined whether or not these requirements are still met. If such a realization in the foreseeable future is not likely, a valuation allowance is recognized against the tax loss carryforwards.

Deferred tax assets and tax liabilities from temporary differences associated with investments in subsidiaries are not recognized when the timing of the reversal of the temporary difference can be controlled, and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets and liabilities are measured using the local tax rates applicable on the balance sheet date or the local tax rates which are expected to apply at the future point in time when the asset is realized or the liability settled. Tax rates are used that have been enacted or substantively enacted by the end of the reporting period. Deferred tax assets and liabilities are only offset if they relate to taxes levied by the same tax authority and if the Group intends to settle its current tax assets and liabilities on a net basis.

### Inventories

Inventories consist of finished and unfinished products, raw materials, low-value consumables as well as other production supplies. They are measured at the lower of cost and net realizable value. The manufacturing costs of the finished and semi-finished products include directly attributable unit costs, depreciation, amortization of capitalized development costs and overheads attributable to the production process. For finished and semi-finished products the principle of item-by-item measurement applies.

### Financial instruments

A financial instrument is a contract that gives rise to a financial asset for one contracting party and a financial liability or equity instrument for another contracting party.

At initial recognition, trade receivables without significant financing components are measured at their transaction price. All other financial assets and liabilities are initially measured at fair value.

When the Company first recognizes a financial asset, it assigns it to one of the following measurement categories:

- at amortized cost,
- debt instruments at fair value through other comprehensive income (FVOCI),
- equity instruments at fair value through other comprehensive income (FVOCI),
- at fair value through profit or loss (FVTPL).

In the case of assets not at fair value through profit or loss, these are measured at initial recognition on the basis of the transaction costs directly attributable to their acquisition or issue.

Financial assets are only reclassified following initial recognition when the Company changes its business model for managing financial assets.

A financial asset is measured at amortized cost if it is not designated as at fair value through profit or loss and both of the following conditions are met:

- it is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows, and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A debt instrument is measured at fair value through other comprehensive income if it is not designated as at fair value through profit or loss and both of the following conditions are met:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

At initial recognition of an investment in an equity instrument that is not held for trading, the Company can make the irrevocable election to present in other comprehensive income subsequent changes in the fair value of that investment. The Company makes this election on a case-by-case basis for each investment.

All financial assets not measured at amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss. This includes all derivative financial assets. The Company may, at initial recognition, irrevocably designate as measured at fair value through profit or loss financial assets that would otherwise have fulfilled the criteria for measurement at amortized cost or fair value through other comprehensive income, if doing so eliminates or significantly reduces a measurement or recognition inconsistency (accounting mismatch).

The Company assesses the objectives of the business model within which the financial asset is held. It does so at portfolio level since this is the best way to reflect how the business is managed and how information is passed on to management. The information to be taken into consideration includes:

- the disclosed policies and objectives of the portfolio and the practical implementation of those policies;
- how the portfolio's performance is measured and reported to management;
- the risks to which the performance of the business model (and the financial assets held under that business model) is exposed and how those risks are managed;
- the frequency, extent and timing of sales of financial assets in prior periods and expectations in respect of future sales activities.

Financial assets held or managed for trading whose performance is assessed on the basis of fair value are measured at fair value through profit or loss.

In order to determine whether the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, "principal" is defined as the fair value of the financial asset at initial recognition. "Interest" consists of consideration for the time value of money, for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g., liquidity risk and administration costs), as well as a profit margin. In determining whether the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, the Company takes into consideration the contractual terms underlying the instrument. This includes determining whether the financial asset includes a contractual term that could change the timing or amount of the contractual cash flows and thus cause this condition to no longer be met. In its assessment, the Company takes into consideration:

- specific events that would trigger a change in the timing or amount of the cash flows,
- terms that would cause the interest rate (including variable interest rate) to be adjusted,
- options for early repayment or extensions, and
- terms that limit the Company's claim to the cash flows from a specified asset.

A prepayment option fulfills the criterion of solely payments of principal and interest on the principal amount outstanding if the prepayment amount substantially represents only unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for the early termination of the contract.

Financial liabilities are classified and measured at amortized cost or at fair value through profit or loss. A financial liability is classified at fair value through profit or loss if it is held for trading, is a derivative or is designated as such at initial recognition. Measuring financial liabilities at fair value through profit or loss means that they are carried at fair value and any net gains or losses, including interest expenses, are recognized through profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expenses and foreign exchange gains or losses are recognized through profit or loss. Gains or losses on derecognition are likewise recognized through profit or loss.

The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire or it transfers the right to receive the cash flows as part of a transaction in which substantially all of the risks and rewards of ownership of the financial asset are also transferred. Derecognition also applies if the Company neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset and does not retain control of the transferred asset. The Company executes transactions in which it transfers the recognized assets but retains either all or substantially all of the risks and rewards of ownership of the transferred asset. In these cases, the transferred assets are not derecognized. Write-downs are generally recognized on trade receivables if they are more than one year overdue and are not subject to enforcement action.

The Company derecognizes a financial liability if the obligations specified in the contract are discharged or canceled or expire, or if the terms of the contract have been amended and the cash flows from the modified liability are significantly different. In this case, a new financial liability is recognized at fair value on the basis of the modified contractual terms. When derecognizing a financial liability, the difference between the carrying amount of the repaid liability and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized through profit or loss.

The Company invoices its customers in accordance with the individual contractual arrangements or the valid general terms and conditions of business. The invoices are generally payable net within 30 days. Prepayment is generally a condition for new customers. In the case of license receivables, the payment terms are determined on the basis of the underlying licensing agreements. The resulting payments are either payable on demand or within a period of up to 90 days.

### Cash equivalents

A cash equivalent is defined as a financial instrument which is readily convertible on a short-term basis to a known amount of cash and which is subject to an insignificant risk of changes in value (IAS 7.6 Statement of Cash Flows). Financial instruments generally qualify as cash equivalents when they are more closely related to the money markets than to the bond markets and have a remaining term of less than three months. They are measured at amortized cost.

### Prepaid expenses

Payments before the balance sheet date in respect of expenses for a specific period after that date are deferred and reported at amortized cost as prepaid expenses in other current assets.

### Deferred income

Deferred income is recognized for grants and for research and development payments ("R&D payments") received in advance. Grants received in advance for research expenses which were provided by governmental or comparable national, regional or local authorities are recognized through profit or loss as other income over the subsidized terms of each grant project according to its stage of completion. Subsidies received in advance for product development activities are deducted from capitalized development costs. Payments received in advance from customers for R&D services to be rendered by the Company in the future or for licenses are deferred and recognized through profit or loss under the terms and conditions of the contract according to the stage of project completion (cost-to-cost method).

### Provisions

In accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets, a provision is recognized if a present obligation exists as a result of a past event, if it is probable that an outflow of resources embodying economic benefits will be required to settle this obligation and if a reliable estimate can be made of the amount of the obligation. The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the balance sheet date, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows expected to be required to settle the present obligation, its carrying amount is the present value of these cash flows. Obligations arising from share-based payment programs that provide for awards payable in cash (i.e., the Company's phantom stock programs) are measured at fair value and recognized as current or non-current provisions based on the remaining term of the underlying rights until these can be exercised.

## ALTERNATIVE PERFORMANCE INDICATORS

The operating result, or rather earnings before interest and taxes (EBIT), is defined as the total comprehensive income for the year/period before other comprehensive income for the year/period, income taxes, the other financial result, interest expenses and interest income. EBITDA is defined as EBIT before depreciation and amortization. Share-based payment is defined as the expenses resulting from the change in the total fair value of all stock options and phantom stock rights granted over the fiscal year/the period. EBITDA before share-based payment expenses is defined as EBITDA before expenses resulting from share-based payment.

EBIT, EBITDA and EBITDA before share-based payment expenses are all non-IFRS measures used and defined by Epigenomics that are standard practice in global capital market communication and are sought after by analysts and investors.

## CURRENCY TRANSLATION

In the separate financial statements, receivables and liabilities in foreign currencies are measured using the corresponding euro reference rate published by the European Central Bank and applicable as of the balance sheet date.

The functional and reporting currency of our U.S. subsidiary is the U.S. dollar.

For consolidation purposes, the expenses and income of the subsidiary are translated into euros at the average monthly exchange rates. The assets and liabilities of the subsidiary are translated into the Group's reporting currency (euros) at the end of each reporting period using the closing rate. Equity components that are measured in terms of historical cost in U.S. dollars are translated using the exchange rate at the date of the transaction. The resulting translation differences are accounted for separately within equity.

Foreign currency exchange rates applied in the reporting period:

| **Closing rates** | **Dec 31, 2018** | **Dec 31, 2019** |
|---|---|---|
| EUR/USD | 1,1450 | 1,1234 |

| **Average rates** | **2018** | **2019** |
|---|---|---|
| EUR/USD | 1,1793 | 1,1195 |

# NOTES TO THE CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME)

## 1 REVENUE

Revenue by type:

| | 2018 | | 2019 | |
|---|---|---|---|---|
| | EUR thousand | in % | EUR thousand | in % |
| Product sales (own and third-party) | 808 | 52.7 | 988 | 87.8 |
| License revenue | 636 | 41.5 | 137 | 12.2 |
| R&D revenue and reimbursements | 46 | 3.0 | 0 | 0 |
| Other revenue | 43 | 2.8 | 0 | 0 |
| **Total revenue** | **1,533** | **100.0** | **1,125** | **100.0** |

License revenue is generated by out-licensing of own intellectual property (e.g., technologies, biomarkers) to third parties. Revenue from product sales is generated by the sale of the Group's products through own sales channels, through distribution partners or by the rendering of services by third parties based on the Company's products. R&D revenue and reimbursements are generated by rendering services in connection with contract research and by charging pass-through costs to third parties.

Revenue by geographical market:

| | 2018 | | 2019 | |
|---|---|---|---|---|
| | EUR thousand | in % | EUR thousand | in % |
| Europe | 296 | 19.3 | 267 | 23.8 |
| North America | 637 | 41.6 | 714 | 63.4 |
| Asia | 598 | 39.0 | 135 | 12.0 |
| Rest of the world | 2 | 0.1 | 9 | 0.8 |
| **Total revenue** | **1,533** | **100.0** | **1,125** | **100.0** |

In the reporting year, 46% of total revenue (2018: 81%) was generated by the Company's three largest customers.

## 2 OTHER INCOME

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Foreign exchange rate gains | 704 | 2,187 |
| Recoveries and refunds | 64 | 156 |
| Income from the reversal of provisions | 564 | 94 |
| Correction of deferred liabilities | 23 | 31 |
| Third-party research grants from public authorities | 58 | 17 |
| Income from the disposal of other assets | 1 | 0 |
| Other | 27 | 3 |
| **Total other income** | **1,441** | **2,488** |

Of the income from the reversal of provisions, EUR 20 thousand (2018: EUR 544 thousand) was due to fluctuations in the fair value of the phantom stock rights granted.

## 3 COST ALLOCATION BY FUNCTION

| | 2018 | | | | |
|---|---|---|---|---|---|
| EUR thousand | Cost of sales | R&D costs | SG&A costs | Other expenses | Total |
| Materials and consumables | 422 | 383 | 40 | 0 | 845 |
| Depreciation and amortization | 0 | 221 | 87 | 0 | 308 |
| Personnel costs | 5 | 2,901 | 4,440 | 0 | 7,346 |
| Other costs | 13 | 2,913 | 4,136 | 308 | 7,370 |
| **Total** | **440** | **6,418** | **8,703** | **308** | **15,869** |

| | 2019 | | | | |
|---|---|---|---|---|---|
| EUR thousand | Cost of sales | R&D costs | SG&A costs | Other expenses | Total |
| Materials and consumables | 239 | 1,010 | 15 | 0 | 1,264 |
| Depreciation and amortization | 0 | 267 | 246 | 0 | 513 |
| Personnel costs | 0 | 2,596 | 4,166 | 0 | 6,762 |
| Other costs | 14 | 3,467 | 4,508 | 1,758 | 9,747 |
| **Total** | **253** | **7,340** | **8,935** | **1,758** | **18,286** |

## 4 PERSONNEL COSTS

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Wages and salaries | 5,495 | 5,081 |
| Share-based payment expenses | 1,151 | 873 |
| thereof expenses for issuing stock options (SO) to members of the Executive Board | 371 | 310 |
| Expenses for issuing SO to G. Hamilton (CEO) | 211 | 175 |
| Expenses for issuing SO to Jorge Garces (CEO) | 58 | 59 |
| Expenses for issuing SO to Albert Weber (EVP Finance) | 102 | 76 |
| Social security expenses | 700 | 808 |
| thereof employer's contribution to a national pension fund (Germany) | 134 | 127 |
| thereof employer's contribution to a 401(k) savings plan (U.S.A.) | 68 | 90 |
| **Total personnel costs** | **7,346** | **6,762** |

The Group employed an average of 43 employees in 2019 (2018: 43). The 41 employees as of the end of 2019 included 21 employees across the areas of research, product development, IP, regulatory affairs, quality assurance and manufacturing. Their activities are reported as R&D costs in the financial statements. The remaining 20 employees reported as selling, general and administrative functions work in business and commercial development, customer and technical service, accounting, finance, legal, human resources, IT, investor relations and general management.

As in the prior year, there was no expense either for payments for exercise of PSRs or for the remeasurement of PSRs granted but not exercised. The fluctuation of the fair value of the rights amounted to EUR 0 thousand (2018: EUR 2 thousand). Measurement of the stock options granted gave rise to share-based payment expenses amounting to EUR 873 thousand (2018: EUR 1,151 thousand).

## 5 DEPRECIATION AND AMORTIZATION

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Amortization of intangible assets | 196 | 194 |
| thereof amortization of capitalized development costs | 119 | 119 |
| Depreciation of property, plant and equipment | 112 | 319 |
| thereof depreciation of right-of-use assets | 0 | 202 |
| **Total depreciation and amortization** | **308** | **513** |

## 6 OTHER EXPENSES

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Foreign exchange rate losses | 305 | 1,757 |
| Losses from the disposal of assets | 2 | 1 |
| Other | 1 | 0 |
| **Total other expenses** | **308** | **1,758** |

## 7 OPERATING RESULT (EBIT) AND EBITDA

| EUR thousand | 2018 | 2019 |
|---|---|---|
| **Operating result/earnings before interest and taxes (EBIT)** | **-12,895** | **-14,673** |
| Total depreciation and amortization | 308 | 513 |
| **EBIT before depreciation and amortization (EBITDA)** | **-12,587** | **-14,160** |
| Share-based payment expenses | 1,151 | 873 |
| **EBITDA before share-based payment expenses** | **-11,436** | **-13,287** |

## 8 FINANCIAL RESULT

Net gains and losses on all financial instruments:

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Interest from available-for-sale financial assets | 17 | 18 |
| Interest on time deposits | 0 | 154 |
| **Interest and related income** | **17** | **172** |
| **Total financial income** | **17** | **172** |
| Other interest expenses | -550 | -63 |
| thereof from leasing contracts | 0 | -63 |
| **Interest and related expenses** | **-550** | **-63** |
| Other finance costs | -2 | -2 |
| **Total financial expenses** | **-552** | **-65** |
| **Total financial result** | **-535** | **107** |

## 9 TAXES ON INCOME

The reported taxes on income in the amount of EUR 2,454 thousand (2018: EUR -738 thousand) consist solely of taxes relating to the Company's U.S. subsidiary.

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Current tax expenses | 23 | 34 |
| Deferred tax income due to loss carryforwards | -761 | -732 |
| Valuation allowance | 0 | 3,152 |
| **Total taxes on income** | **-738** | **2,454** |

For the calculation of deferred taxes of the U.S. subsidiary, a local tax rate of 21% was applied there.

Calculation of the applicable tax rate in Germany for the purpose of deferred taxes:

| in % | 2018 | 2019 |
|---|---|---|
| Corporate income tax | 15.0 | 15.0 |
| Solidarity surcharge | 5.5 | 5.5 |
| Trade tax | 14.35 | 14.35 |
| underlying trade tax rate of assessment | 410 | 410 |
| **Total applicable tax rate in Germany for the purpose of deferred taxes** | **30.2** | **30.2** |

Tax reconciliation:

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Net loss for the year before taxes on income | -13,430 | -14,566 |
| **Expected tax income** | **4,056** | **4,399** |
| applicable tax rate for the Group | 30.2% | 30.2% |
| permanent differences | -40 | -40 |
| other foreign taxes | -23 | -34 |
| effect of foreign taxes | -348 | -415 |
| unrecognized tax loss carryforwards | -2,867 | -3,944 |
| impairment of deferred taxes assets from previous years | 0 | -2,420 |
| **Effective tax income/ expense** | **738** | **-2,454** |
| **Effective tax rate** | **5.8%** | **-16.9%** |

The expected tax income/expense for the reporting year has been calculated by applying the individual tax rates for the Group companies to the net results before taxes on income. Due to the impairment of tax assets capitalized in previous years, the effective tax rate for the reporting year is not meaningful. Permanent differences result from non-deductible expenses in accordance with German tax law.

## 10 EARNINGS PER SHARE

Earnings per share (basic) are calculated by dividing the net loss for the year by the weighted average number of shares issued. The outstanding stock options and convertible notes granted by the Company are antidilutive in accordance with IAS 33.41 and 33.43 Earnings per Share. Therefore, the earnings per share (diluted) equal the earnings per share (basic). The number of shares issued as of the balance sheet date amounted to 43,527,692 (December 31, 2018: 36,021,540).

| | 2018 | 2019 |
|---|---|---|
| Net loss for the year (in EUR thousand) | -12,692 | -17,020 |
| Weighted average number of shares issued | 27,016,155 | 37,272,565 |
| Earnings per share (basic and diluted, in EUR) | -0.47 | -0.46 |

# NOTES TO THE CONSOLIDATED BALANCE SHEET

## NON-CURRENT ASSETS

### 11 INTANGIBLE ASSETS

| EUR thousand | | Software | Licenses/ patents | Development costs | Total intangible assets |
|---|---|---|---|---|---|
| **Jan 1, 2018** | **Cost** | **410** | **1,038** | **3,653** | **5,101** |
| | Additions | 16 | 0 | 0 | 16 |
| | Disposals | 0 | 0 | -14 | -14 |
| | Currency translation | 0 | 0 | 0 | 0 |
| **Dec 31, 2018** | **Cost** | **426** | **1,038** | **3,639** | **5,103** |
| | Additions | 52 | 0 | 0 | 52 |
| | Disposals | 0 | -17 | 0 | -17 |
| | Currency translation | 0 | 0 | 0 | 0 |
| **Dec 31, 2019** | **Cost** | **478** | **1,021** | **3,639** | **5,138** |
| **Jan 1, 2018** | **Accumulated amortization** | **249** | **995** | **3,189** | **4,433** |
| | Additions | 45 | 31 | 119 | 195 |
| | Disposals | 0 | 0 | 0 | 0 |
| | Currency translation | 0 | 0 | 0 | 0 |
| **Dec 31, 2018** | **Accumulated amortization** | **294** | **1,026** | **3,308** | **4,628** |
| | Additions | 63 | 12 | 119 | 194 |
| | Disposals | 0 | -17 | 0 | -17 |
| | Currency translation | 0 | 0 | 0 | 0 |
| **Dec 31, 2019** | **Accumulated amortization** | **357** | **1,021** | **3,427** | **4,805** |
| | | | | | |
| **Dec 31, 2018** | **Carrying amounts** | **132** | **12** | **331** | **475** |
| **Dec 31, 2019** | **Carrying amounts** | **121** | **0** | **212** | **333** |

The capitalized development costs for Epi proColon and Epi proLung are assumed to have a useful life of ten years. The annual amortization for these assets amounted to EUR 111 thousand (Epi proColon) and EUR 8 thousand (Epi proLung).

## 12 PROPERTY, PLANT AND EQUIPMENT

| EUR thousand | | Fixtures/ leasehold improvements | Technical equipment | Other property, plant and equipment | Recognized right-of-use assets | Total property, plant and equipment |
|---|---|---|---|---|---|---|
| **Jan 1, 2018** | **Cost** | **566** | **1,270** | **85** | **0** | **1,921** |
| | Additions | 3 | 91 | 0 | 0 | 94 |
| | Disposals | 0 | -82 | 0 | 0 | -82 |
| | Currency translation | 0 | 2 | 1 | 0 | 3 |
| **Dec 31, 2018** | **Cost** | **569** | **1,281** | **86** | **0** | **1,936** |
| | Additions | 0 | 62 | 8 | 1,078 | 1,148 |
| | Disposals | 0 | -19 | -2 | 0 | -21 |
| | Currency translation | 0 | 1 | 1 | 0 | 2 |
| **Dec 31, 2019** | **Cost** | **569** | **1,325** | **93** | **1,078** | **3,065** |
| **Jan 1, 2018** | **Accumulated depreciation** | **183** | **979** | **39** | **0** | **1,201** |
| | Additions | 44 | 61 | 8 | 0 | 113 |
| | Disposals | 0 | -79 | 0 | 0 | -79 |
| | Currency translation | 0 | 1 | 0 | 0 | 1 |
| **Dec 31, 2018** | **Accumulated depreciation** | **227** | **962** | **47** | **0** | **1,236** |
| | Additions | 44 | 64 | 8 | 202 | 318 |
| | Disposals | 0 | -19 | -1 | 0 | -20 |
| | Currency translation | 0 | 0 | 0 | -1 | -1 |
| **Dec 31, 2019** | **Accumulated depreciation** | **271** | **1,007** | **54** | **201** | **1,533** |
| | | | | | | |
| **Dec 31, 2018** | **Carrying amounts** | **342** | **319** | **39** | **0** | **700** |
| **Dec 31, 2019** | **Carrying amounts** | **298** | **318** | **39** | **877** | **1,532** |

Subsidies received in previous years reduced the cost of individual items of property, plant and equipment. These subsidies constitute public financial assistance for businesses under the joint program for the improvement of regional economic structures (*Gemeinschaftsaufgabe "Verbesserung der regionalen Wirtschaftsstruktur"*) granted from German federal and state funds. The funding period ended on April 8, 2017. However, if certain conditions attaching to the funding are not complied with going forward, the funding sponsors may demand partial or full repayment of the subsidies in the following years. These conditions include preserving the current permanent jobs at the Company's Berlin site and the obligation to keep the subsidized assets for a period of at least five years after the end of the project at the subsidized location. The Company assumes that it will be able to fulfill all of the conditions.

The newly capitalized rights of use relate to the Group's leases for office and laboratory space at the Berlin and Seattle locations, which were recognized for the first time due to the mandatory application of IFRS 16 Leases. For initial application, use was made of the option of applying a single discount rate to a portfolio of similarly structured leases. There were no leases with residual terms of less than twelve months in the Group at the time of initial application. In accordance with the option, leases of minor value were not capitalized but instead recognized as expenses in the amount of EUR 6 thousand. Short-term leases were also not capitalized and were recognized as expenses in the amount of EUR 35 thousand.

## 13 ASSETS SCHEDULE

| EUR thousand | | Intangible assets | Property, plant and equipment | Total intangible assets and property, plant and equipment |
|---|---|---|---|---|
| **Jan 1, 2018** | **Cost** | **5,101** | **1,921** | **7,022** |
| | Additions | 16 | 94 | 110 |
| | Disposals | -14 | -82 | -96 |
| | Currency translation | 0 | 3 | 3 |
| **Dec 31, 2018** | **Cost** | **5,103** | **1,936** | **7,039** |
| | Additions | 52 | 1,148 | 1,200 |
| | Disposals | -17 | -21 | -38 |
| | Currency translation | 0 | 2 | 2 |
| **Dec 31, 2019** | **Cost** | **5,138** | **3,065** | **8,203** |
| **Jan 1, 2018** | **Accumulated depreciation and amortization** | **4,433** | **1,201** | **5,634** |
| | Additions | 195 | 113 | 308 |
| | Disposals | 0 | -79 | -79 |
| | Currency translation | 0 | 1 | 1 |
| **Dec 31, 2018** | **Accumulated depreciation and amortization** | **4,628** | **1,236** | **5,864** |
| | Additions | 194 | 318 | 512 |
| | Disposals | -17 | -20 | -37 |
| | Currency translation | 0 | -1 | -1 |
| **Dec 31, 2019** | **Accumulated depreciation and amortization** | **4,805** | **1,533** | **6,338** |
| **Dec 31, 2018** | **Carrying amounts** | **475** | **700** | **1,175** |
| **Dec 31, 2019** | **Carrying amounts** | **333** | **1,532** | **1,865** |

## 14 DEFERRED TAXES

For the Group, deferred taxes arise as described in the following table:

| | Deferred tax assets from temporary differences | | Deferred tax liabilities from temporary differences | |
|---|---|---|---|---|
| EUR thousand | **Dec 31, 2018** | **Dec 31, 2019** | **Dec 31, 2018** | **Dec 31, 2019** |
| Intangible assets and property, plant and equipment | 20 | 0 | 100 | 227 |
| Non-current liabilities | 0 | 0 | 0 | 164 |
| Current liabilities | 0 | 0 | 117 | 34 |
| **Total** | **20** | **0** | **217** | **425** |
| **Total after offsetting** | **0** | **0** | **197** | **425** |

Overview of tax loss carryforwards (2019 estimated):

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Tax loss carryforwards in Germany (corporate income tax) | 201,287 | 210,870 |
| Tax loss carryforwards in Germany (trade tax) | 199,740 | 209,290 |
| Tax loss carryforwards in the U.S.A. (corporate income tax) | 11,324 | 15,976 |
| R&D tax credits in the U.S.A. | 3,139 | 3,641 |

Reconciliation of deferred tax assets (2019 estimated):

| EUR thousand | Dec 31, 2018 | Dec 31, 2019 |
|---|---|---|
| Deferred tax assets due to German tax loss carryforwards | 60,516 | 63,424 |
| Deferred tax assets due to U.S. tax credits | 3,139 | 3,641 |
| Deferred tax assets due to U.S. tax loss carryforwards | 2,378 | 3,355 |
| **Total deferred tax assets due to tax loss carryforwards** | **66,033** | **70,420** |
| Deferred tax position (net) from temporary differences | -197 | -192 |
| **Total deferred tax assets** | **65,836** | **70,228** |
| Allowance on deferred tax assets | -63,418 | -70,228 |
| **Recognized deferred tax assets** | **2,378** | **0** |

Since all deferred tax assets and liabilities arising from temporary differences must be settled with the same tax authority that levied the taxes to which those deferred tax assets and liabilities relate, in accordance with IAS 12.71 et seq. Income Taxes, only those deferred tax assets and liabilities which relate to taxes levied by the same tax authority have been offset.

Since its founding through to December 31, 2018, the Company's tax loss carryforwards in Germany amounted to EUR 201 million for corporate income tax and to EUR 200 million for trade tax. Furthermore, the Company estimates that the accumulated tax loss carryforwards in both aforementioned tax categories will increase by more than EUR 9 million when it files its tax returns for 2019. In accordance with German tax law, such tax losses have an unlimited carryforward period. As a consequence of completed tax audits, tax loss carryforwards in the amount of EUR 167 million are undisputed. The resulting deferred tax asset is therefore sufficient to offset the aforementioned deferred tax liability from temporary differences of EUR 425 thousand as of December 31, 2019. However, a future utilization of these carryforwards could become impossible under certain conditions (e.g., a major change of ownership and a change of business) based on the applicable German tax law. Due to the current financial situation of the Company, without sufficient liquidity to achieve the break-even point, valuation allowances have been recognized for the calculated exceeding amount of deferred tax assets at the balance sheet date.

The temporary differences connected with shares in subsidiaries, for which no deferred tax assets had been recognized in the reporting periods presented, totaled EUR 16,137 thousand (2018: EUR 9,082 thousand).

In the prior periods, the Company recognized deferred tax assets in connection with tax loss carryforwards of Epigenomics, Inc. and temporary differences between IFRSs and U.S. tax law, since in accordance with the Company's business plans it was viewed as highly likely that the Company would use the tax loss carryforwards of Epigenomics, Inc. in subsequent years, as of the respective reporting dates. The Company continues to consider it realistic that the loss carryforwards will be utilized going forward. Further delays in the reimbursement decision for Epi proColon in the U.S.A. meant that the loss carryforwards continued to accumulate in 2019. However, taking into additional consideration the expected duration of the administrative procedure at the healthcare authorities in the U.S.A. (CMS) and the Company's adjusted business planning, the Company has postponed until future years the date on which it expects an initial opportunity for use. Against this backdrop and in line with the requirements of the IFRSs, the Company has concluded that continuing to recognize its tax assets in the U.S.A. would not be compliant with the standards. The deferred tax assets recognized to date were therefore written off in the reporting period.

The R&D tax credits in the U.S.A. expire on various dates beginning in 2022 through to 2038.

Changes in recognized deferred tax assets in the reporting year:

| EUR thousand | 2018 | 2019 |
|---|---|---|
| **January 1** | **1,526** | **2,378** |
| Deferred tax income | 761 | 732 |
| Allowance | 0 | -3,152 |
| Foreign currency adjustments | 91 | 42 |
| **December 31** | **2,378** | **0** |

## CURRENT ASSETS

### 15 INVENTORIES

| EUR thousand | Dec 31, 2018 | Dec 31, 2019 |
|---|---|---|
| Consumables, raw materials, supplies | 123 | 42 |
| Semi-finished goods | 84 | 47 |
| Finished goods | 157 | 224 |
| **Total inventories** | **364** | **313** |

The cost of inventories recognized as R&D costs through profit or loss in 2019 amounted to EUR 352 thousand (2018: EUR 96 thousand) and was attributable to write-offs of finished goods due to the determination of an unlikelihood that these goods could have been sold before the end of their shelf lives or because their shelf lives had already expired.

## 16 TRADE RECEIVABLES

Trade receivables primarily include receivables from development partners, customers and licensees. These receivables do not bear interest and are therefore not exposed to any interest rate risk. The carrying amounts of the receivables correspond to their fair values. The maximum default risk corresponded to the carrying amount as of the balance sheet date.

| EUR thousand | Dec 31, 2018 | Dec 31, 2019 |
|---|---|---|
| Trade receivables | 164 | 89 |
| thereof not yet due | 122 | 21 |
| thereof past due (up to 90 days) | 9 | 19 |
| thereof not yet invoiced (assets from contractual relationships) | 33 | 49 |

No allowances for doubtful accounts had been recognized as of the balance sheet date.

## 17 MARKETABLE SECURITIES

The marketable securities in the amount of EUR 880 thousand as of December 31, 2019 (December 31, 2018: EUR 653 thousand) are so-called "Trust-preferred Securities" issued by a wholly owned subsidiary of Deutsche Bank AG. At the issuer's discretion, they are redeemable at any time in one payment. In prior periods they had been held as "available-for-sale" financial instruments in accordance with IAS 39.9 Financial Instruments: Recognition and Measurement. Since the Company does not intend to trade them, they are classified as measured at fair value through other comprehensive income.

The reported securities are denominated in euros and are subject to the usual market and interest risks. The interest rate risks are price risks and interest rate cash flow risks. The fair value of the marketable securities is identified by their stock exchange quotations at each relevant balance sheet date. The securities were traded on active markets in the reporting year.

## 18 CASH AND CASH EQUIVALENTS

Cash and cash equivalents decreased to EUR 10,155 thousand as of the balance sheet date (December 31, 2018: EUR 16,487 thousand). 70.5% of those funds was denominated in euros at the balance sheet date, with the remainder denominated in U.S. dollars. The total amount was deposited in current accounts at three different banks.

At the balance sheet date, an amount of EUR 86 thousand of bank deposits was restricted cash.

## 19 OTHER CURRENT ASSETS

| EUR thousand | Dec 31, 2018 | Dec 31, 2019 |
|---|---|---|
| Prepaid expenses | 338 | 268 |
| Receivables from tax authorities | 197 | 294 |
| Claims under insurance contracts | 1 | 78 |
| Interest receivables | 9 | 12 |
| Claims from grant projects | 1 | 0 |
| Other | 60 | 34 |
| **Total other current assets** | **606** | **686** |

# EQUITY

## 20 SHARE CATEGORIES AND CAPITAL STRUCTURE

As of December 31, 2019, the share capital of Epigenomics AG consisted exclusively of non-par value ordinary registered shares with equal rights.

Equity structure of the Company as of the balance sheet date:

| EUR | Dec 31, 2018 | Dec 31, 2019 |
|---|---|---|
| **Subscribed capital** | **36,021,540** | **43,527,692** |
| **Authorized Capital** | **0** | **10,504,618** |
| Authorized Capital 2019/I | 0 | 3,602,154 |
| Authorized Capital 2019/II | 0 | 6,902,464 |
| **Conditional Capital** | **12,007,180** | **17,989,705** |
| Conditional Capital VII | 21,065 | 0 |
| Conditional Capital IX | 521,095 | 521,095 |
| Conditional Capital X | 9,465,020 | 14,468,610 |
| Conditional Capital XI | 1,000,000 | 1,000,000 |
| Conditional Capital XII | 1,000,000 | 1,000,000 |
| Conditional Capital XIII | 0 | 1,000,000 |

By a resolution of the Annual General Shareholders' Meeting of the Company dated May 15, 2019, Authorized Capital 2019/I and Authorized Capital 2019/II were newly created.

Subscribed capital increased by 7,506,152 shares or EUR 7,506,152 in November 2019 by way of partial use of Authorized Capital 2019/II as part of a capital increase through issuing new shares with subscription rights for existing shareholders.

*Authorized Capital 2019/I*

The Executive Board is authorized until May 14, 2024 to increase with the consent of the Supervisory Board the share capital of the Company once or several times by up to a total of EUR 3,602,154.00 against contribution in cash and/or in kind by issuing new non-par value registered shares (Authorized Capital 2019/I). The subscription rights shall be granted to the shareholders. The new shares can also be subscribed by one or more credit institutions or companies acting according to Section 53 Paragraph 1 Sentence 1 or Section 53b Paragraph 1 Sentence 1 or Paragraph 7 of the German Banking Act (KWG) under the obligation to offer the shares to the shareholders for subscription (indirect subscription right). The Executive Board is, however, authorized to exclude, with the consent of the Supervisory Board, the shareholders' statutory subscription rights in the following events:

- for fractional amounts;
- if the new shares are issued according to Section 186 Paragraph 3 Sentence 4 AktG against contribution in cash at an issue price which is not significantly below the stock exchange price of the shares already listed, and the pro rata notional portion of the share capital represented by the new shares does not exceed ten per cent (10 %) of the share capital at the time this authorization is registered with the commercial register, or, if lower, at the respective time when the authorization is exercised. Other shares which have been newly issued by the Company by way of a capital increase against contribution in cash during the term of this authorization pursuant to Section 186 Paragraph 3 Sentence 4 AktG or Section 203 in connection with Section 186 Paragraph 3 Sentence 4 AktG, or which have been sold following a repurchase, in each case under exclusion of subscription rights, shall be counted towards the 10 % limitation. Furthermore, shares for which there is an option or conversion right or obligation, or a share delivery right in favor of the Company, based on bonds with warrants or convertible bonds or participation rights that have been issued during the term of this authorization under exclusion of subscription rights pursuant to Section 221 Paragraph 4 Sentence 2 in conjunction with Section 186 Paragraph 3 Sentence 4 AktG by the Company or a Group company of the Company within the meaning of Section 18 AktG, in which the Company has a direct and/or indirect holding of at least 90 %, shall be counted towards the 10 % limitation;
- to the extent necessary to grant subscription rights for new shares to holders or creditors of option rights or creditors of convertible bonds or participation rights issued by the Company or a Group company of the Company within the meaning of Section 18 AktG, in which the Company has a direct and/or indirect holding of at least 90 %, in the amount in which they would be entitled thereto upon the exercise of the option or conversion rights or the exercise of share delivery rights, or fulfillment of option or conversion obligations.

The Executive Board is further authorized to determine, with the consent of the Supervisory Board, the dividend rights of the new shares in deviation from Section 60 Paragraph 2 AktG as well as the further details of the implementation of capital increases from Authorized Capital 2019/I. The Supervisory Board is authorized to amend the wording of the Articles of Association, as appropriate, after implementation of a share capital increase from Authorized Capital 2019/I in accordance with the respective share capital increase or after expiry of the term of the authorization.

### *Authorized Capital 2019/II*

The Executive Board is authorized until May 14, 2024 to increase with the consent of the Supervisory Board the share capital of the Company once or several times by up to a total of EUR 14,408,616.00 against contribution in cash by issuing new non-par value registered shares (Authorized Capital 2019/II). The subscription rights shall be granted to the shareholders. The Company shall organize a stock exchange trading of the subscription rights. The new shares can also be subscribed by one or more credit institutions or companies acting according to Section 53 Paragraph 1 Sentence 1 or Section 53b Paragraph 1 Sentence 1 or Paragraph 7 of the German Banking Act (KWG) under the obligation to offer the shares to the shareholders for subscription (indirect subscription right). The Executive Board is, however, authorized to exclude, with the consent of the Supervisory Board, the shareholders' statutory subscription rights for fractional amounts. The Executive Board is further authorized to determine, with the consent of the Supervisory Board, the dividend rights of the new shares in deviation from Section 60 Paragraph 2 AktG as well as the further details of the implementation of capital increases from Authorized Capital 2019/II. The Supervisory Board is authorized to amend the wording of the Articles of Association, as appropriate, after implementation of a share capital increase from Authorized Capital 2019/II in accordance with the respective share capital increase or after expiry of the term of the authorization.

In the reporting year, 7,506,152 new registered shares were issued from Authorized Capital 2019/II. This means that a further 6,902,464 new shares can be issued on the basis of this capital until May 14, 2024.

### *Conditional Capital IX*

The share capital is conditionally increased by up to EUR 521,095.00 by means of issuing up to 521,095 new non-par value registered shares (Conditional Capital IX). The conditional capital increase serves to grant shares to the holders or creditors of bonds or participation rights, such shares being issued by the Company, or a Group company within the meaning of section 18 AktG, in which the Company directly and/or indirectly holds an interest of at least 90%, until May 14, 2024 on the basis of the authorization resolution of the General Shareholders' Meeting dated May 15, 2019 if option or conversion rights are exercised, if option or conversion obligations are performed or if the Company exercises its optional right to deliver shares of the Company instead of payment of the cash amount due (or parts thereof). The new shares are issued at the respective option or conversion price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is only to be implemented if bonds or participation rights are issued in accordance with the authorization resolution of the General Shareholders' Meeting dated May 15, 2019, and only to the extent that

- option or conversion rights are exercised or
- holders or creditors of bonds or participation rights who are under an obligation to exercise an option or under a conversion obligation perform their obligation to exercise the option or their conversion obligation or
- the Company exercises its optional right to deliver shares of the Company instead of paying the cash amount due (or parts thereof)

and to the extent that no cash settlement is granted and no shares from an authorized capital, treasury shares or shares of another listed company are delivered. The new shares issued carry dividend rights from the beginning of the fiscal year in which they are issued. The Executive Board is authorized, as far as legally permissible and with the consent of the Supervisory Board, to determine that, if no resolution on the appropriation of net profit for the fiscal year immediately preceding the year of issue of the new shares has been adopted when the new shares are issued, the new shares shall carry dividend rights from the beginning of the fiscal year immediately preceding the year of issue.

The Executive Board is also authorized, with the consent of the Supervisory Board, to determine the further details concerning the implementation of the conditional capital increase.

### *Conditional Capital X*

The share capital is conditionally increased by up to EUR 14,468,610.00 by means of issuing up to 14,468,610 new non-par value registered shares (Conditional Capital X). The conditional capital increase serves to grant shares to the holders or creditors of bonds or participation rights issued by the Company, or a consolidated subsidiary in which the Company directly and/or indirectly holds an interest of at least a 90%, until May 14, 2024 on the basis of the authorization resolution of the General Shareholders' Meeting dated May 15, 2019 if option or conversion rights are exercised on bonds or participation rights, if option or conversion obligations are performed or if the Company exercises its optional right to deliver shares of the Company instead of payment of the cash amount due (or parts thereof). The new shares are issued at the respective option or conversion price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is only to be implemented if bonds or participation rights are issued in accordance with the authorization resolution of the General Shareholders' Meeting dated May 15, 2019, and only to the extent that

- option or conversion rights are exercised or
- holders or creditors of bonds or participation rights who are under an obligation to exercise an option or under a conversion obligation perform their obligation to exercise the option or their conversion obligation or
- the Company exercises its optional right to deliver shares of the Company instead of paying the cash amount due (or parts thereof)

and to the extent that no cash settlement is granted and no shares from an authorized capital, treasury shares or shares of another listed company are delivered. The new shares issued carry dividend rights from the beginning of the fiscal year in which they are issued. The Executive Board is authorized, as far as legally permissible and with the consent of the Supervisory Board, to determine that, if no resolution on the appropriation of net profit for the fiscal year immediately preceding the year of issue of the new shares has been adopted when the new shares are issued, the new shares shall carry dividend rights from the beginning of the fiscal year immediately preceding the year of issue.

The Executive Board is also authorized, with the consent of the Supervisory Board, to determine the further details concerning the implementation of the conditional capital increase.

In the reporting year, no shares have been issued from Conditional Capital X.

### *Conditional Capital XI*

The share capital is conditionally increased by up to EUR 1,000,000.00 by means of issuing up to 1,000,000 new non-par value registered shares (Conditional Capital XI). The conditional capital increase serves to grant or issue shares to members of the Executive Board of the Company, to members of the management of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG and to employees of the Company and of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG who exercise the subscription rights they were granted prior to the end of April 30, 2018 pursuant to the authorization resolution of the General Shareholders' Meeting dated May 25, 2016 (Stock Option Program 16–18). The new shares are issued against payment by the beneficiary to the Company of the respective exercise price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is to be implemented only if subscription rights are issued in accordance with the authorization resolution on the Company's Stock Option Program 16–18 by the General Shareholders' Meeting dated May 25, 2016 and only to the extent that the holders of these subscription rights exercise them and the Company does not grant any treasury shares or cash compensation to fulfill these subscription rights.

The new shares issued carry dividend rights from the beginning of the fiscal year in which they are created. The Executive Board may determine, as far as legally permissible and with the consent of the Supervisory Board, that, if no resolution on the appropriation of net profit for the fiscal year immediately preceding the year of issue of the new shares has been adopted when the new shares are issued, the new shares shall be entitled to dividends from the beginning of the fiscal year immediately preceding the year of issue; if the new shares are issued to members of the Executive Board, the Supervisory Board is authorized to do so.

Between 2016 and 2018 the maximum permitted number of share options were issued based on Conditional Capital XI. In accordance with the terms and conditions of the stock option program, no new shares can be created upon exercise of these stock options before October 2020.

### *Conditional Capital XII*

The share capital is conditionally increased by up to EUR 1,000,000.00 by means of issuing up to 1,000,000 new non-par value registered shares (Conditional Capital XII). The conditional capital increase serves to grant or issue shares to members of the Executive Board of the Company, to members of the management of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG and to employees of the Company and of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG who exercise the subscription rights they were granted prior to the end of April 30, 2019 pursuant to the authorization resolution of the General Shareholders' Meeting dated May 30, 2017 (Stock Option Program 17–19). The new shares are issued against payment by the beneficiary to the Company of the respective exercise price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is to be implemented only if subscription rights are issued in accordance with the authorization resolution on the Company's Stock Option Program 17–19 by the General Shareholders' Meeting dated May 30, 2017 and only to the extent that the holders of these subscription rights exercise them and the Company does not grant any treasury shares or cash compensation to fulfill these subscription rights.

The new shares issued carry dividend rights from the beginning of the fiscal year in which they are created. The Executive Board may determine, as far as legally permissible and with the consent of the Supervisory Board, that, if no resolution on the appropriation of net profit for the fiscal year immediately preceding the year of issue of the new shares has been adopted when the new shares are issued, the new shares shall be entitled to dividends from the beginning of the fiscal year immediately preceding the year of issue; if the new shares are issued to members of the Executive Board, the Supervisory Board is authorized to do so.

Between 2017 and 2019 the maximum permitted number of share options were issued based on Conditional Capital XII. In accordance with the terms and conditions of the stock option program, no new shares can be created upon exercise of these stock options before April 2022.

### *Conditional Capital XIII*

The share capital is conditionally increased by up to EUR 1,000,000.00 by means of issuing up to 1,000,000 new non-par value registered shares (Conditional Capital XIII). The conditional capital increase serves to grant or issue shares to members of the Executive Board of the Company, to members of the management of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG and to employees of the Company and of domestic and foreign dependent companies of the Company as defined in sections 15 and 17 AktG who exercise the subscription rights they were granted prior to the end of May 31, 2021 pursuant to the authorization resolution of the General Shareholders' Meeting dated May 15, 2019 (Stock Option Program 19–21). The new shares are issued against payment by the beneficiary to the Company of the respective exercise price to be determined in accordance with the aforementioned authorization resolution.

The conditional capital increase is to be implemented only if subscription rights are issued in accordance with the authorization resolution on the Company's Stock Option Program 19–21 by the General Shareholders' Meeting dated May 15, 2019 and only to the extent that the holders of these subscription rights exercise them and the Company does not grant any treasury shares or cash compensation to fulfill these subscription rights.

The new shares issued carry dividend rights from the beginning of the fiscal year in which they are created. The Executive Board may determine, as far as legally permissible and with the consent of the Supervisory Board, that, if no resolution on the appropriation of net profit for the fiscal year immediately preceding the year of issue of the new shares has been adopted when the new shares are issued, the new shares shall be entitled to dividends from the beginning of the fiscal year immediately preceding the year of issue; if the new shares are issued to members of the Executive Board, the Supervisory Board is authorized to do so.

The Supervisory Board is also authorized to determine the further details concerning the implementation of the conditional capital increase where the granting of subscription rights to members of the Executive Board is concerned. In all other cases, the Executive Board is authorized to determine such details.

No stock options had yet been granted on the basis of Conditional Capital XIII in 2019.

## 21 CAPITAL RESERVE

The capital reserve comprises the premiums arising on the issuance of shares and the expenses relating to the issuance of shares, as well as expenses from the issue of stock options to Executive Board and staff members. The capital reserve increased in total from EUR 68,802 thousand as of December 31, 2018 to EUR 69,251 thousand as of December 31, 2019. An increase of EUR 826 thousand was attributable to the capital increase in the November of the reporting period through issuing new shares from authorized capital. At the same time, however, the reserve amount was reduced by EUR 1,250 thousand due to the costs of creating the new shares in this transaction. An increase of EUR 873 thousand was attributable to the issuance of stock options to Executive Board and staff members (2018: EUR 1,151 thousand).

## 22 RETAINED EARNINGS

Retained earnings decreased from EUR -73,115 thousand as of December 31, 2018, to EUR -85,807 thousand as of December 31, 2019 due to the transfer of the Company's net loss for 2018.

## 23 OTHER COMPREHENSIVE INCOME

The other comprehensive income includes unrealized gains and/or losses on marketable securities and exchange rate differences from the remeasurement of the results and the financial position of the Company's subsidiary whose financial statements were prepared in U.S. dollars. The actual disposal of remeasured financial assets and/or liabilities leads to a recognition of the cumulated revaluation differences through profit or loss.

| EUR thousand | Dec 31, 2018 | Dec 31, 2019 |
|---|---|---|
| **January 1** | **169** | **-404** |
| Remeasurement of marketable securities | -252 | 228 |
| Exchange rate differences | -321 | -147 |
| **December 31** | **-404** | **-323** |

## 24 CAPITAL MANAGEMENT

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximizing the long-term return to stakeholders. An optimization of the debt/equity ratio is always considered.

The current liabilities, cash and cash equivalents, the marketable securities and equity attributable to equity holders, comprising subscribed capital, capital reserve (including offset retained earnings) and other comprehensive income are subject to the Group's capital management.

In the reporting period, the Group's equity ratio declined from 85.3% as of December 31, 2018 to 68.8% as of December 31, 2019.

The Company is not subject to any statutory capital requirements. However, the Company is obliged to issue new shares in connection with granted option rights from its existing stock option programs.

## LIABILITIES

## 25 PROVISIONS

Statement of changes in provisions:

| EUR thousand | Contract-related provisions | Payroll provisions | Provisions for claims from phantom stock rights | Other provisions | Total |
|---|---|---|---|---|---|
| **Jan. 1, 2018** | **50** | **385** | **647** | **64** | **1,146** |
| thereof non-current | 0 | 0 | 0 | 43 | 43 |
| Utilizations | 0 | -382 | -73 | -21 | -476 |
| Reversals | 0 | 0 | -554 | 0 | -554 |
| Additions | 0 | 876 | 0 | 17 | 893 |
| **Dec 31, 2018** | **50** | **879** | **20** | **60** | **1,009** |
| thereof non-current | 0 | 0 | 0 | 47 | 47 |
| Utilizations | 0 | -879 | 0 | -11 | -890 |
| Reversals | -50 | -19 | -20 | -8 | -97 |
| Additions | 0 | 84 | 0 | 538 | 622 |
| **Dec 31, 2019** | **0** | **65** | **0** | **579** | **644** |
| thereof non-current | 0 | 0 | 0 | 44 | 44 |

Payroll provisions were recognized for obligations from bonus commitments to management and employees of the Company. These provisions may in individual cases also be utilized beyond a twelve-month time frame.

Provisions for claims from phantom stock rights (PSRs) were recognized based on the fair value of all issued and outstanding rights resulting from the Company's phantom stock programs (PSPs).

Other provisions were recognized for various operating obligations which were uncertain as of the reporting date with respect to their exact amounts and/or timing. A utilization of both of these categories of provisions is largely expected within the next twelve months.

## 26 TRADE PAYABLES

The reported trade payables in the amount of EUR 1,430 thousand as of the balance sheet date (December 31, 2018: EUR 1,411 thousand) are all non-interest-bearing. The total amount comprises exclusively non-derivative financial liabilities that are due in full within two months following the reporting date.

## 27 OTHER LIABILITIES

| EUR thousand | Dec 31, 2018 | Dec 31, 2019 |
|---|---|---|
| Payables due to staff | 512 | 1,089 |
| Accrued audit fees | 127 | 127 |
| Payables due to tax authorities | 100 | 69 |
| Deferred income | 27 | 46 |
| Payables to Supervisory Board members | 0 | 31 |
| Other | 5 | 6 |
| **Total other liabilities** | **771** | **1,368** |

The reported other liabilities are exclusively non-interest-bearing. They comprise non-derivative financial liabilities amounting to EUR 851 thousand that are due exclusively within two months following the reporting date.

## 28 MATURITIES OF FINANCIAL LIABILITIES

The following table showing the maturities of the Company's financial liabilities is based on undiscounted contractually agreed cash flows as of December 31, 2019.

| EUR thousand | up to 3 months | 3 to 12 months | 1 to 5 years | over 5 years | Total |
|---|---|---|---|---|---|
| Trade payables | 1,430 | 0 | 0 | 0 | 1,430 |
| Liabilities from leasing contracts | 67 | 204 | 631 | 167 | 1,069 |
| Other financial liabilities | 804 | 0 | 0 | 0 | 804 |
| **Total** | **2,301** | **204** | **631** | **167** | **3,303** |

# 29 FINANCIAL INSTRUMENTS AND FINANCIAL LIABILITIES FROM FINANCING ACTIVITIES

## Primary financial instruments

| EUR thousand | Measure-ment principle | Fair value hierarchy level | as of Dec 31, 2018 Carrying amount | as of Dec 31, 2018 Fair value | as of Dec 31, 2019 Carrying amount | as of Dec 31, 2019 Fair value |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Marketable securities | FVOCI | 1 | 653 | 653 | 880 | 880 |
| Cash and cash equivalents | AK | | 16,487 | 16,487 | 10,155 | 10,155 |

AC = measured at amortized cost
FVOCI = measured at fair value through other comprehensive income

## Net liabilities from financing activities

| EUR thousand | Note | Jan 1, 2019 | Non-cash changes: Cash flows | Non-cash changes: Offset against equity | Non-cash changes: Recognized in profit or loss | Non-cash changes: Other changes | Dec 31, 2019 |
|---|---|---|---|---|---|---|---|
| Prepayments for financing projects | 19 | 0 | 0 | 0 | 0 | 0 | 0 |
| Trade payables | 26 | 171 | -171 | 431 | 0 | 0 | 431 |
| Non-current liabilities from leasing contracts | 28 | 0 | 0 | 0 | 0 | 697 | 697 |
| Current liabilities from leasing contracts | 28 | 0 | -290 | 0 | -264 | 773 | 216 |
| **Net liabilities from financing activities** | | **171** | **-461** | **431** | **-264** | **1,470** | **1,344** |

# NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

Cash consists of bank deposits and cash in hand. Cash equivalents are defined as instruments convertible to a known amount of cash on a short-term basis and carrying a very low risk of changes in value. As of the balance sheet date, the Company's cash and cash equivalents balance sheet item comprised exclusively cash. For the cash flow consolidation of the U.S. subsidiary, the operating assets and liabilities (excluding cash and cash equivalents) were translated at the average monthly exchange rates.

## 30 OPERATING ACTIVITIES

Cash flow from operating activities is derived indirectly on the basis of the net profit/loss for the year.

## 31 INVESTING ACTIVITIES

Cash flow from investing activities is calculated based on actual payments.

Proceeds from investment grants received of EUR 0 thousand (2018: EUR 813 thousand) were used for the development of fixed assets.

## 32 FINANCING ACTIVITIES

Cash flow from financing activities is calculated based on actual payments.

Gross proceeds from the issue of new shares in the amount of EUR 8,332 thousand in the reporting year (2018: EUR 21,253 thousand) related to the Company's capital increase from authorized capital in 2019. The cash outflow from financing activities amounted to EUR 983 thousand in 2019 (2018: EUR 1,959 thousand) and related mainly to the above-mentioned capital increase. EUR 229 thousand was paid out for leases (2018: EUR 0).

## 33 CASH CONSUMPTION

Cash flow from operating activities and cash flow from investing activities less transactions in securities is monitored by the Company as "cash consumption".

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Cash flow from operating activities | -10,351 | -13,506 |
| Cash flow from investing activities | 724 | 47 |
| Net proceeds from transactions in securities | 0 | 0 |
| **Cash consumption** | **-9,627** | **-13,459** |

# RISKS AND RISK MANAGEMENT

## 34 GENERAL

For a comprehensive overview of the risks the Company is facing, please refer to the "Report on opportunities and risks" section of the Group management report 2019 and to the securities prospectus for the offering of new shares as part of the capital increase carried out by the Company in November 2019. The prospectus is available on the website of Epigenomics AG at https://www.epigenomics.com/capital-increase-2019/.

## 35 LIQUIDITY RISK

The liquidity risk to which Epigenomics is exposed results from the Group's potential inability to meet its financial liabilities, i.e., not being able to pay its suppliers, creditors or lenders. It is therefore the task of cash and liquidity management to ensure the individual Group companies' liquidity at any time. The expected cash inflows and outflows are constantly monitored to ensure short-term liquidity. These activities are supported by internal cash forecasts and a corresponding strategy of managing time deposits with the Company's principal banks.

Furthermore, Epigenomics constantly monitors the capital markets and – if required – makes all necessary efforts to raise fresh capital in order to avoid illiquidity.

Epigenomics has strict cost management in place to avoid unnecessary spending. On the procurement side, the Company always tries to reduce purchase prices by closing favorable contracts and negotiating all relevant conditions and takes advantage of granted terms of payment.

## 36 FOREIGN CURRENCY EXCHANGE RISK

The Group executes transactions denominated in foreign currencies and is therefore exposed to the risk of exchange rate fluctuations. This risk is due on the one hand to the fact that the German parent company purchases some goods and services in U.S. dollars. On the other hand, Epigenomics markets its primary product – Epi proColon – in the U.S.A., and revenue is generated by the Group's U.S. subsidiary, Epigenomics, Inc., in U.S. dollars, while the kits are manufactured and billed to the contract manufacturer primarily in euros. This leads to an increased foreign currency exchange (FX) risk for the Group. This risk is reduced by utilizing the proceeds generated in U.S. dollars to finance the operating business activities of Epigenomics, Inc. (e.g., to purchase goods and services). With regard to U.S. dollar amounts in excess of the U.S. subsidiary's mid- to long-term cash requirements, the Group will constantly try to mitigate or to eliminate the remaining risk as far as possible, for example through the use of derivative financial instruments (e.g., forward contracts) to minimize this risk. As of the balance sheet date, there was only a very limited number and volume of items denominated in foreign currencies other than the U.S. dollar.

The following table shows the carrying amounts of the Group's foreign currency denominated monetary assets and liabilities:

| **Primary financial instruments** | **Dec 31, 2018** | | | **Dec 31, 2019** | | |
|---|---|---|---|---|---|---|
| EUR thousand | Total, | hereof in USD | in % | Total, | hereof in USD | in % |
| Trade receivables | 164 | 130 | 79,6 | 89 | 78 | 88,2 |
| Marketable securities | 653 | 0 | 0,0 | 880 | 0 | 0,0 |
| Cash and cash equivalents | 16,487 | 163 | 1,0 | 10,155 | 3,099 | 30,5 |
| Other current assets | 71 | 39 | 54,9 | 124 | 21 | 16,6 |
| Non-current lease liabilities | 0 | 0 | 0,0 | -696 | -154 | 22,1 |
| Trade payables | -1,411 | -820 | 58,1 | -1,430 | -717 | 50,2 |
| Current lease liabilities | 0 | 0 | 0,0 | -216 | -141 | 65,4 |
| Other current liabilities | -267 | -28 | 10,5 | -1,126 | -247 | 21,9 |
| **Total net position** | **15,695** | **-515** | **-3,3** | **7,779** | **1,939** | **24,9** |
| thereof in third currencies | 0 | | | | | |

The sensitivity of the Group's net result and of shareholders' equity to foreign currency exchange rate fluctuations is shown in the table below:

| **Scenario** | | | |
|---|---|---|---|
| EUR thousand | Impact on | **2018** | **2019** |
| 10% increase in the EUR/USD rate | Total comprehensive income | 41 | -157 |
| | Equity | 749 | 1,425 |
| 10% decrease in the EUR/USD rate | Total comprehensive income | -50 | 192 |
| | Equity | -916 | -1,741 |

The table shows a stronger impact of exchange rate fluctuations on equity in the reporting year than in fiscal year 2018. This is mainly attributable to a significant increase in cash held in U.S. dollars in the balance sheet.

## 37 CREDIT RISK

Credit risk is the risk that a counterparty will fail to meet its obligations under a financial instrument or customer contract, resulting in a financial loss. The Company is routinely exposed to credit risk arising in its business and investment activities. It also affects deposits at banks and other financial institutions, and other financial instruments.

The Company holds its liquid assets at three different banks, thereby reducing the credit risk with respect to bank deposits.

Securities have only been acquired under careful adherence to the Company's investment policy, i.e., a strict selection by the credit ratings of the issuers has been conducted. However, the global financial crises in recent years have shown that even top-rated issuers can suddenly find themselves in a precarious situation or even facing collapse. Additionally, it has become clear that there is a constant risk of illiquid markets.

Customer-related credit risk is managed both centrally and at the level of the respective Group entity responsible for managing the relevant customer relationships. Monitoring covers receivables outstanding from customers and the order volume. The Group currently assesses risk concentrations in relation to trade receivables and receivables due under contracts as low, since on the one hand these are mainly due from well-known business partners with impeccable credit ratings, and on the other only immaterial volumes are due from small clients (primarily laboratories, clinics and universities). Whenever possible, payments are collected upfront. The Company maintains a long-standing, good contractual relationship with its major partners. It obtains collateral from its customers in specific cases.

To estimate potential credit losses, trade receivables and open order backlogs are grouped together according to common credit risk characteristics (e.g., existing default in days).

The expected rates of loss are based on customers' payment profiles, as measured by sales over a period of at least 12 months before the end of each reporting period and the corresponding historical credit losses that have arisen during that period. Historical rates of loss are adjusted where necessary to reflect current and forward-looking information about macroeconomic factors affecting customers' ability to pay debts as they fall due. Based on these criteria, the Company's customer base exhibits extremely low credit risk and the Company assumes that the economic situation in the U.S.A., China and Europe will remain robust, particularly with regard to the healthcare sector. The expected default rate for trade receivables and contract assets currently amounts to 0%.

## 38 INTEREST RATE RISK

The Group holds interest-bearing financial instruments only in the form of marketable securities.

Given the historically low interest rates on the international capital markets, the Group is currently not exposed to any interest rate risks from its cash and cash equivalents item.

# INFORMATION ON SHARE-BASED PAYMENT PLANS

## 39 DESCRIPTION OF STOCK OPTION PROGRAMS

As of the balance sheet date, the Company had the following stock option programs (SOPs) in place:

Both the SOP 09–13 and SOP 11–15 programs have expired. Stock options can no longer be granted from these programs or from SOP 16–17 and SOP 17–19.

On May 25, 2016, the General Shareholders' Meeting resolved to implement a new stock option program (SOP 16–18) based on the new Conditional Capital XI (see also note 20 "Share Categories and Capital Structure"). Under this program, the Executive Board and the Supervisory Board of the Company were authorized, until the end of April 30, 2018, to issue stock options in accordance with the provisions set forth below to members of the Executive Board and to employees of the Company as well as to members of the management and to employees of domestic and foreign dependent companies of the Company provided that each stock option so issued entitles the beneficiary to subscribe for one non-par value registered share of the Company. Under this authorization, the Executive Board and the Supervisory Board have issued the maximum number of stock options, a total of 1,000,000, which entitle the beneficiaries to subscribe for no more than 1,000,000 non-par value registered shares of the Company.

The beneficiaries were the members of the Executive Board of the Company (group 1), the employees of the Company (group 2), the members of the management of subordinated Group companies (group 3) and the employees of subordinated Group companies (group 4).

The subscription rights may only be exercised outside the blackout periods. Blackout periods means the periods between the end of the fiscal year and the publication of the annual report and the consolidated financial statements for the respective fiscal year, and between the end of the first, second and third quarters of a fiscal year and the publication of a quarterly report or a quarterly announcement of the Company for the respective quarter.

A quarter of the subscription rights in every tranche shall vest for the beneficiaries one year, two years, three years and four years, respectively, after the issue date of the respective tranche. In deviation from the above provision, the Supervisory Board may declare full or partial vesting of subscription rights issued in one tranche in favor of any one or all group 1 beneficiaries, and the Executive Board may with the consent of the Supervisory Board declare full or partial vesting of subscription rights issued in one tranche in favor of any one or all group 2 to 4 beneficiaries, at any time after the issue date of the respective tranche. In this case, the subscription rights shall be deemed vested upon receipt by the respective beneficiary of the corresponding declaration by the Executive Board or the Supervisory Board.

Subscription rights of each tranche can be exercised for the first time after their vesting and after expiration of the waiting period. The waiting period ends four years after the issue date of the tranche. The restriction of the exercise of the subscription rights to certain exercise periods and subject to compliance with all exercise conditions shall remain unaffected by the expiration of the waiting period.

The term of the subscription rights of every tranche starts on the issue date of the subscription rights and ends seven years after such issue date. Subscription rights that have not been exercised by the end of their term shall expire without compensation. This shall also apply where the non-exercise of the subscription rights is attributable to the fact that they could not be exercised, and shall also apply to vested subscription rights.

The subscription rights can only be exercised against payment of the exercise price to the Company. The exercise price for a subscription right of the respective tranche equals the non-volume weighted average stock exchange closing price of the shares of the Company on the ten stock exchange trading days preceding the issue date of the tranche in the electronic trading system of the Frankfurt Stock Exchange plus 10%.

After vesting has occurred and after the waiting period has expired, subscription rights may be exercised only if the closing stock exchange price of the shares of the Company in the electronic trading system of the Frankfurt Stock Exchange has exceeded the original price by at least 10% on at least one trading day in the period between the issue date of the tranche and the expiration of the waiting period (performance target). If the performance target has not been reached upon expiration of the waiting period, the subscription rights shall expire without compensation.

Any subscription rights of a beneficiary that have not yet vested shall expire without compensation upon termination of the service or employment contract between the beneficiary and the Company (or a subordinated Group company) if the service or employment contract has been terminated by the beneficiary, or by the Company (or the respective subordinated Group company) for cause. This shall not apply to any termination by group 1 or group 3 beneficiaries on account of a vote of no confidence by the General Shareholders' Meeting. Subscription rights of a beneficiary that have vested but have not yet been exercised or could not yet be exercised by the respective beneficiary shall expire without compensation upon termination of the service or employment contract between the beneficiary and the Company (or a subordinated Group company) if the service or employment contract has been terminated by the Company (or the respective subordinated Group company) for cause. This shall not apply to any termination by group 1 or group 3 beneficiaries on account of a vote of no confidence by the General Shareholders' Meeting.

The Executive Board or, in the case of group 1 beneficiaries, the Supervisory Board, may reserve the right to fulfill subscription rights that have been validly exercised by paying to the beneficiary compensation in cash instead of delivering any newly issued or previously acquired treasury shares of the Company. Such cash compensation shall equal the difference between the exercise price and the closing price of the shares of the Company last determined in the electronic trading system of the Frankfurt Stock Exchange before the exercise of the subscription right. However, the Company has no obligation to offer cash compensation for exercised subscription rights and does not currently intend to offer such cash compensation for exercised subscription rights.

For further details on SOP 16–18, please see the invitation to the General Shareholders' Meeting on May 25, 2016. The document is available on the Company's website (www.epigenomics.com).

On May 30, 2017, the General Shareholders' Meeting resolved to implement a new stock option program (SOP 17–19) based on the new Conditional Capital XII (see also the section "Share Categories and Capital Structure"). Under this program, the Executive Board and the Supervisory Board of the Company were authorized, until the end of May 31, 2019, to issue stock options in accordance with the provisions set forth below to members of the Executive Board and to employees of the Company as well as to members of the management and to employees of domestic and foreign dependent companies of the Company provided that each stock option so issued entitles the beneficiary to subscribe for one non-par value registered share of the Company. Under this authorization, the Executive Board and the Supervisory Board may issue a total of up to 1,000,000 stock options which entitle the beneficiaries to subscribe for no more than 1,000,000 non-par value registered shares of the Company. Only the Supervisory Board of the Company is authorized to issue stock options to beneficiaries who are members of the Executive Board of the Company. In all other respects, the Executive Board is authorized to grant stock options, with the Executive Board being required to obtain the Supervisory Board's consent before granting stock options to holders of a general power of attorney (Prokura) of the Company and to members of the management of subordinated Group companies. The shareholders have no subscription rights.

The beneficiaries are the members of the Executive Board of the Company and members of the management of subordinated Group companies (group 1) and the employees of the Company and of subordinated Group companies (group 2). From the total volume of SOP 17–19, the distribution shall be as follows:

- Group 1 all beneficiaries: max. 68% or 680,000 stock options
- Group 2 all beneficiaries: max. 32% or 320,000 stock options

The subscription rights may only be exercised outside the blackout periods.

A quarter of the subscription rights in every tranche shall vest for the beneficiaries one year, two years, three years and four years, respectively, after the issue date of the respective tranche. In deviation from the above provision, the Supervisory Board may declare full or partial vesting of subscription rights issued in one tranche in favor of any one or all group 1 beneficiaries, and the Executive Board may with the consent of the Supervisory Board declare full or partial vesting of subscription rights issued in one tranche in favor of any one or all group 2 beneficiaries, at any time after the issue date of the respective tranche. In this case, the subscription rights shall be deemed vested upon receipt by the respective beneficiary of the corresponding declaration by the Executive Board or the Supervisory Board.

Otherwise, the same terms of SOP 16–18 apply to the term, exercise and expiration of the subscription rights under the SOP 17–19.

For further details on SOP 17–19, please see the invitation to the General Shareholders' Meeting on May 30, 2017. The document is available on the Company's website (www.epigenomics.com).

On May 15, 2019, the General Shareholders' Meeting resolved to implement a new stock option program (SOP 19–21) based on the new Conditional Capital XIII (see also the section "Share Categories and Capital Structure"). Under this program, the Executive Board and the Supervisory Board of the Company were authorized, until the end of May 31, 2021, to issue stock options in accordance with the provisions set forth below to members of the Executive Board and to employees of the Company as well as to members of the management and to employees of domestic and foreign dependent companies of the Company provided that each stock option so issued entitles the beneficiary to subscribe for one non-par value registered share of the Company. Under this authorization, the Executive Board and the Supervisory Board may issue a total of up to 1,000,000 stock options which entitle the beneficiaries to subscribe for no more than 1,000,000 non-par value registered shares of the Company. Only the Supervisory Board of the Company is authorized to issue stock options to beneficiaries who are members of the Executive Board of the Company. In all other respects, the Executive Board is authorized to grant stock options, with the Executive Board being required to obtain the Supervisory Board's consent before granting stock options to holders of a general power of attorney (Prokura) of the Company and to members of the management of subordinated Group companies. The shareholders have no subscription rights.

The beneficiaries are the members of the Executive Board of the Company and members of the management of subordinated Group companies (group 1) and the employees of the Company and of subordinated Group companies (group 2). From the total volume of SOP 19–21, the distribution shall be as follows:

- Group 1 all beneficiaries: max. 68% or 680,000 stock options
- Group 2 all beneficiaries: max. 32% or 320,000 stock options

Stock options from the SOP 19–21 may still be issued as of April 1, 2020, October 1, 2020 and April 1, 2021. The subscription rights may only be exercised outside the blackout periods.

A quarter of the subscription rights in every tranche shall vest for the beneficiaries one year, two years, three years and four years, respectively, after the issue date of the respective tranche. In deviation from the above provision, the Supervisory Board may declare full or partial vesting of subscription rights issued in one tranche in favor of any one or all group 1 beneficiaries, and the Executive Board may with the consent of the Supervisory Board declare full or partial vesting of subscription rights issued in one tranche in favor of any one or all group 2 beneficiaries, at any time after the issue date of the respective tranche. In this case, the subscription rights shall be deemed vested upon receipt by the respective beneficiary of the corresponding declaration by the Executive Board or the Supervisory Board.

Otherwise, the same terms of SOP 16–18 and SOP 17–19 apply to the term, exercise and expiration of the subscription rights under the SOP 19–21.

For further details on SOP 19–21, please see the invitation to the General Shareholders' Meeting on May 15, 2019 and the amended resolution proposals of the Executive Board and Supervisory Board. These documents are available on the Company's website at (www.epigenomics.com).

## 40 STOCK OPTION PROGRAMS – OUTSTANDING RIGHTS

SOP 09–13 expired during the year, meaning that no rights were still outstanding as of December 31, 2018. None of these rights were held by members of the Company's Executive Board.

No rights under SOP 16–18, 17–19 and 19–21 expired or were exercised with in the reporting year or in the previous year. No rights were issued under SOP 19–21.

| **SOP 16–18** | Options outstanding | Issued | Forfeited | Reclassified | Options outstanding | Options exercisable |
|---|---|---|---|---|---|---|
| Option holder | as of Jan 1, 2019 (2018) | Options in 2019 (2018) | | | **as of Dec 31, 2019** (2018) | |
| Greg Hamilton (CEO) | 227,500 | 0 | 0 | 0 | 227,500 | 0 |
| | (160,000) | (67,500) | (0) | (0) | (227,500) | (0) |
| Albert Weber (EVP Finance) | 30,000 | 0 | 0 | 0 | 30,000 | 0 |
| | (30,000) | (0) | (0) | (0) | (30,000) | (0) |
| Dr. Uwe Staub (COO) until March 31, 2018 | n/a | n/a | n/a | n/a | n/a | 0 |
| | (22,500) | (0) | (0) | (-22,500) | (n/a) | (0) |
| Other option holders | 690,250 | 0 | 50,000 | 0 | 640,250 | 0 |
| | (455,250) | (298,750) | (56,250) | (-7,500) | (690,250) | (0) |
| **All option holders** | **947,750** | **0** | **50,000** | **0** | **897,750** | **0** |
| | (667,750) | (366,250) | (56,250) | (-30,000) | (947,750) | (0) |
| Average exercise price (in EUR) | 4.86 | n/a | 4.37 | n/a | 4.85 | n/a |
| | (5.22) | (4.12) | (4.80) | (n/a) | (4.86) | (n/a) |

| SOP 17–19 | Options outstanding | Issued | Forfeited | Exercised | Options outstanding | Options exercisable |
|---|---|---|---|---|---|---|
| Option holder | as of Jan 1, 2019 (2018) | Options in 2019 (2018) | | | as of Dec 31, 2019 (2018) | |
| Greg Hamilton (CEO) | 64,080 | 100,000 | 0 | 0 | 164,080 | 0 |
| | (31,580) | (32,500) | (0) | (0) | (64,080) | (0) |
| Jorge Garces (COO) | 85,000 | 85,000 | 0 | 0 | 170,000 | 0 |
| | (0) | (85,000) | (0) | (0) | (85,000) | (0) |
| Albert Weber (EVP Finance) | 70,000 | 70,000 | 0 | 0 | 140,000 | 0 |
| | (0) | (70,000) | (0) | (0) | (70,000) | (0) |
| Other option holders | 174,750 | 356,170 | 29,075 | 0 | 501,845 | 0 |
| | (51,000) | (131,250) | (7,500) | (0) | (174,750) | (0) |
| **All option holders** | **393,830** | **611,170** | **29,075** | **0** | **975,925** | **0** |
| | (82,580) | (318,750) | (7,500) | (0) | (393,830) | (0) |
| Average exercise price (in EUR) | 4.33 | 1.92 | 1.92 | n/a | 2.88 | n/a |
| | (5.10) | (4.12) | (4.12) | (n/a) | (4.33) | (n/a) |

Contractual commitments to a total of 170,000 further rights were made to members of the Executive Board for award to them in 2020, provided they are then available from the active SOP.

Terms of outstanding stock options of all programs:

| | Weighted average exercise price (in EUR) | Stock options issued and outstanding | Weighted average exercise price (in EUR) | Stock options issued and outstanding |
|---|---|---|---|---|
| Term | Dec 31, 2018 | | Dec 31, 2019 | |
| 2023 | 5.43 | 232,830 | 5.43 | 232,830 |
| 2024 | 5.10 | 487,500 | 5.10 | 436,250 |
| 2025 | 4.12 | 621,250 | 4.12 | 615,625 |
| 2026 | 1.92 | 0 | 1.92 | 588,970 |
| **Total** | **4.70** | **1,341,580** | **3.67** | **1,873,675** |

## 41 STOCK OPTION PROGRAMS – VALUATION PARAMETERS

The fair value of SOP 16-18 and SOP 17-19 was determined using the Monte Carlo simulation. It was assumed that the rights will be exercised in the fifth year after the grant date if the market price of the shares exceeds the exercise price of the stock option rights by more than 20% or in the sixth year after the grant date if the market price of the shares exceeds the exercise price of the stock option rights by more than 10%. An earlier exercise of the rights is not permitted under the program terms and conditions.

The following table gives detailed information on both programs active over the balance sheet date and the applied valuation parameters.

| | SOP 16–18 | | SOP 17–19 | |
|---|---|---|---|---|
| | Dec 31, 2018 | Dec 31, 2019 | Dec 31, 2018 | Dec 31, 2019 |
| Total number of outstanding options | 947,750 | 897,750 | 393,830 | 975,925 |
| thereof vested until end of term | 226,270 | 451,082 | 20,645 | 117,853 |
| thereof exercisable | 0 | 0 | 0 | 0 |
| Exercise prices (in EUR) | 4.12–5.43 | 4.12–5.43 | 4.12–5.10 | 1.92–5.10 |
| Weighted average term of outstanding rights in years | 5.67 | 4.67 | 6.15 | 5.82 |
| Weighted average fair value per option (EUR) | 1.92 | 2.52 | 2.09 | 1.35 |
| Applied share price volatility in % | 84.32 | 84.31 | 84.25 | 80.38 |
| Risk-free interest rate in % | -0.04 | -0.04 | 0.13 | -0.12 |
| Assumed staff turnover in % | 5.88 | 4.63 | 7.32 | 8.18 |
| Expiry dates | Oct 1, 2023 – April 1, 2025 | Oct 1, 2023 – April 1, 2025 | Oct 1, 2024 – April 1, 2025 | Oct 1, 2024 – April 1, 2026 |

The risk-free interest rates are derived from the yield curve of German government bonds at the valuation date. The volatility of the share price can be derived from the historical volatility of the shares (in accordance with Bloomberg data) over the most recent past period equaling the remaining term of the rights. For adjustment purposes, a constant staff turnover was assumed based on the historical turnover of the Company's staff over the past four years. No dividend payments were assumed during the term of the rights (i.e., the assumed dividend yield was 0%).

## 42 PHANTOM STOCK PROGRAMS – DESCRIPTION

As of the balance sheet date, the Company had four phantom stock programs (PSPs)/virtual share plans in place as an incentive scheme for management and staff by granting so-called phantom stock rights (PSRs) from such programs to the beneficiaries. The programs define a PSR as a conditional claim of its holder against the Company for a future payment in cash of a premium to the benefit of the holder. As PSRs will be settled in cash upon their exercise, the Company had to record a provision based on the fair values of the outstanding rights.

*Phantom stock program 03–15 (PSP 03–15)*

PSP 03–15 was established in 2013 to serve as a transformation tool for outstanding stock options at that time. Executive Board and Supervisory Board of the Company therefore had decided to offer PSRs from the PSP 03–15 to all stock option holders who were employees or members of the Executive Board at that time and to a dedicated number of former employees of the Company who still held stock options. For each stock option right returned to the Company in connection with an exchange offer, one PSR from PSP 03–15 was granted to its holder. Each PSR from PSP 03–15 became the legal successor of the returned stock option right then and was on equal terms with its economic value. Hence, the term of each PSR from PSP 03–15 equals the remaining term of the returned stock option right. These PSRs will expire without compensation at that point in time when the stock option right that has been returned in exchange would have expired. After the exchange of previously unvested stock option rights against PSRs, the vesting rules of the underlying SOPs applied equally with respect to the vesting of the PSRs. PSRs which were issued in exchange for vested stock options also vested immediately. Vested PSRs obtained in exchange for stock options from the SOP 06–10 can be exercised immediately. Vested PSRs obtained in exchange for stock options from SOP 09–13 and SOP 11–15 can only be exercised when the holding or waiting period of the stock options returned in exchange is or would have expired for its holder.

The exercise price of a PSR from PSP 03–15 equals the exercise price of the stock option right returned in exchange. The exercise of such a PSR simulates the exercise of the former stock option right in a so-called "Exer-Sale" transaction. Unlike the exercise of stock option rights, the holder of a PSR is not entitled to subscribe to a share of the Company by exercising a PSR. Upon the exercise of a PSR from PSP 03–15, the holder of the right obtains a claim against the Company for the payment of the PSR premium. The PSR premium is defined as the absolute difference between the then-current market price for Epigenomics shares and the exercise price of the PSR. Holders of PSRs are entitled to exercise their right during the exercise period when the strike price at the exercise date is higher than the base value. The strike price equals the arithmetic average of the Xetra closing rates for Epigenomics shares on the Frankfurt Stock Exchange on the five consecutive trading days prior to the exercise date. By exercising the PSR, the holder earns an entitlement to obtain the "PSR premium" from the Company. The PSR premium equals the absolute difference between strike price and base value of the right without any limitation. In contrast to the exercise of stock option rights, the exercise of PSRs is not compulsory subject to pre-defined exercise periods ("trading windows") and can be done at any time during the year. Nevertheless, the Executive Board and the Supervisory Board may stipulate compulsory exercise periods for holders of PSRs who are current employees of the Company. This applies in particular to holders of PSRs who are identified as "insiders" within the meaning of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG). It is left to the sole discretion of the Company's Executive Board to define and announce such exercise periods to the employees of the Company holding PSRs. Such exercise periods as determined by the Executive Board will then always apply simultaneously to the Executive Board members.

A takeover or a mandatory offer for the shares of the Company in accordance with the German Securities Acquisition and Takeover Act (Wertpapiererwerbs- und Übernahmegesetz – WpÜG) entitles the holders of vested PSRs to exercise these rights in full. This also applies if the waiting period for these rights has not yet expired. The exercise right for the PSR holder shall apply only if the offered consideration consists solely of a cash settlement and if the bidder has gained control over the Company. In the event of a takeover, the PSR premium equals the difference between the cash amount which was finally offered to the shareholders as part of a takeover or a mandatory offer and the base value of the PSR.

*Phantom stock program 2013 (PSP 2013), phantom stock program 2014 (PSP 2014), and phantom stock program 2015 (PSP 2015)*

PSP 2013 was approved by the Executive Board and the Supervisory Board of the Company in May 2013. PSP 2014 was approved by the Executive Board and the Supervisory Board of the Company in May 2014. PSP 2015 was approved by the Executive Board and the Supervisory Board of the Company in September 2015.

No further rights can be issued from PSP 2013, PSP 2014, and PSP 2015. The eligible beneficiaries of these programs were the members of the Executive Board and Group employees with an unterminated service or employment agreement with a Group company. The Executive Board decided on issuing PSRs from these programs to employees of the Company and to executives and employees of the subsidiaries. The Supervisory Board decided on issuing PSRs to the members of the Executive Board.

A certain number of PSRs granted to a beneficiary at a certain point in time is defined as a tranche. The PSRs of each tranche issued to beneficiaries who were not members of the Company's Executive Board at the issuance date started to vest from the beginning of the first full calendar quarter over the three years following their issuance in five equal parts, beginning with the first day of the fifth full calendar quarter after the issuance of the tranche. Thereafter, the further four of the five parts each vest after the end of the following four half-years. Thus, the last of the five parts vests after the last day of the twelfth full calendar quarter following issuance of the tranche and therefore at the end of a three-year waiting period. PSRs of each tranche can only be exercised after their vesting, but not before the end of the waiting period. The term of the PSRs begins with their issuance and ends five years after the beginning of their vesting period. Rights not exercised upon the end of their term expire without compensation. PSRs can generally be exercised at any time in the two years between the end of their waiting period and the end of their term ("exercise period"). Nevertheless, the Executive Board and Supervisory Board can stipulate adherence to timing restrictions in the exercise periods. This applies in particular to holders of rights who are identified by the Executive Board as an "insider" within the meaning of Section 15b WpHG. The Executive Board of the Company reserves the right to establish such timing restrictions in the exercise periods and to announce such restrictions in the exercise periods to rights holders who are employees of the Company at that date. Timing restrictions in exercise periods as announced by the Executive Board will always apply simultaneously to PSRs held by the Executive Board members themselves.

At the issuance of a PSR tranche, a so-called "base value" of the rights was determined. This base value equaled the average of the Xetra closing rates for Epigenomics shares on the Frankfurt stock exchange on the last five trading days before issuance. Holders of PSRs are entitled to exercise their right during the exercise period when the strike price at the exercise date is higher than the base value. The strike price equals the arithmetic average of the Xetra closing rates for Epigenomics shares on the Frankfurt Stock Exchange on the five consecutive trading days prior to the exercise date. By exercising the PSR, the holder earns an entitlement to obtain the "PSR premium" from the Company. The PSR premium equals the absolute difference between the strike price and the base value of the right up to a maximum of EUR 8.00 (PSP 2013), EUR 12.00 (PSP 2014), or EUR 15.00 (PSP 2015).

Any PSRs held by a beneficiary that have not yet vested expire without compensation upon termination of the service or employment agreement by the beneficiary or if the service or employment agreement has been terminated by the Company for cause. Any PSRs held by a beneficiary that have not yet vested shall remain valid if the Company terminates the service or employment agreement due to operational reasons. If the service or employment agreement is terminated by mutual consent, it is left to the sole discretion of the Executive Board or the Supervisory Board to decide whether those PSRs held by the beneficiary that have not yet vested at that point in time remain valid. If holders of vested PSRs leave the Company before the expiry date of those rights, they remain entitled to such vested rights until the expiry date. In such case, the strike price of their rights from PSP 2014 and PSP 2015 will be limited to the arithmetic average of the Xetra closing rates on the Frankfurt stock exchange on the five consecutive trading days prior to the final termination date of their employment agreement with the Company.

A takeover or a mandatory offer for the shares of the Company in accordance with the WpÜG entitles the holders of vested PSRs to exercise these rights in full. This also applies if the waiting period for these rights has not yet expired. The exercise right for the PSR holder will only apply if the offered consideration consists solely of a cash settlement and if the bidder has gained control over the Company. In the event of a takeover, the PSR premium equals the difference between the cash amount which was finally offered to the shareholders as part of a takeover or a mandatory offer and the base value of the PSR. However, the limitation of the PSR premium to EUR 8.00 (PSP 2013), EUR 12.00 (PSP 2014), and EUR 15.00 (PSP 2015) will still apply in such case.

## 43 PHANTOM STOCK PROGRAMS – OUTSTANDING RIGHTS

No rights under the Company's PSPs were issued in the reporting year or in the previous year.

### *Phantom stock program 03–15 (PSP 03–15)*

All rights under the program expired in the reporting period. The expired rights were not held by members of the Company's Executive Board. The program is thereby terminated.

| Beneficiaries | Reporting year | Rights held as of Jan 1 | expired | Rights held as of Dec 31 |
|---|---|---|---|---|
| **Dr. Uwe Staub (COO) – until March 31, 2018** | **2019** | **n/a** | **n/a** | **n/a** |
| | 2018 | 22,400 | 22,400 | n/a |
| Other beneficiaries | **2019** | **20,000** | **20,000** | **0** |
| | 2018 | 75,800 | 55,800 | 20,000 |
| **Total** | **2019** | **20,000** | **20,000** | **0** |
| | 2018 | 98,200 | 78,200 | 20,000 |
| **Average base value (EUR/right)** | **2019** | **2.51** | **2.51** | **n/a** |
| | 2018 | 5.98 | 6.87 | 2.51 |

### *Phantom stock program 2013 (PSP 2013)*

No previously issued rights under PSP 2013 were forfeited either in the reporting year or in the previous year. All rights under the program expired in the reporting period. The expired rights were not held by members of the Company's Executive Board. The program is thereby terminated.

| Beneficiaries | Reporting year | Rights held as of Jan 1 | expired | exercised | reclassified | Rights held as of Dec 31 |
|---|---|---|---|---|---|---|
| **Dr. Uwe Staub (COO) – until March 31, 2018** | **2019** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** |
| | 2018 | 20,000 | 0 | 0 | -20,000 | n/a |
| Other beneficiaries | **2019** | **23,000** | **23,000** | **0** | **0** | **0** |
| | 2018 | 78,000 | 10,000 | 65,000 | 20,000 | 23,000 |
| **Total** | **2019** | **23,000** | **23,000** | **0** | **0** | **0** |
| | 2018 | 98,000 | 10,000 | 65,000 | 20,000 | 23,000 |
| **Average base value (EUR/right)** | **2019** | **6.19** | **6.19** | **n/a** | **n/a** | **n/a** |
| | 2018 | 2.70 | 1.64 | 1.62 | 6.15 | 6.19 |

### *Phantom stock program 2014 (PSP 2014)*

No previously issued rights under PSP 2014 were forfeited either in the reporting year or in the previous year. All rights under the program expired in the reporting period. 30,000 of the expired rights were held by members of the Company's Executive Board. The program is thereby terminated.

| Beneficiaries | Reporting year | Rights held as of Jan 1 | expired | exercised | reclassified | Rights held as of Dec 31 |
|---|---|---|---|---|---|---|
| **Albert Weber (EVP Finance)** | **2019** | **30,000** | **30,000** | **0** | **0** | **0** |
| | 2018 | 0 | 0 | 0 | 30,000 | 30,000 |
| **Dr. Uwe Staub (COO) – until March 31, 2018** | **2019** | **n/a** | **n/a** | **n/a** | **n/a** | **n/a** |
| | 2018 | 60,000 | 0 | 0 | -60,000 | n/a |
| Other beneficiaries | **2019** | **224,833** | **224,833** | **0** | **0** | **0** |
| | 2018 | 263,833 | 0 | 69,000 | 30,000 | 224,833 |
| **Total** | **2019** | **254,833** | **254,833** | **0** | **0** | **0** |
| | 2018 | 323,833 | 0 | 69,000 | 0 | 254,833 |
| **Average base value (EUR/right)** | **2019** | **3.23** | **3.23** | **n/a** | **n/a** | **n/a** |
| | 2018 | 3.23 | n/a | 3.23 | 3.23 | 3.23 |

### *Phantom stock program 2015 (PSP 2015)*

No previously issued rights under PSP 2015 expired or were forfeited or exercised either in the reporting year or in the previous year.

| Beneficiaries | Reporting year | Rights held as of Jan 1 | reclassified | Rights held as of Dec 31 |
|---|---|---|---|---|
| **Albert Weber (EVP Finance)** | **2019** | **10,000** | **0** | **10,000** |
| | 2018 | 0 | 10,000 | 10,000 |
| **Dr. Uwe Staub (COO) – until March 31, 2018** | **2019** | **n/a** | **n/a** | **n/a** |
| | 2018 | 14,400 | -14,400 | n/a |
| Other beneficiaries | **2019** | **88,400** | **0** | **88,400** |
| | 2018 | 84,000 | 4,400 | 88,400 |
| **Total** | **2019** | **98,400** | **0** | **98,400** |
| | 2018 | 98,400 | 0 | 98,400 |
| **Average base value (EUR/right)** | **2019** | **5.05** | **n/a** | **5.05** |
| | 2018 | 5.05 | 5.05 | 5.05 |

## 44 PHANTOM STOCK PROGRAMS – VALUATION PARAMETERS

The fair value of all PSRs was calculated by using the binomial approach based on the Cox-Ross-Rubinstein model. For PSP 03–15 it was assumed that the rights will be exercised after their waiting period if the market price of the shares exceeds the base value of the PSR by more than 10%. For PSP 2013, PSP 2014, and PSP 2015 it was assumed that the rights will be exercised in the fourth year after the grant date if the market price of the shares exceeds the base value of the PSR by more than 20% or in the fifth year after the grant date if the market price of the shares exceeds the base value of the PSR by more than 10%. An earlier exercise of the rights is not permitted under the program terms and conditions.

The following table gives detailed information on all programs and the applied valuation parameters.

| | PSP 03–15 | | PSP 2013 | |
|---|---|---|---|---|
| | Dec 31, 2018 | Dec 31, 2019 | Dec 31, 2018 | Dec 31, 2019 |
| Total number of outstanding PSRs | 20,000 | 0 | 23,000 | 0 |
| thereof vested until end of term | 20,000 | 0 | 23,000 | 0 |
| thereof exercisable | 20,000 | 0 | 23,000 | 0 |
| Base value of PSR (in EUR) | 2.51 | n/a | 6.15–6.45 | n/a |
| Aggregate adjusted fair value of PSRs (in EUR thousand) | 0 | n/a | 0 | n/a |
| Aggregate maximum payments if PSRs are exercised (in EUR thousand)[1] | n/a | n/a | 184 | n/a |
| Weighted average term of outstanding rights (in years) | 0 | n/a | 0,22 | n/a |
| Weighted average fair value (EUR/PSR) | 0 | n/a | 0 | n/a |
| Applied share price volatility in % | 27.12 | n/a | 31.11 | n/a |
| Risk-free interest rate in % | -0.65 | n/a | -0.80 | n/a |
| Assumed staff turnover in % | 0.0 | n/a | 0.0 | n/a |
| Expiry dates | Jan 1, 2019 | n/a | Jan 1, 2019 – April 1, 2019 | n/a |

[1] The aggregate maximum payment to be made by the Company upon exercise of all outstanding rights under PSP 03–15 cannot be calculated as the program does not provide for a cap on the PSR premium.

| | PSP 2014 | | PSP 2015 | |
|---|---|---|---|---|
| | Dec 31, 2018 | Dec 31, 2019 | Dec 31, 2018 | Dec 31, 2019 |
| Total number of outstanding PSRs | 254,833 | 0 | 98,400 | 98,400 |
| thereof vested until end of term | 254,833 | 0 | 98,400 | 98,400 |
| thereof exercisable | 254,833 | 0 | 98,400 | 98,400 |
| Base value of PSR (in EUR) | 3.23–3.70 | n/a | 5.05 | 5.05 |
| Aggregate adjusted fair value of PSRs (in EUR thousand) | 18 | n/a | 1 | 0 |
| Aggregate maximum payments if PSRs are exercised (in EUR thousand)[1] | 2,153 | n/a | 383 | 375 |
| Weighted average term of outstanding rights (in years) | 0.76 | n/a | 1.75 | 0.76 |
| Weighted average fair value (EUR/PSR) | 0.07 | n/a | 0.02 | 0.00 |
| Applied share price volatility in % | 78.04 | n/a | 66.61 | 38.58 |
| Risk-free interest rate in % | -0.74 | n/a | -0.63 | -0.67 |
| Assumed staff turnover in % | 0.0 | n/a | 0.00 | 0.00 |
| Expiry dates | Oct 1, 2019 | n/a | Oct 1, 2020 | Oct 1, 2020 |

[1] The aggregate maximum payment to be made by the Company upon exercise of all outstanding rights under PSP 03–15 cannot be calculated as the program does not provide for a cap on the PSR premium.

The risk-free interest rates are derived from the yield curve of German government bonds at the valuation date. The volatility of the share price can be derived from the historical volatility of the shares (in accordance with Bloomberg data) over the most recent past period equaling the remaining term of the rights. For adjustment purposes, a constant staff turnover was assumed based on the historical turnover of the Company's staff over the past three years. No dividend payments were assumed during the term of the rights (i.e., the assumed dividend yield was 0%).

The aggregate adjusted fair value of the rights granted under all programs amounted to EUR 0 thousand as of December 31, 2018 (December 31, 2018: EUR 20 thousand). This was recognized as a non-current provision of EUR 0 thousand and a current provision of EUR 0 thousand as of the balance sheet date.

# OTHER INFORMATION

## 45 INFORMATION ON THE EXECUTIVE BOARD AND THE SUPERVISORY BOARD OF THE COMPANY AND THEIR REMUNERATION

In the reporting year, the Company's Executive Board consisted of Greg Hamilton as Chief Executive Officer, Jorge Garces, Ph.D., as Chief Scientific Officer and Albert Weber as Executive Vice President Finance.

The remuneration of the members of the Company's Executive Board comprises a fixed and a variable component. The variable amount is determined on the basis of a variety of criteria, including the achievement of individual performance targets and Company performance targets, which are set by the Supervisory Board on a yearly basis. Apart from the fixed and the variable component, a third remuneration component consists of a long-term performance-based compensation in the form of phantom stock rights (PSRs) and stock options. In addition, the Executive Board members are beneficiaries of a D&O insurance policy with excess set at the statutory minimum amount. They also receive full reimbursement of their business travel expenses and other incidental benefits detailed in the remuneration report section of the Group management report 2019.

In 2019, total remuneration of the members of the Executive Board based on the benefits granted amounted to EUR 2,031 thousand (2018: EUR 2,376 thousand) and comprised:

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Fixed remuneration | 1,265 | 1,302 |
| One-year variable remuneration | 664 | 460 |
| Multi-year variable remuneration | 447 | 269 |
| **Total remuneration (granted benefits)** | **2,376** | **2,031** |

The multi-year variable compensation of the Executive Board members in 2019 comprised 255,000 stock options (2018: 255,000).

Based on the allocations (cash payments), the total remuneration of the members of the Executive Board in the reporting period amounted to EUR 1,966 thousand (2018: EUR 1,732 thousand) and comprised:

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Fixed remuneration | 1,265 | 1,302 |
| One-year variable remuneration | 467 | 664 |
| Multi-year variable remuneration | 0 | 0 |
| **Total remuneration (allocations)** | **1,732** | **1,966** |

In the event of a change of control, all Executive Board members have a special right to terminate their service agreements and would in such case be entitled to receive payment of their fixed remuneration for the remaining term of their service agreements. In no case will such payment exceed 150% of the severance payment cap in accordance with section 4.2.3 of the German Corporate Governance Code.

The Supervisory Board of the Company comprised the following members in the reporting period: Heino von Prondzynski, Einsiedeln (Switzerland) as Chairman, Dr. Ann Clare Kessler, Rancho Santa Fe, CA (U.S.A.), and Prof. Günther Reiter, Pfullingen (Germany) as Deputy Chairman, Dr. Helge Lubenow, Langenfeld/Rheinland (Germany) and, from May 2019, Franz Thomas Walt, Flims-Dorf (Switzerland).

The remuneration structure for the Supervisory Board is based on an annual cash retainer ("fixed remuneration") and meeting-related payments ("variable remuneration"). The remuneration does not include any performance-related elements or long-term incentive components. In 2019, total remuneration of the members of the Supervisory Board amounted to EUR 281 thousand (2018: EUR 253 thousand) and comprised:

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Fixed remuneration | 205 | 225 |
| Variable remuneration | 48 | 56 |
| **Total remuneration** | **253** | **281** |

Further details to the composition of the Executive Board and the Supervisory Board and details of the remuneration of their members in the reporting year can be found in the "Remuneration Report" section of the Group management report 2018.

## 46 OTHER FINANCIAL OBLIGATIONS

| EUR thousand | Term < 1 year | Term 1–5 years |
|---|---|---|
| Financial obligations from licensing agreements | 32 | 0 |
| Financial obligations from operating rental, lease, maintenance and service agreements | 23 | 9 |
| Financial obligations from manufacturing orders | 149 | 0 |
| Financial obligations from the purchase of goods and services | 476 | 12 |
| **Total financial obligations** | **680** | **21** |

## 47 INFORMATION ON THE COMPANY'S AUDITOR APPOINTED BY THE GENERAL SHAREHOLDERS' MEETING

At the Company's Annual General Shareholders' Meeting in May 2019, Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft was engaged to audit the Company's annual financial statements and consolidated financial statements for fiscal year 2019. During the reporting year, a total amount of EUR 198 thousand (2018: EUR 213 thousand) was expensed for miscellaneous services of this auditing firm for Epigenomics AG. Details are shown in the following table:

| EUR thousand | 2018 | 2019 |
|---|---|---|
| Costs for audit services | 126 | 118 |
| Costs for other assurance services | 87 | 80 |
| **Total** | **213** | **198** |

The costs disclosed for audit services relate to the audits of the separate financial statements of Epigenomics AG in accordance with German GAAP as well as the consolidated financial statements for the Epigenomics Group in accordance with IFRSs, and on reviews of the interim statements. The costs for other assurance services were incurred in connection with the Company's capital increase in November 2019.

## 48 DECLARATION OF THE EXECUTIVE BOARD AND THE SUPERVISORY BOARD OF EPIGENOMICS AG PURSUANT TO SECTION 161 AKTG ON THE GERMAN CORPORATE GOVERNANCE CODE

In October 2019, the Executive Board and the Supervisory Board of the Company issued an updated declaration of compliance pursuant to section 161 of the German Stock Corporation Act (Aktiengesetz – AktG). The declaration was published on the Company's website (www.epigenomics.com/news-investors/corporate-governance/).

## 49 INFORMATION ON OTHER TRANSACTIONS WITH RELATED PARTIES

As of the reporting date, the Company's liabilities due to members of its Executive Board amounted to EUR 472 thousand (December 31, 2018: EUR 120 thousand) and liabilities due to members of its Supervisory Board amounted to EUR 32 thousand (December 31, 2018: EUR 0 thousand). There were no other transactions with related parties during the reporting year.

## 50 REPORT ON POST-BALANCE SHEET DATE EVENTS

On February 29, 2020 – after the end of the reporting period – we have announced that the Centers for Medicare & Medicaid Services (CMS) have opened the National Coverage Determination (NCD) review of Epi proColon, Epigenomics' blood test for colorectal cancer screening. This means that according to the statutes, a decision on CMS's reimbursement of Epi proColon must be made within a maximum period of nine months. A positive CMS reimbursement decision would represent a major breakthrough for the company in the commercialization of Epi proColon in the U.S. market.

Due to the rapid international spread of the corona virus after the end of the reporting period and the resulting consequences for the global economy, Epigenomics also analyzed its own situation and took precautionary measures as far as possible. With regard to the supply chain, it can be noted that we have our products manufactured by certified manufacturers in Italy and California (U.S.A.). Production bottlenecks due to the Covid-19 pandemic are not foreseeable at this point in time (editorial deadline for the consolidated financial statements 2019). The Company also has inventories at several warehouses in Germany and the U.S.A., which guarantee delivery capability based on current business planning for the next six months. In addition, the Company will closely and promptly monitor further developments and, if necessary, take appropriate measures in order to be able to react to economically negative effects of the pandemic on the Company even at short notice. However, at the current time, the Company does not expect its planned sales to be affected in the long term. Should cost reductions and/or liquidity-saving measures become necessary due to further developments, the continuation of studies could be postponed and further savings potential identified. The utilization of governmental support measures in the context of the Covid-19 crisis is being examined at the time of preparation of these consolidated financial statements.

On March 31, 2020 – after the end of the reporting period – the Company announced that it has fully placed new shares from a capital increase resolved on March 30, 2020 of up to EUR 3,602,154.00 at a price of EUR 1.11 per new share. Accordingly, the Company's share capital will be increased from currently EUR 43,527,692.00 by EUR 3,602,154.00 to EUR 47,129,846.00 by issuing up to 3,602,154 new registered no par value shares of the Company against cash contributions. The gross proceeds from the capital increase amount to approximately EUR 4.0 million. Epigenomics AG intends to use the net proceeds from the capital increase primarily to finance its ongoing operations.

## 51 APPROVAL FOR PUBLICATION

On March 31, 2020, the Executive Board cleared the consolidated financial statements for submission to the Supervisory Board. The Supervisory Board is tasked with reviewing the consolidated financial statements and stating whether it approves them. The consolidated financial statements and annual financial statements of Epigenomics AG, and the annual report, will be approved at the Supervisory Board meeting on April 29, 2020 and published on the same day.

Berlin, March 31, 2020

The Executive Board

## RESPONSIBILITY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements 2019 give a true and fair view of the assets, liabilities, financial position andprofit or loss of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Berlin, March 31, 2020

The Executive Board

# INDEPENDENT AUDITOR'S REPORT

To the Epigenomics AG, Berlin

## REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

### Audit opinions

We have audited the consolidated financial statements of Epigenomics AG and its subsidiaries (the Group), which comprise the consolidated balance sheet as at December 31, 2019, and the consolidated statement of comprehensive income (consolidated statement of profit or loss and other comprehensive income), consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1, 2019 to December 31, 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the Group management report of Epigenomics AG for the financial year from January 1, 2019 to December 31, 2019. In accordance with the German legal requirements we have not audited the declaration on corporate governance and the compliance statement contained in the management report's section "Corporate governance".

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Article 315e paragraph 1 HGB 8(Handelsgesetzbuch: German Commercial Code) and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2019, and of its financial performance for the financial year from January 1, 2019 to December 31, 2019, and
- the accompanying Group management report as a whole provides an appropriate view of the Group's position. In all material respects, this Group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the Group management report does not cover the declaration on corporate governance and the compliance statement contained in the section "Corporate governance".

Pursuant to Article 322 paragraph 3 sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the Group management report.

### Basis for the audit opinions

We conducted our audit of the consolidated financial statements and of the Group management report in accordance with Articel 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the Group management report.

## Material uncertainties in connection with the continuation as a going concern

We refer to the section "General principles" in the notes to the consolidated financial statements as well as the information in the section "Financial opportunities and risks" of the Group management report, where the legal representatives explain that with liquidity of EUR 11 million existing on the balance sheet date, in 2020 further capital measures or cost reduction measures are necessary in order to ensure going concern beyond the beginning of 2021. A first step towards this was the capital increase placed on March 31, 2020 after the end of the reporting period, with which the Company was able to achieve a net proceeds of EUR 3.6 million. This facts indicate the existence of a material uncertainty which may raise doubts as to the Group's ability to continue as a going concern and poses a risk to the Group's continued existence as a going concern pursuant to Art. 322 Sec. 2 sentence 3 HGB. We have not modified our audit opinion with regard to these facts.

## Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1, 2019 to December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon, we do not provide a separate audit opinion on these matters.

From our perspective, the following matters were of most significance during our audit:

- Revenue recognition
- Stock options

We have structured our presentation of these key audit matters as follows:

1. Facts and problems
2. Audit approach and findings
3. Reference to further information

In the following, we will present these key audit matters:

*Revenue recognition:*

1. During the financial year, the Company recognized sales revenues in the amount of ca. EUR 1.1 million. Sales revenues are one of the most significant financial performance indicators in the capital market communication. These sales revenues include sales of the only main product in the amount of EUR 1.0 million and license revenues in the amount of EUR 0.1 million. Product sales are mainly realized by means of sales to few major customers. Partially there are framework agreements with customers which may be supplemented by further agreements. These agreements may be decisive as to whether a sale has been realized. An incomplete presentation of these additional agreements within the scope of revenue recognition poses a risk, which is why we believe this matter is of particular importance.
2. We have convinced ourselves from the correct recognition of sales by means of framework agreements, external confirmations as to possibly existing additional arrangements, proofs of delivery as well as the outgoing invoices and the related incoming payments. We could convince ourselves that any conditions additionally agreed upon with the major customers have been appropriately processed during the revenue recognition's assessment.
3. The Company's statements on the revenue recognition are contained in the consolidated financial statements' notes' section "notes to the consolidated statements of comprehensive income (consolidated statement of profit or loss and other comprehensive income) – 1 revenue".

*Stock options:*

1. As of the balance sheet date, stock option programs (AOP – "Equity settled share based payments") have been recognized in the Company's consolidated financial statements. During the reporting year, further commitments for AOPs have been granted to employees and board members. The AOPs are presented in the consolidated financial statements under the relevant expense positions (cost of sales, research and development costs as well as distribution and administration costs) as well as equity. An amount of EUR 0.9 million of AOPs has been recognized as costs through profit and loss. The Company uses an external expert for the valuation of AOPs. From our perspective, share-based remuneration programs were of particular importance as they depend to a major extent on the legal representatives' assessments and estimates and are thus afflicted by uncertainties.
2. Based upon the knowledge that estimated values provide for an increased risk of misstatements in the financial reporting and that the legal representatives' assessment decisions have a direct and clear impact on the consolidated financial statements, we have convinced ourselves of the valuation parameters' (such as risk-free interest and the shares' volatility) appropriateness by means of contract and company data and by involving a specialist's expertise and have assessed the new commitments' valuations' appropriateness. Based on that, we audited the accounting effect in the consolidated statement of comprehensive income (consolidated income statement and other results) and in the consolidated balance sheet. The management board's underlying estimates and assessments made are within a reasonable range.
3. The Company's information on the stock option program's valuation is contained in the notes to the consolidated financial statements in section "Share-based payment expenses", "Description of stock-option programs", "Stock option programs – outstanding rights" and "Stock option programs – valuation parameters".

## Other information

The executive directors are responsible for the other information. The other information comprises dated as of the date of our audit opinions:

- Compliance statement in the section "Corporate governance" of the 2019 Group management report,
- declaration on corporate governance in the section "Corporate governance" of the 2019 Group management report,
- section "Epi proColon" in the 2019 annual report,
- section "Foreword by the Executive Board" in the 2019 annual report,
- section "Our stock" in the 2019 annual report and
- section "Responsibility statement by the legal representatives" in the 2019 annual report.

The Supervisory Board is responsible for the following other information:

- section "Report of the Supervisory Board" in the 2019 annual report.

Our audit opinions on the consolidated financial statements and on the Group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the Group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

## Responsibilities of the Executive Directors and the Supervisory Board for the consolidated financial statements and the Group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Article 315e paragraph 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the Group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a Group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the Group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the Group management report.

## Auditor's responsibilities for the audit of the consolidated financial statements and of the Group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the Group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the Group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Article 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this Group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the Group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the Group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the Group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Article 315e paragraph 1 HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the Group management report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the Group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the Group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

## OTHER LEGAL AND REGULATORY REQUIREMENTS

### Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as Group auditor by the annual general meeting on May 15, 2019. We were engaged by the Supervisory Board on October 18, 2019. We have been the Group auditor of the Epigenomics AG without interruption since the financial year 2015.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

## GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Andreas Weissinger.

Munich, dated April 1, 2020

Baker Tilly GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft
(Düsseldorf)

Hund
German CPA

Weissinger
German CPA

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## ABBREVIATIONS

| | |
|---|---|
| ADR | American Depositary Receipts |
| AktG | German Stock Corporation Act |
| ARUP | ARUP Laboratories |
| CFDA | China Food and Drug Administration |
| CMS | Centers for Medicare & Medicaid Services |
| CPT | Current Procedural Terminology |
| CUSIP | Committee on Uniform Security Identification Procedures |
| EBIT | Earnings Before Interest and Tax |
| EBITDA | Earnings Before Interest, Tax, Depreciation and Amortization |
| ERP | Enterprise Resource Planning |
| EU | European Union |
| ECB | European Central Bank |
| FDA | Food and Drug Administration |
| Fed | Federal Reserve System |
| FIT | Faecal Immunochemical Test |
| GDP | Gross Domestic Product |
| GMP | Good Manufacturing Practice |
| HGB | German Commercial Code |
| HPV | Human Papilloma Virus |
| IAS | International Accounting Standards |
| IASB | International Accounting Standards Board |
| IDW | Institute of Public Auditors in Germany |
| IFRS | International Financial Reporting Standards |
| IKS | Internes Kontroll- und Risikomanagementsystem |
| IPO | Initial Public Offering |
| ISIN | International Securities Identification Number |
| ISO | International Organization for Standardization |
| IVD | In Vitro Diagnostic |
| KonTraG | German Corporate Control and Transparency Act |
| LDT | Laboratory Developed Test |
| M&A | Mergers & Acquisitions |
| NCD | National Coverage Determination |
| NGS | Next Generation Sequencing |

| | |
|---|---|
| OECD | Organisation for Economic Co-operation and Development |
| OTCQX | Over-the-counter stock exchange |
| PAL | Principal American Liaison |
| PCR | Polymerase Chain Reaction |
| PMA | Premarket Approval |
| PERT | Performance of Epi proColon in Repeated Testing in the Intended Use Population |
| PSP | Phantom Stock Program |
| PSR | Phantom Stock Right |
| R&D | Research & Development |
| Septin9 | DNA methylation biomarkers, intellectual property by Epigenomics |
| SHOX2 | DNA methylation biomarkers, intellectual property by Epigenomics |
| SOP | Stock Option Program |
| SOPs | Standard Operating Procedures |
| USPSTF | United States Preventive Services Task Force |
| WKN | Security Code Number |
| WpÜG | German Securities Acquisition and Takeover Act |

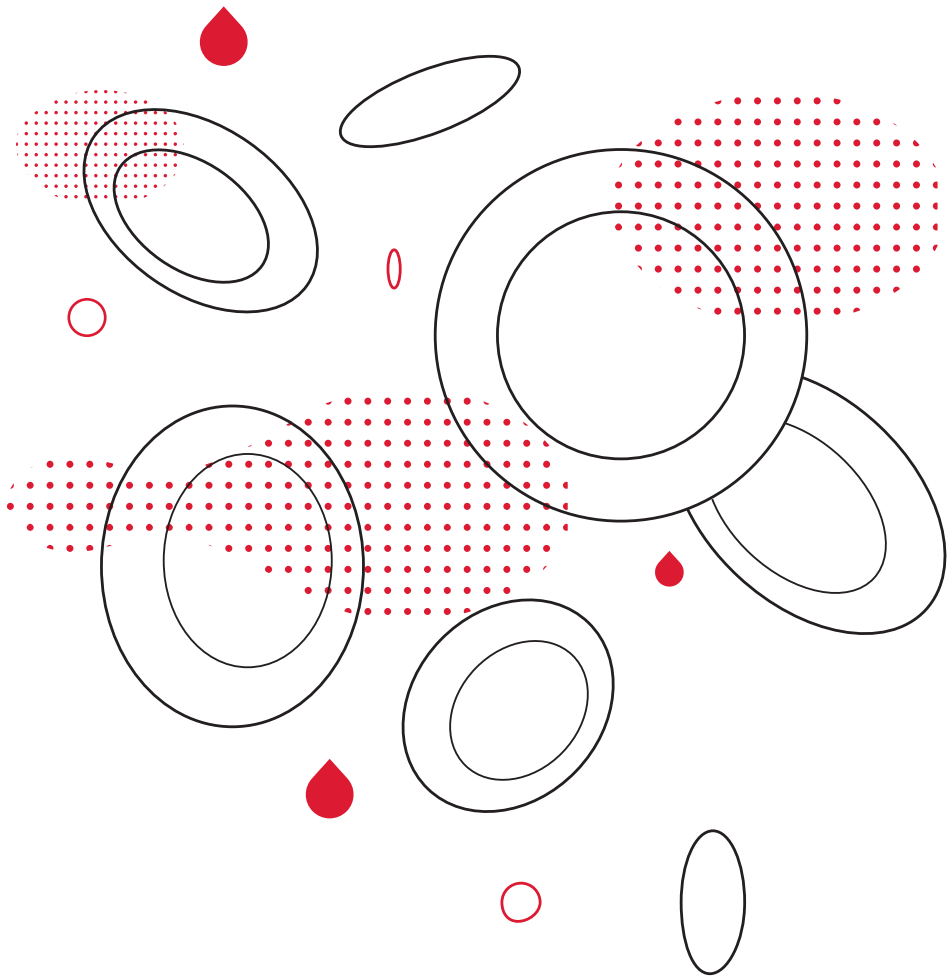
## FINANCIAL CALENDAR

Report on first quarter 2020 . . . . . Thursday, May 7, 2020

Annual General Meeting, Berlin Postponed . . . . . Friday, June 12, 2020

Report on second quarter/first half 2020 . . . . . Thursday, August 13, 2020

Report on third quarter 2020 . . . . . Thursday, November 12, 2020



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