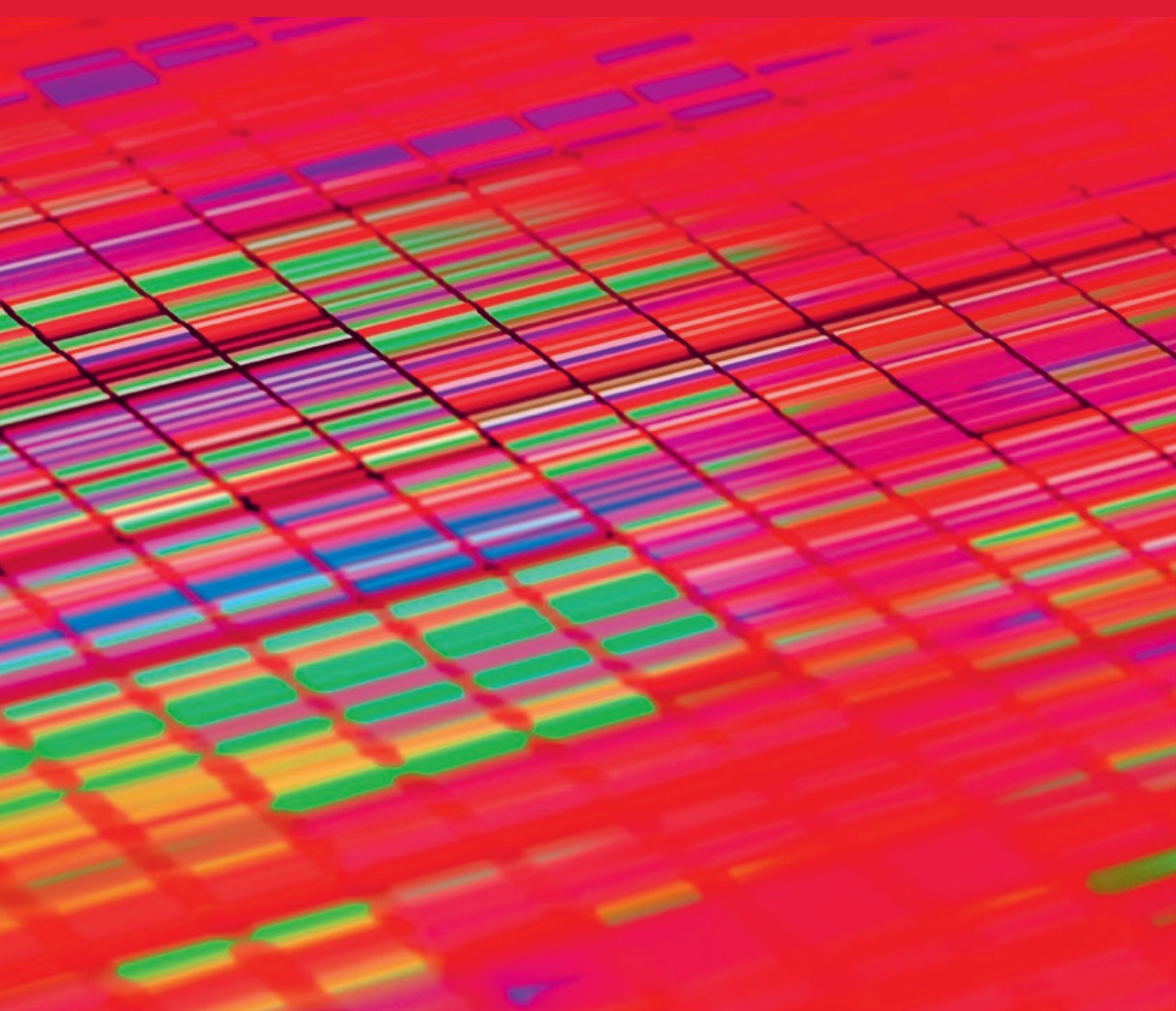


Annual Report 2019

# Biotech Investor

*since 1993*



**B|B Biotech**

# Growth

Biotechnology is one of the most attractive of any sector today with estimated annual growth in the double-digits. Megatrends such as increasing life expectancy and a Westernized diet and lifestyle are key growth drivers. These megatrends have led to a cost explosion in healthcare systems, which, in turn, only amplifies the need for more efficient and effective drugs. Furthermore, a number of pharmaceutical giants are confronted with steep declines in sales as a result of patent expirations. They are acquiring innovative biotech products in an attempt to replenish product pipelines and they have been willing to pay hefty premiums in these deals. Considering that every second drug approved today stems from the labs of a biotech company and that many biotech firms are showing strong sales and profit growth, biotechnology has definitely matured into a major industry.

# Pioneering spirit

Since 1993, we have offered investors direct access to a select portfolio of promising, fast growing and profitable biotech companies listed on stock markets around the world. Our decades of expertise combined with a systematic strategy and clear focus have made us one of the world's largest investors in the biotech sector. BB Biotech's success is driven by its underlying investment portfolio. Its seasoned and highly specialized Investment Team constructs a concentrated and balanced portfolio comprised of 20 to 35 positions selected from a universe of more than 1 000 biotech companies. Most of the stocks in the portfolio are innovative mid and small caps, crown jewels of the biotech industry with distinct profiles and high growth potential. While the Investment Team focuses on established areas within the biotech industry such as cancer, orphan diseases, and neurological disorders, it will also move quickly to position itself in novel treatment options with promising efficacy and a potential economic benefit. These include new RNA-based platforms or cell and gene therapies.

# Know how

The Investment Management Team of Bellevue Asset Management AG has extensive academic knowledge in the areas of biochemistry, molecular biology, medicine and economics. In the strategic decisions and analysis of portfolio investments, the team is guided by the decades of collective experience of the distinguished Board of Directors. The team also makes use of a network of physicians and specialists for individual therapeutic areas and maintains close contact with the management of the companies we invest in, due to our firm belief that excellent management is an essential prerequisite for excellent performance.

## Board of Directors

Dr. Erich Hunziker (Chairman)  
Dr. Clive Meanwell  
Prof. Dr. Dr. Klaus Strein  
Dr. Thomas von Planta

## Investment Management Team

Dr. Daniel Koller (Head)  
Dallas Webb  
Felicia Flanigan  
Dr. Stephen Taubenfeld  
Dr. Christian Koch  
Dr. Maurizio Bernasconi

## Legal structure

Incorporated company

## Listing

Swiss stock exchange (BION SW)  
German stock exchange (BBZA GY)  
Italian stock exchange (BB IM)

## Foundation

November 9, 1993

## Share type

Registered shares

## Share structure

55.4 mn registered shares

## ISIN

CH0038389992

## Security number (CH)

3 838 999

## Security number (G/I)

AONFN3

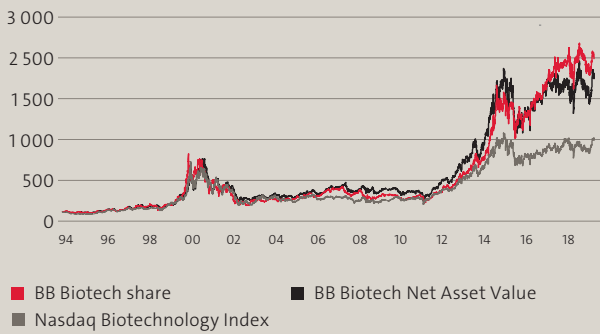
## Investor Relations

Dr. Silvia Siegfried-Schanz  
Claude Mikkelsen  
Maria-Grazia Iten-Alderuccio

## Media Relations

Tanja Chicherio

### Indexed performance since launch (in CHF)



### Cumulated performance

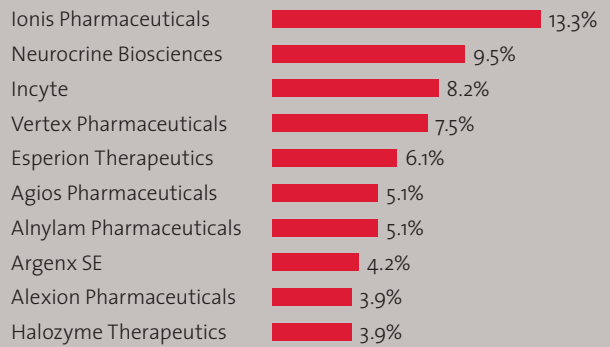
As of 12/31/2019	1 year	3 years	5 years	since inception
<b>Switzerland</b>	18.5%	38.1%	77.2%	2 371%
<b>Germany</b>	23.4%	36.3%	95.8%	1 884%
<b>Italy</b>	22.6%	35.7%	95.8%	355.4%

### Annualized performance

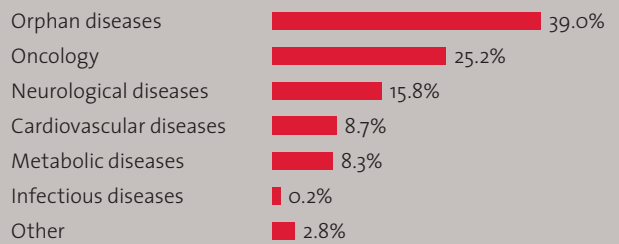
As of 12/31/2019	1 year	3 years	5 years	since inception
<b>Switzerland</b>	18.5%	11.4%	12.1%	13.1%
<b>Germany</b>	23.4%	10.9%	14.4%	14.5%
<b>Italy</b>	22.6%	10.7%	14.4%	8.2%

Source: Bloomberg, 12/31/2019

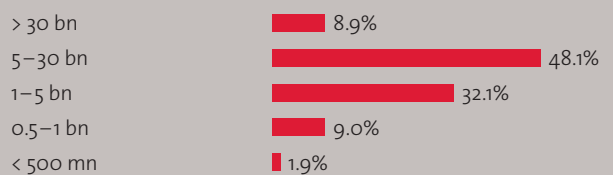
### Top 10 positions as of December 31, 2019



### Breakdown by sector as of December 31, 2019



### Breakdown by market capitalization (USD) as of December 31, 2019



### Multi-year comparison

	2019	2018	2017	2016	2015
Market capitalization at the end of the period (in CHF mn)	3 670.3	3 235.4	3 576.1	3 052.5	3 463.2
Net Asset Value at the end of the period (in CHF mn)	3 393.0	2 884.5	3 538.7	3 003.0	3 978.2
Number of shares (in mn) <sup>1)</sup>	55.4	55.4	55.4	55.4	59.3
Trading volume (in CHF mn)	2 004.2	2 610.7	2 864.7	3 204.5	6 265.2
Profit/(loss) (in CHF mn)	677.4	(471.3)	687.5	(802.1)	652.8
Closing price at the end of the period in CHF <sup>1)</sup>	66.25	58.40	64.55	55.10	58.45
Closing price (G) at the end of the period in EUR <sup>1)</sup>	61.40	52.00	55.68	51.70	53.99
Closing price (I) at the end of the period in EUR <sup>1)</sup>	61.00	52.00	55.20	51.60	54.18
Stock performance (incl. distributions) <sup>2)</sup>	18.5%	(5.2%)	22.9%	0.2%	28.1%
High/low share price in CHF <sup>1)</sup>	73.20/59.35	74.10/56.10	67.80/52.10	58.20/40.78	70.25/46.48
High/low share price in EUR <sup>1)</sup>	64.70/52.10	64.80/48.60	59.10/48.42	53.98/36.74	66.02/39.39
Premium/(discount) (annual average)	11.8%	9.7%	(2.5%)	(5.1%)	(17.6%)
Cash distribution / dividend in CHF (*proposal) <sup>1)</sup>	3.40*	3.05	3.30	2.75	2.90
Degree of investment (quarterly figures)	109.1%	108.4%	103.1%	109.9%	101.0%
Total Expense Ratio (TER) p.a. <sup>3)</sup>	1.26%	1.25%	1.27%	1.30%	1.29%

<sup>1)</sup> Five-for-one share split as at March 29, 2016 considered

<sup>2)</sup> All figures in CHF %, total return-methodology

<sup>3)</sup> based on market capitalization

## Solid performance

BB Biotech shares delivered a total return 18.5% in CHF and 23.0% in EUR in 2019, which was slightly less than the underlying portfolio's performance for the year. The total return in EUR was buoyed by the euro's weakening against the USD over the past year. The portfolio's net asset value (NAV) increased by 23.4% in CHF, 28.1% in EUR and 25.1% in USD.

## A large number of new drug approvals

We witnessed tremendous progress on the drug development front in 2019. In the fourth quarter of 2019, the US FDA approved 27 new drugs, bringing its total number of approvals for the year to 48. Almost half of these new drugs originated from biotech firms.

## Attractive dividend yield

The Board of Directors will propose a regular dividend of CHF 3.40 per share at the Annual General Meeting on March 19, 2020. This corresponds to a 5% return on the volume-weighted average closing price of BB Biotech shares in December of 2019 – consistent with the dividend policy introduced in 2013.

## Portfolio rebalanced

The strategic portfolio realignment initiated in the summer of 2018 was largely completed by the end of 2019. Positions in eight mostly large cap companies were exited and another six positions were closed as a result of M&A activity. Meanwhile, 14 new positions were opened in promising small and mid-sized companies. BB Biotech's current portfolio is superbly positioned to capture major innovation and growth opportunities within the biotech industry and to sustain its target return of 15% p.a. over the medium to long term.

## M&A as growth driver in 2020

In light of the attractive valuations of small and mid-sized biotech companies, M&A activity in the sector is likely to continue in 2020. Bristol-Myers Squibb's 70 billion-dollar acquisition of Celgene demonstrated that even large-cap companies can be a takeover target at today's attractive valuation levels.

PERFORMANCE BB BIOTECH SINCE INCEPTION (11/15/1993)

---

**2 371%**

(in CHF)

MARKET CAPITALIZATION AS OF 12/31/2019

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**CHF 3.7 bn**

(2018: CHF 3.2 bn)

DISTRIBUTION FOR FISCAL YEAR 2019 (PROPOSED)

---

**CHF 3.40**

(2018: CHF 3.05)

NUMBER OF PORTFOLIO COMPANIES

---

**33**

(as at 12/31/2019)

NUMBER OF TAKE-OVERS IN THE PORTFOLIO 2019

---

**3**

(Audentes, Celgene, Alder)

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**BB Biotech performed well in 2019 in a generally favorable market environment. The biotech sector made significant strides, with improving fundamentals driving M&A activity and generating a solid performance as the year came to a close. The investment team continued the process of realigning the portfolio that was initiated in 2018 to capture the sector's future growth opportunities.**

# 18.5%

## *Annual return*

### **Dear Shareholders**

During the last quarter of the year, major global equity indices extended their 2019 gains. Many markets achieved new all-time highs even in the face of lingering issues such as the US-China trade dispute, Brexit, and monetary conditioning. The Dow Jones (+25% in USD), Nasdaq Composite (+37% in USD), Dax (+25% in EUR), and SPI (+31% in CHF) indices all showed substantial gains. The Nasdaq Biotech Index (NBI) ended the year-end strongly, resulting in a 2019 total return of 25% in USD and was thus able to keep pace with the broader market's impressive gains.

A similar surge in approvals was achieved by the US FDA – releasing 21 new drugs in the fourth quarter 2019 alone, almost matching the number of approvals (27) granted during the preceding three quarters. Generalists drove negative fund flows for the sector even as biotech specialists enjoyed accelerated M&A activity in fields such as targeted oncology, genetic medicines and RNA-based medicines. Overall, the biotech sector may be poised to bring further upside opportunities in 2020.

For 2019, BB Biotech's total share return of 18.5% in CHF and 23.4% in EUR was slightly below the underlying portfolio performance. Weakening of the EUR versus the USD throughout the year created additional tailwind for Euro-denominated performance. The portfolio Net Asset Value (NAV) gained 23.4% in CHF, 28.1% in EUR and 25.1% in USD.

For the fourth quarter, BB Biotech's share price was up 7.7% in CHF and 8.5% in EUR. Due to the exclusion of BB Biotech from the EuroStoxx 600 on December 23, 2019, triggered by a change in sector classification, BB Biotech shares were unable to track the portfolio's upward trend. BB Biotech's Net Asset Value (NAV) for the same period tracked NBI index gains – increasing 17.5% in CHF, 17.7% in EUR and 21.1% in USD.

The consolidated fourth quarter 2019 data for BB Biotech indicates a net gain of CHF 505 mn versus 2018 fourth quarter loss of CHF 643 mn. The consolidated, full year 2019 data showed a net gain of CHF 677 mn compared to a net loss of CHF 471 mn for 2018.

### **Proposed expansion of the Board of Directors of BB Biotech**

With the nomination of Susan Galbraith, Head of Oncology Research and Early Development at AstraZeneca, and Mads Krosgaard Thomsen, Chief Science Officer at Novo Nordisk, the Board of Directors of BB Biotech AG will be enlarged to five members. Shareholders will be asked to elect these outstanding candidates at BB Biotech's Annual General Meeting on March 19, 2020. BB Biotech also announced that Prof. Dr. Klaus Strein will not be standing for re-election and the Board thanks Professor Strein for his excellent service to BB Biotech.

### **A proposed dividend of CHF 3.40 per share**

The Board of Directors will propose a regular dividend of CHF 3.40 per share at the AGM on March 19, 2020. Applied to the average share price of December 2019 – consistent with the dividend policy introduced in 2013 – this corresponds to a 5% dividend yield.

### **Portfolio adjustments in the fourth quarter 2019**

In the fourth quarter, BB Biotech exited four holdings: Audentes Therapeutics was acquired by Astellas at USD 60 per share, a 110% premium over the prior's day closing price (approximately USD 3 bn for the company). The position was sold in the last weeks of December 2019, generating approximately USD 85 mn in cash for the portfolio, and a profit of more than USD 50 mn for a one year investment. Celgene's acquisition by BMS was completed in November 2019. BB Biotech will manage the BMS shares it



received through this transaction from a tactical standpoint. Alder Biopharmaceuticals was acquired by Lundbeck for USD 18 per share in cash, a 79% premium over the prior day's closing price, plus a non-tradeable CVR of USD 2 per share. The remaining position in Gilead was sold. While Gilead continues to assert leadership in HIV treatment, the mis-step in its NASH program and the need for new pipeline assets leave its new leadership team with work to do. BB Biotech's historical success investing in Gilead remains one of the highlights of the last 15 years.

## *«BB Biotech had three acquisitions in its portfolio in 2019»*

During the fourth quarter, profits were also taken on investments such as Incyte, Crispr Therapeutics and Intra-Cellular. The cash was reinvested in targets associated with the strategic portfolio reallocation – focusing more on smaller and mid cap portfolio companies. BB Biotech took advantage of market conditions by investing more in Agios, Arvinas, Macrogenics, Scholar Rock, Wave Life Sciences and Kezar.

A new investment was made in Molecular Templates – a company which focuses on engineered toxin bodies (ETB), a potential next generation of immunotoxins. The company's lead program, MT-3724, is a first-generation ETB targeting CD20 and is in clinical development for B-cell malignancies. The company, together with its development partner Takeda, is also developing TAK-169, a second-generation de-immunized toxin linked CD38 targeting molecule for multiple myeloma patients.

### **Fourth-quarter portfolio update**

The fourth quarter 2019 provided multiple milestones for our portfolio holdings such as M&A activity, licensing deals, clinical news and regulatory action. Highlights in the fourth quarter were driven especially by licensing deals. Akcea, a majority-owned affiliate of Ionis Pharmaceuticals, and Pfizer announced that the companies have entered into a worldwide exclusive licensing agreement for AKCEA-ANGPTL3, an investigational antisense therapy being developed for the treatment of patients with certain cardiovascular and metabolic diseases. Under the terms of the agreement, Akcea and Ionis will receive a USD 250 mn upfront license fee, which will be split equally between the two companies. The companies are also eligible to receive development, regulatory, and sales milestone payments of up to USD 1.3 bn and tiered, double-digit royalties on annual worldwide net sales following marketing approval of AKCEA-ANGPTL3-LRx.

Clinical news flow in the fourth quarter was mixed. Myovant announced a high response rate in their positive phase III HERO study of once-daily, oral relugolix in men

with advanced prostate cancer. The primary efficacy endpoint was met, showing that the men achieved sustained testosterone suppression to castrate levels through 48 weeks. In addition, all six key secondary endpoints, including superiority to leuprolide, were met. The company an-

## *«Clinical news flow in the fourth quarter was mixed»*

nounced it would submit a New Drug Application (NDA) with the U.S. Food and Drug Administration (FDA) in the second quarter of 2020 and subsequent regulatory applications in Europe and Japan. Alnylam announced that the ILLUMINATE-A Phase III study of lumasiran, an investigational RNAi therapeutic targeting glycolate oxidase (GO) in development for the treatment of primary hyperoxaluria type 1 (PH1), met its primary efficacy endpoint and all tested secondary endpoints. Specifically, lumasiran met the primary efficacy endpoint of percent change from baseline, relative to placebo, in 24-hour urinary oxalate excretion averaged across months 3 to 6 (p less than 0.0001). The study also achieved statistically significant results for all six tested secondary endpoints (p less than or equal to 0.001). Lumasiran also demonstrated an encouraging safety and tolerability profile. Based on these results, Alnylam announced it would submit a New Drug Application (NDA) and file a Marketing Authorisation Application (MAA) for lumasiran in early 2020. Incyte announced positive results from the Novartis-sponsored pivotal Phase III REACH2 study evaluating ruxolitinib (Jakafi) in patients with steroid-refractory acute graft-versus-host disease (GVHD). The study met its primary endpoint of improving overall response rate (ORR) at Day 28 with ruxolitinib treatment compared to best available therapy. No new safety signals were observed, and the ruxolitinib safety profile in REACH2 was consistent with that seen in previously reported studies in steroid-refractory acute GVHD.

Negative clinical results were published by Sage and Wave Life Sciences. Sage Therapeutics failed to meet its primary endpoint in their Phase III study of SAGE-217 (MOUNTAIN study) in adults with major depressive disorder (MDD). The pivotal study did not meet its endpoint of a statistically significant reduction from baseline compared to placebo in the 17-item Hamilton rating scale for depression (HAM-D) total score at day 15. The company will meet with the FDA in the first quarter of 2020 to define a potential regulatory path for SAGE-217. One possibility is to file SAGE-217 based on the positive Phase III study for treating women with postpartum depression. Wave Life Sciences announced the discontinuation of development of suvodirsin for patients with Duchenne muscular dystrophy who have mutations amenable to exon 51 skipping. Interim clinical results showed for both doses of suvodirsin tested no change from baseline in dystrophin expression, as measured by western blot. Halozyme announced that

the HALO-301 study failed to meet the primary endpoint when testing PEGPH20 as first-line therapy for treatment of patients with metastatic pancreas cancer. Many investors had anticipated such an outcome, and the company's announcement that it would now focus its strategy on the ENHANZE drug delivery technology resulted in valuation gains for its stock.

*«Product approval milestones were highly positive for three BB Biotech portfolio holdings»*

In contrast to the clinical trial results, product approval milestones were highly positive for three BB Biotech portfolio holdings. Vertex announced the FDA approval of Trikafta (elexacaftor/ivacaftor/tezacaftor), the first triple combination therapy available to treat patients with the most common cystic fibrosis mutation. Trikafta was approved for patients twelve years and older who have at least one F508del mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) gene, which represents about 90% of the cystic fibrosis population. Alnylam announced an early FDA approval of their acute hepatic porphyria RNAi drug Givlaari, with a broad benign label. The company is rolling out novel value and prevalence based agreements to payors to facilitate reimbursement. The first commercial drug was launched at the end of 2019. Intra-Cellular, focused on the development of therapeutics for central nervous system (CNS) disorders, announced that Caplyta (lumateperone) has been approved by the FDA for the treatment of schizophrenia in adults. Caplyta is an oral, once daily administered drug. The company expects to initiate the commercial launch of Caplyta in March 2020. Schizophrenia is a serious mental illness impacting approximately 2.4 million adults in the United States. The clinical presentation of schizophrenia is diverse. Acute episodes are characterized by psychotic symptoms, including hallucinations and delusions, often requiring hospitalization. The disease is chronic and lifelong, often accompanied by depression and gradual deterioration of social functioning and cognitive ability. Patients with schizophrenia often discontinue treatment as a result of side effects such as weight gain and movement disorders.

**Outlook for 2020**

BB Biotech believes that 2020 will bring significant technology progress including new drug modalities to address many unmet medical needs. The investment team's asset allocation will not only focus on established areas – such as oncology, orphan diseases and neurological indications – but will also look at rapidly emerging technologies which promise the best therapeutic profile and economic value.

Set against exciting technological developments, the team expects continued debate around value assessment and structural change in the US healthcare system during the 2020 presidential election year. Attractive valuations of smaller and mid cap biotech firms will likely continue to enable M&A activity in the sector. The takeover of Celgene by BMS for USD 70 bn demonstrates that large cap firms may also be in play at these valuation levels. As with Gilead, BB Biotech has enjoyed a highly successful run of stock ownership and gains in Celgene for 15 years.

*«Sector fundamentals are exciting, the transaction momentum is expected to continue even in a US presidential election year»*

Investing in leading bioscience and the resulting healthcare innovation is a costly, lengthy and – for the uninitiated – risky process. BB Biotech's long-term horizon makes us an attractive investor and partner for many biotechnology firms – and the investment team believes that the growth case for biotechnology and for BB Biotech is as compelling as ever. The investment team anticipates that 2020 will be another banner year for new products worldwide and looks forward to more exciting news flow from our portfolio companies.

We thank you for the trust you have placed in the Company.

The Board of Directors of BB Biotech AG




Dr. Erich Hunziker, Chairman



Dr. Clive Meanwell



Prof. Dr. Dr. Klaus Strein



Dr. Thomas von Planta





## «Product approvals highlight significant revenue growth opportunities»

Registrational trial readouts will be one of the focal points for biotech investors in 2020. If positive, they will drive future product launches, resulting in cash flows enabling continued investments in the companies' research pipelines and catapulting them to the next level of their life cycle. For larger biopharma companies, acquisitions and licenses will continue to serve as an additional source of diversification and subsequent growth, and this dynamic is expected to be fueled by the innovation leadership of many smaller and mid cap companies.

On the flip side, as partisan behavior seemingly manifests in the US Congress throughout the 2020 election, key political topics such as the debate on drug pricing as well as changes to the US healthcare system will remain. However, we continue to believe that – despite the political situation having the potential to cause market uncertainty – innovation provided by the industry will improve quality as well as cost of individual care for society, thus justifying adequate pricing.

Esperion and MacroGenics are expected to receive their first drug approvals, turning research and development-stage companies into commercial biotechnology companies, an important step in the long journey across the S-curve and value appreciation. Esperion is expected to launch bempedoic acid for patients with symptomatic cerebrovascular disease (SCVD) in the first quarter 2020 while MacroGenics expects to achieve a late-2020 approval for Margetuximab to treat patients with metastatic HER2-positive breast cancer in combination with chemotherapy. Intercept anticipates the approval of obeticholic acid for NASH patients in summer 2020. Alexion is expected to add further indications to the Ultomiris label and will be measured by progress in converting current Soliris-treated patients over to Ultomiris. Adding the recently launched drugs and future approvals together, BB Biotech is confident that the plethora of approvals fortifies our confidence in the double-digit revenue growth of its portfolio.

# Outlook

# Biotechnology

### Recent and expected product approvals highlight significant revenue growth opportunities

A substantial focus for investors continues to be on the market success of newly introduced products and product classes. Categories of interest include the newly launched TTR amyloidosis knockdown products Onpattro (Alnylam) and Tegsedi (Akcea/Ionis) in the context of the recently introduced TTR stabilizer Tafamidis (Pfizer). Extended strong growth trajectories, such as achieved by Neurocrine with its continued impressive commercialization of Ingrezza for tardive dyskinesia, is expected to achieve a USD 1 bn revenue run rate in 2020.

Recently launched products will be closely monitored to determine whether they will meet full-year sales expectations. Vertex's Trikafta, approved by the FDA in late 2019, is expected to broaden its reach in the cystic fibrosis market by treating almost 90% of all patients and to sustain a multi-billion USD revenue expansion in the coming years. Intracellular guided for a pharmacy rollout of Caplyta in late first quarter 2020, a novel drug to treat adults with schizophrenia. Throughout 2020, companies such as

### Research pipeline investment supports future value creation

In 2019, 48 new products were approved in the US. Of these, 21 products were approved in the fourth quarter alone, a steep acceleration over the first nine months of 2019. Out of the 48 new approvals, 22 came for the pharmaceutical industry, closely followed by biotech companies with 17, and 9 by speciality pharmaceuticals, generics and diagnostic companies. The EU CHMP recommendations for approval totaled 30 new active substances in 2019, with 15 stemming from the large and speciality pharmaceutical industry and 10 from biotech companies.

We are particularly excited about development-stage companies that are investing in new technology platforms that provide a foundation for generating multiple candidates that could treat a variety of unique indications. These include our RNA-focused companies such as Ionis Pharmaceuticals, Alnylam Pharmaceuticals, Wave Life Sciences and Moderna. Genetic medicines companies in our portfolio include Crispr Therapeutics, Sangamo, Homology and Voyager Therapeutics. Protein degrada-

tion technologies are expected to offer new treatment options in cancer and immunological indications, which BB Biotech has invested in through Arvinas. The recent addition of Molecular Templates brings a novel antibody technology platform to our portfolio. Additional platforms and technologies will continue to be added in the near future.

### **Industry consolidation remains a key driver of growth**

Not only are smaller and mid cap companies potential acquisition targets. Large biotechnology companies – due to depressed and attractive valuations – received takeover offers as well. Three takeovers affected our portfolio in 2019. Further consolidation in the industry is likely to continue with many pharmaceutical companies' executive teams and large cap biotechnology companies looking to strengthen their product offering and gain access to new technologies as seen in recent deals within the genetic medicine field.

Besides full takeovers, licensing of late-stage clinical candidates is another important strategy for later-stage companies to add close to commercial-ready products to their product portfolios. In early 2020, Incyte and MorphoSys signed an attractive global collaboration for Tafasitamab, a CD19 targeting antibody for treating B-cell malignancies, with Incyte gaining exclusive commercialization rights outside of the US and a co-commercialization structure in the US.

### **Drug prices still in focus, regulatory environment remains favorable**

With 2020 being a US presidential election year, BB Biotech expects continued debate around US healthcare system reform and proposals on how to address rising drug prices and at the same time foster innovation and investments in the development of highly novel medicines. Our conviction remains that investor concerns about overly restrictive price control policies will eventually dissipate as the actual action taken proves to be less dramatic than many fear. Congressional debate continues around potential drug price legislation such as creating pricing transparency, delivering more generics, restructuring Medicare Part B and Part D, and even establishing an international price index (IPI). Besides Congress, we will closely follow changes sought by Alex Azar, who was appointed Secretary of Health and Human Services and has highlighted reduced drug costs and outcomes-based pricing for the Medicare segment as priorities for HHS. We also anticipate continued debate over the US Affordable Care Act, leading to changes that will likely reduce the pool of insured individuals through the repeal of the individual mandate. Indeed, repeal of the individual mandate will allow healthy and younger individuals to opt out of healthcare insurance plans without a financial penalty, which may exert pressure on premiums for those remaining on plans.

### **Key approvals and clinical trial results provide ample news flow**

Continued progress on the clinical data front will be of great importance for BB Biotech, with many important late-stage readouts certain to impact the valuation of our holdings. These include results in the second quarter from Myokardia's EXPLORER trial for mavacamten in patients with symptomatic obstructive hypertrophic cardiomyopathy and Argenx's ADAPT trial for efgartigimod in myasthenia gravis patients. Myovant will announce the outcome of the SPIRIT trial testing Relugolix in women with endometriosis. Another example for registrational data release is Agios' mitapivat for patients with pyruvate kinase deficiency by year-end 2020. In the immuno-oncology arena, Nektar is expected to publish initial results of bempedalsleukin in the PIVOT IO-001 study for patients with metastatic melanoma and in the PROPEL study for patients with first-line NSCLC. Exelixis, together with its development partner Bristol-Myers Squibb, will announce data for CheckMate 9ER, a combination study testing nivolumab with cabozatinib in previously untreated advanced or metastatic renal cell carcinoma, comparing the combination against sunitinib.

Among the highlights within BB Biotech's portfolio are the expected product approvals and launches from companies such as Alnylam, Esperion, Intracellular and Intercept. The highest interest and potential impact for the sector in 2020 will be driven by the FDA's decision on aducanumab, Biogen's candidate for treating patients with Alzheimer's disease.

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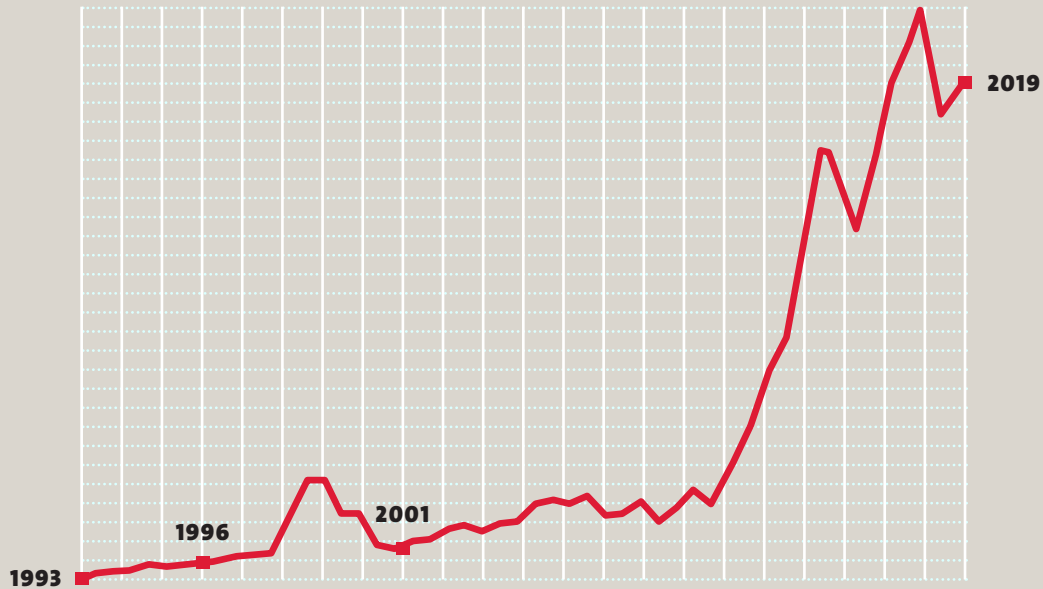
#### **PRODUCT APPROVALS 2019**

# **48**

(USA)

Modern biotechnology is one of the most important key technologies of the 21st century. The biotech sector ranks among the most attractive of all fast growing industries with a projected growth rate of more than 10% p.a. Total sector sales amounted to more than USD 140 billion in 2018 and are forecast to exceed USD 200 billion in 2022. In 2019 alone, 48 new drugs received regulatory approval; almost half of these products originated from biotech companies. Three highlights in sight.

BB Biotech total return since launch 1993: +2 371% (in CHF)



# 1996

## *A revolution in the treatment of AIDS: 70% reduction in mortality*

People who become infected with the pathogen that causes AIDS are living longer thanks to modern antiretroviral therapies from biotech labs. All in all, HIV patients can expect ten more years of life than predicted just 20 years ago, in many cases by taking just one tablet a day. There were 770 000 global deaths from AIDS in 2018 (UN-AIDS statistics), which is 33% fewer than in 2010. More

than three in five people with HIV – 23.3 million out of 37.9 million – are receiving antiretroviral therapy today. These blockbuster markets are toughly contested as innovative combinations continue to thrive. Among suppliers of medicines that have transformed HIV infection from a fatal to a chronic illness, Gilead has been the number one seller since 2007 and has gone on to launch three new drugs since 2015: Odefsey, Genvoya, and Descovy. Gilead was in BB Biotech's portfolio from 2003 to 2019.



# 2001

## *Scientific breakthrough: Human genome fully mapped for the first time*

After more than ten years of research, the Human Genome Project produced a full draft of the human genome for the first time in 2001. The sequencing of hundreds of thousands of individual genomes unlocked the genetic

causes of many diseases. This has a very real impact on treatment opportunities, including massive progress in the development of personalized medicine – in turn enabling the development of new and improved treatment options for serious illnesses such as cancer. Survival rates for myeloid leukemia have soared, to give just one example. 42% of all medicines under development today and 73% of all anticancer drug candidates are a product of personalized medicine. Scientists are hopeful that comparison of the human genome with that of other living creatures will reveal new insights into the cause of certain illnesses and deliver new treatment options.



# 2019

## *New technologies on a roll*

Important technological advances will facilitate new treatment modalities to address major unmet healthcare needs for many patients in the years to come. Accordingly, BB Biotech's investments are focused on breakthrough technologies that may deliver novel treatment methods with a promising therapeutic profile and economic benefit. BB Biotech is confident for instance that RNA-based medicines – now in early market launch stages for rare

and serious illnesses – will result in new products also being made available to larger patient populations in the coming years.

One example is Spinraza, a product to treat spinal muscular atrophy developed by BB Biotech's longtime investment, Ionis Pharmaceuticals. Since its launch in the US and Europe in 2017, the product has enjoyed one of the best market uptakes of any orphan disease therapy (expected sales for 2019 through Ionis's collaboration partner Biogen: over USD 2 bn). Potentially curative gene therapies requiring just one dose of treatment will likely be used to treat rare monogenic diseases in the near future.





## Board of Directors

The renowned Board of Directors of BB Biotech AG has many years of industrial and scientific experience.



### **Dr. Erich Hunziker**

Dr. Erich Hunziker has been on the Board of Directors of BB Biotech AG since 2011 and has been elected president in 2013. He previously served as CFO of Roche from 2001–2010. From 1983–2001 he held various executive positions at Corange, Boehringer Mannheim and, before joining Roche, at Diethelm-Keller-Gruppe, where he ultimately served as CEO. Erich Hunziker earned a PhD in Industrial Engineering from the Swiss Federal Institute of Technology in Zurich. Dr. Erich Hunziker is Chairman of the Board of Directors of Light Chain Biosciences AG, NovImmune SA, Entsia International AG and discoveric ag. Furthermore he is a member of the Board of Directors of LamKap Bio alpha AG, LamKap Bio beta AG and LamKap Bio gamma AG.



### **Dr. Clive Meanwell**

Dr. Clive Meanwell is Vice Chairman of the Board of Directors of BB Biotech AG since 2003. He founded The Medicines Company in 1996 and from then until January 6, 2020 he was a Member of the BoD and held a range of leadership positions including Chairman, Executive Chairman, CEO and CIO. From 1995–1996, he was a founding partner and managing director of MPM Capital L.P. He previously held various positions at Hoffmann-La Roche in Basel and Palo Alto, California. Dr. Meanwell received his MD and PhD from the University of Birmingham in the UK where he also trained in medical oncology.



### **Prof. Dr. Dr. Klaus Strein**

Prof. Dr. Dr. Klaus Strein has been on the Board of Directors since 2013. He was with Roche from 1998–2011, during which time he held various responsibilities, including head of pharma research activities in Germany and of global pharma research. From 1979–1998 he served in various positions at Boehringer Mannheim. He holds post-graduate degrees in chemistry and medicine from the University of Heidelberg, where he was also appointed Adjunct Professor. Prof. Dr. Dr. Klaus Strein is Chairman of the Board of Directors of LamKap Bio alpha AG, LamKap Bio beta AG and LamKap Bio gamma AG and a member of the Board of Directors of NovImmune SA and Light Chain Biosciences AG.

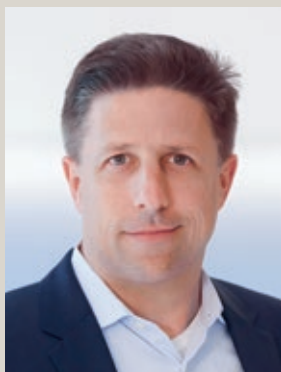


### **Dr. Thomas von Planta**

Dr. Thomas von Planta has been elected Board member of BB Biotech AG in 2019. Since 2006, he is owner/director of CorFinAd AG – Corporate Finance Advisory (M&A transactions and capital market financings). Previously he worked for Vontobel Group from 2002–2006 as Head of Corporate Finance and member of the extended executive board. Prior to that he was with Goldman Sachs from 1992–2002, lastly in London in the Equity Capital Markets Group / Investment Banking Division. He holds a degree in law from the University of Basel and University of Geneva (Dr. iur.), attorney at law. He is a member of the Board of Directors of Bâloise Holding AG and a member of the advisory board of Harald Quandt Industriebeteiligungen GmbH.

## Investment Management Team

A team of proven biotech specialists from Bellevue Asset Management AG with a successful track record takes care of investments in the most attractive biotech companies.



### Dr. Daniel Koller

Dr. Daniel Koller has been with Bellevue Asset Management since 2004 and was appointed Head of the Investment Management Team of BB Biotech AG in 2010. From 2001–2004 he was an investment manager at equity4life Asset Management AG and from 2000–2001 an equity analyst at UBS Warburg. He studied biochemistry at the Swiss Federal Institute of Technology in Zurich (ETH) and earned his doctorate in biotechnology at the ETH and Cytos Biotechnology AG, Zurich.



### Felicia Flanigan

Felicia Flanigan has been with Bellevue Asset Management as Senior Portfolio Manager since 2004. From 1999–2004 she was a biotech equity analyst at Adams, Harkness & Hill; from 1991–1999 a biotech equity analyst at SG Cowen. Felicia Flanigan holds an MBA from Suffolk University, Boston, and a BA in Communications from Boston College.



### Dallas Webb

Dallas Webb has been with Bellevue Asset Management as Portfolio Manager since 2006. From 2004–2006 he served as Senior Vice President and Equity Analyst at Stanford Group Company and held the same role at Sterling Financial Investment Group from 2003–2004. Prior to that, he was an equity analyst at Adams, Harkness & Hill. Dallas Webb has an MBA from Texas Christian University in Fort Worth, Texas, and a Bachelor of Science in Microbiology and Zoology from Louisiana State University.



### Dr. Stephen Taubenfeld

Stephen Taubenfeld has been with Bellevue Asset Management as Portfolio Manager since 2013. From 2009–2013 he was Senior Analyst at Iguana Healthcare Partners, of which he was a founding partner. From 2008–2009 he was a consultant with Merlin BioMed Group and from 2004–2008 he was M.D./Ph.D. Fellow in Neuroscience at Mount Sinai Hospital, New York. He holds an M.D. and Ph.D. in Neuroscience from Brown University School of Medicine.



### Dr. Christian Koch

Christian Koch has been with Bellevue Asset Management as Equity Analyst and Portfolio Manager since 2014. From 2013–2014 he was a sell-side pharma & biotech equity analyst at Bank am Bellevue in Küssnacht and from 2010–2013 a research associate at the Institute of Pharmaceutical Sciences, ETH Zurich. He holds a Ph.D. in Chemoinformatics & Computational Drug Design from ETH Zurich and an MS in Bioinformatics from Goethe University in Frankfurt.



### Dr. Maurizio Bernasconi

Maurizio Bernasconi has been with Bellevue Asset Management as Portfolio Manager since 2017. He joined Bank am Bellevue as a research analyst for pharma and biotech sector in 2014, prior to which he has worked as a chemist for SIGA Manufacturing, Ruswil. From 2009–2013 he doctorated in organic chemistry at the University of Basel. Maurizio Bernasconi holds an MS in Chemistry from the ETH Zurich.

BB Biotech invests in fast-growing biotechnology companies that are developing and marketing innovative drugs. It focuses on biotech companies whose products address areas of significant unmet medical needs and thus have above-average sales and profit-growth potential. Besides profitable large cap companies, BB Biotech is building up its investments in promising small and mid cap companies.

The team of investment experts is concentrating not only on established target areas such as oncology, orphan diseases and neurological indications, but also on the technologies of tomorrow that could lead to novel treatment methods with attractive therapeutic profiles and substantial economic rewards. These future technologies include RNA platforms and cell and gene therapies. A total return of 15% p.a. over a medium- to longer-term investment horizon is targeted.

The asset classes available to BB Biotech are direct investments in the shares of listed companies, equity interests in unlisted companies, corporate bonds, and options on a range of underlying assets. BB Biotech invests almost exclusively in stocks for liquidity and risk/return reasons. At least 90% of its shareholdings must be in listed companies, while always holding more than 50% of its assets

investment decisions. It can also turn to an extensive international network of physicians and specialists in individual sub-segments of the biotech industry for further support and advice. The Investment Management Team creates detailed financial models for all portfolio holdings and they must provide compelling arguments that these holdings have the potential to double in value over a four-year time frame. The team is guided by its convictions, not by benchmark considerations. Upside potential is driven in most cases by the power of innovation, the launch of new products for serious or significant illnesses, and successful company management. Each investment case is constantly monitored and evaluated within the scope of our stringent and disciplined risk management process and corrective action will be taken if and when necessary.

BB Biotech's investment portfolio will usually consist of between 20 to 35 biotechnology companies. There are established, large cap companies as well as small and mid cap companies in the portfolio. Smaller positions will be taken in innovative biotech companies with promising R&D pipelines. From a regional perspective, the US biotech sector has displayed a high level of innovation and so this regional bias is also reflected in BB Biotech's portfolio. The predominance of the US biotech industry can be traced to the country's stellar research clusters, industry-

# Investment *Strategy*

in equity investments. Corporate bonds are an alternative primarily when stock market trends are negative. Options on the stocks of portfolio companies can be bought and sold at opportune times and as a means of hedging currency exposure.

Exhaustive, multi-stage due diligence precedes the selection of individual investments. We must have a thorough understanding of every company we invest in. Before an investment is made, the team analyzes a company's financial statements in detail and assesses its competitive environment, R&D pipeline, and patent portfolio as well as its customers' perceptions of its products and services. Close contact with company executives is of high importance to us in this due diligence process, but also afterwards, as we believe that it takes strong leaders to achieve strong results.

BB Biotech builds on the long-standing experience of its distinguished Board of Directors and on the fundamental analysis of the experienced Investment Management Team of Bellevue Asset Management AG when making its

friendly regulatory frameworks and myriad financing options, among other factors.

New investments in small and mid cap companies will have a weighting of between 0.5% and a maximum of 4% to ensure that both upside potential and R&D risks are adequately addressed. Because it is an investment company, BB Biotech has the flexibility to increase portfolio weightings considerably over time as a position increases in value. Smaller positions may become a top holding as their business develops and milestones such as positive Phase III outcomes, drug approvals, the successful marketing of products, and a sustainable flow of profits are achieved. All positions and their valuations are continually monitored, taking into account their growth potential and other aspects, and will be reduced if and when appropriate.

**Securities as at December 31, 2019**

Company	Number of securities	Change since 12/31/2018	Local currency	Share price	Market value in CHF mn	In % of securities	In % of shareholders' equity	In % of company
Ionis Pharmaceuticals	7 994 955	(746 379)	USD	60.41	467.3	13.3%	13.8%	5.7%
Neurocrine Biosciences	3 228 074	(115 016)	USD	107.49	335.7	9.5%	9.9%	3.5%
Incyte	3 400 000	(408 322)	USD	87.32	287.3	8.2%	8.5%	1.6%
Vertex Pharmaceuticals	1 240 000	(130 445)	USD	218.95	262.7	7.5%	7.7%	0.5%
Esperion Therapeutics	3 727 964	335 000	USD	59.63	215.1	6.1%	6.3%	13.6%
Agios Pharmaceuticals	3 896 954	1 018 820	USD	47.75	180.1	5.1%	5.3%	5.7%
Alnylam Pharmaceuticals	1 600 000	28 611	USD	115.17	178.3	5.1%	5.3%	1.4%
Argenx SE	944 739	60 000	USD	160.52	146.7	4.2%	4.3%	2.2%
Alexion Pharmaceuticals	1 314 428	–	USD	108.15	137.5	3.9%	4.1%	0.6%
Halozyme Therapeutics	7 963 056	(359 804)	USD	17.73	136.6	3.9%	4.0%	5.4%
Radius Health	6 881 685	171 409	USD	20.16	134.2	3.8%	4.0%	14.9%
Moderna	4 817 781	32 100	USD	19.56	91.2	2.6%	2.7%	1.4%
Sage Therapeutics	1 280 104	(95 125)	USD	72.19	89.4	2.5%	2.6%	2.5%
Myokardia	1 264 913	387 647	USD	72.89	89.2	2.5%	2.6%	2.7%
Intercept Pharmaceuticals	696 976	121 257	USD	123.92	83.6	2.4%	2.5%	2.1%
Intra-Cellular Therapies	2 300 000	100 000	USD	34.31	76.4	2.2%	2.3%	4.2%
Myovant Sciences	4 815 109	1 217 227	USD	15.52	72.3	2.1%	2.1%	5.4%
Nektar Therapeutics	2 620 676	1 239 701	USD	21.59	54.7	1.6%	1.6%	1.5%
Bristol-Myers Squibb Co.	800 000	800 000	USD	64.19	49.7	1.4%	1.5%	< 0.1%
Arvinas	1 241 903	1 241 903	USD	41.09	49.4	1.4%	1.5%	3.2%
Exelixis	2 835 000	–	USD	17.62	48.3	1.4%	1.4%	0.9%
Macrogenics	4 519 159	1 235 887	USD	10.88	47.6	1.4%	1.4%	9.2%
Crispr Therapeutics	730 462	730 462	USD	60.91	43.0	1.2%	1.3%	1.2%
Akcea Therapeutics	2 448 948	62 477	USD	16.94	40.1	1.1%	1.2%	2.6%
Voyager Therapeutics	2 680 283	(185 558)	USD	13.95	36.2	1.0%	1.1%	7.2%
Scholar Rock Holding	2 634 466	1 354 488	USD	13.18	33.6	1.0%	1.0%	8.9%
Homology Medicines	1 612 122	1 612 122	USD	20.70	32.3	0.9%	1.0%	3.7%
Sangamo Therapeutics	3 850 000	2 500 000	USD	8.37	31.2	0.9%	0.9%	3.3%
Wave Life Sciences	2 402 858	937 856	USD	8.02	18.6	0.5%	0.5%	7.0%
G1 Therapeutics	721 925	50 000	USD	26.43	18.5	0.5%	0.5%	1.9%
Molecular Templates	1 295 687	1 295 687	USD	13.99	17.5	0.5%	0.5%	3.0%
Cidara Therapeutics	2 295 272	–	USD	3.84	8.5	0.2%	0.3%	6.9%
Kezar Life Sciences	1 550 669	732 237	USD	4.01	6.0	0.2%	0.2%	8.1%
Alder Biopharmaceuticals – Contingent Value Right	2 766 008	2 766 008	USD	0.88	2.4	0.1%	0.1%	
Bristol-Myers Squibb – Contingent Value Right	800 000	800 000	USD	3.01	2.3	0.1%	0.1%	
<b>Total securities</b>					<b>3 523.7</b>	<b>100.0%</b>	<b>103.8%</b>	
Other assets					30.9		0.9%	
Other payables					(161.6)		(4.8%)	
<b>Net asset value</b>					<b>3 393.0</b>		<b>100.0%</b>	
BB Biotech registered shares <sup>1)</sup>	–	–			–			

<sup>1)</sup> Correspond to the total of all own shares held including the second trading line

Exchange rate as at 12/31/2019: USD/CHF: 0.9676



## *Idea generation and pre-screening*

The investment universe for BB Biotech comprises about 1000 companies in the biotech industry worldwide. It includes large caps to microcaps and even later-stage private companies. The investment management team of Bellevue Asset Management AG monitors this industry actively.



In an initial phase the team identifies disease areas where major progress is being made, technological advances are promising, new mechanisms of action are being discovered or technology platforms that could be leveraged for multiple therapies are being developed.

To stay highly informed, the team talks to analysts, conducts interviews with doctors and specialists, attends medical conferences, reviews scientific literature, and visits companies on-site. The team also regularly evaluates the geographical allocation of its investments by visiting countries or areas that show interesting developments.

Once promising investment themes (disease area, technology, etc.) are identified, the universe is reduced from 1000 companies to about 300.



## *Due Diligence*

With the due diligence process the focus switches from themes to individual companies and products. Qualitative as well as quantitative screening criteria are applied. Again, doctors and specialists are consulted to learn more about different drug candidates. The objective is to understand the innovation behind a product, to see what benefit the product could provide for the patient, but also if the product makes sense from a health economic standpoint.

BB Biotech tries to focus on products that are novel and essentially reduce healthcare costs because of their higher efficiency or better safety. The time horizon for these investments is mid- to long-term. Another important point is the quality of the management, which is assessed in discussions during company meetings.

For about 100 companies the team has created and maintains financial models that help to assess the financial position of the company and get a sense of market opportunities or to review the clinical data companies have produced and presented. At the end of this phase the team discusses the investment cases and selects the most promising ideas.







## *Investment decision and portfolio construction*

If the team feels comfortable with an investment idea, the analyst that covers the company prepares a detailed investment proposal. This includes a financial model, a summary of the clinical data the company has presented, the

investment rationale with potential upside and downside as well as the proposal of the size of the investment and at what price range the investment should be built up. This proposal is then presented to the Board during the monthly calls, where the Board of Directors and the team engage in an active discussion about the potential investment. The Board secures compliance with the investment strategy.

BB Biotech also holds biannual strategy meetings, where the Board and the Investment Management Team review strategic developments in the biotech industry and meet with the management of the portfolio holdings or of potential investments.

The investment managers build the position in a relatively short time, provided that the price levels are within the approved range for investment. This results in a biotech portfolio of around 20 to 35 companies.



## **IV**

### *Monitoring and risk management*

Once the portfolio is established, the monitoring and risk management processes begin. The development of the drug candidates is monitored closely with new clinical data becoming available at medical conferences. The validity of the investment case is continuously assessed as the team regularly meets with management and keeps the financial model updated.

If there is a substantial change in the underlying value of a company that requires action, the team will inform the Board to increase the position, or to exit it, depending on what the reasons for the change are.

Additionally, the portfolio managers may adjust the positions in the portfolio by buying when prices are lower than the Net Asset Value estimated with the help of financial modeling or by selling a part of the position on strength, if a stock looks relatively overvalued. However, the Board is always involved in major changes. The portfolio is also monitored with the help of risk management software.



# Change of *strategy*

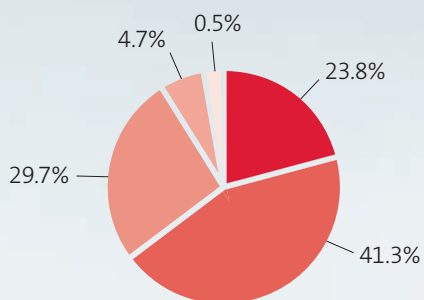
Dr. Daniel Koller  
Head Investment Management Team



In 2018, BB Biotech decided to exit positions in large-cap stocks and to focus more of its investments on small and mid-sized companies. Dr. Daniel Koller explains the reasoning behind this shift in strategy.

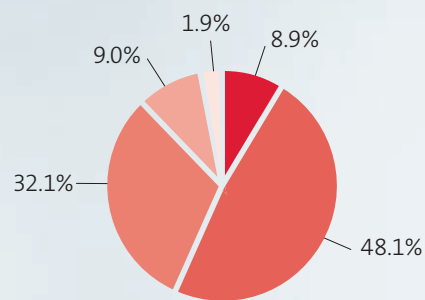
## Q2 2018

In mid-2018, holdings in large caps with a market capitalisation of more than USD 30 billion accounted for almost one quarter of BB Biotech's portfolio.



## Q4 2019

At the end of 2019, the proportion of large caps in the portfolio had fallen to below 10%. Mid and small caps make up the bulk of the portfolio.



■ > 30 bn ■ 5 bn – 30 bn ■ 1 bn – 5 bn ■ 500 mn – 1 bn ■ < 500 mn

**Mr. Koller, why did you make the decision to change strategy in mid-2018?**

As an investment company, it is our duty to act in the best interests of our shareholders. The most important metric in this regard is the mid- to long-term target return, which we have set at 15% p.a. Our primary goal is to achieve this target return in a sustainable manner over a long-term period. Bearing that in mind, we came to the conclusion in 2018 that our large cap investments would no longer produce the required sales and earnings growth to meet that goal. Meanwhile, our focus was increasingly shifting to novel treatment approaches such as RNA, cell and gene therapies. Most of the companies that are active in these therapeutic areas happen to be small or mid-sized players.

**What portfolio changes did you make in 2019 as a result of this shift in strategy?**

We're pleased that, for all intents and purposes, we were able to complete the portfolio rebalancing exercise in 2019. After announcing the change in strategy, we closed positions in eight companies, most of which were large caps, and six other companies are no longer in the portfolio as a result of M&A activity. Meanwhile, 14 new positions were opened in promising small and mid-sized companies. I'm confident that our portfolio is now well positioned to benefit from the biotech industry's major innovation and growth themes. Companies that had been in the portfolio for years – Celgene, Gilead, Novo Nordisk and Regeneron, to name a few – were sold during the past year. We achieved an aggregate profit of CHF 1.2 billion over the holding periods of these stocks alone.

**Is it hard to let go of stocks that have been in the portfolio for so long? Don't you feel a sentimental attachment to long-standing core investments?**

That's a justified question. Our goal is to generate an above-average total return over a medium- to longer-term investment horizon. Looking at BB Biotech's own performance, we certainly succeeded in doing so over the past five years – we achieved an annual return of nearly 15%, well above the approximately 3.5% p.a. return for the Nasdaq Biotechnology Index. This kind of performance is only possible by persistently focusing on high-growth biotech companies that are pioneering new generations of drug treatments. These high-innovation companies are most likely to be found in the small and mid cap segment, on which we have increasingly focused the portfolio through our strategic realignment over the past year or so.

**What about portfolio risks? Compared to large caps, many of the new companies you've invested in are relatively young companies with a short operating history. What stage of development are these companies generally in when you first invest in them?**

We are convinced that smaller companies are better and more successful at developing novel products and platforms. After all, nearly half of today's new drug approvals originate from small labs. The challenge when investing in the biotech sector is correctly assessing new scientific developments as well as the risks associated with medical and clinical developments. There are other factors to consider, too, such as regulatory hurdles, pricing negotiations and a product's market positioning. The consequences of success and failure are magnified by the biotech industry's high capital intensity; good or bad news can cause a company's stock to skyrocket or plummet and lead to uncertainty. That's why it's so important to build a portfolio that is well diversified in terms of indication areas, the stage of corporate or pipe-

line development and market cap – and to constantly review and rebalance it. Intense, meticulous analysis describes our approach; we seek to gain a high level of expertise. If we don't have an expert understanding of a particular topic or area, we won't invest in it. Our very concentrated portfolio reflects this approach. It will never contain more than 35 stocks. We don't try to cover as much of the biotech sector as possible; instead, we want to achieve a maximum concentration of innovative capacity through our selective stock-picking.

**What about stock market valuations? How does the biotech sector compare to other sectors at the end of 2019?**

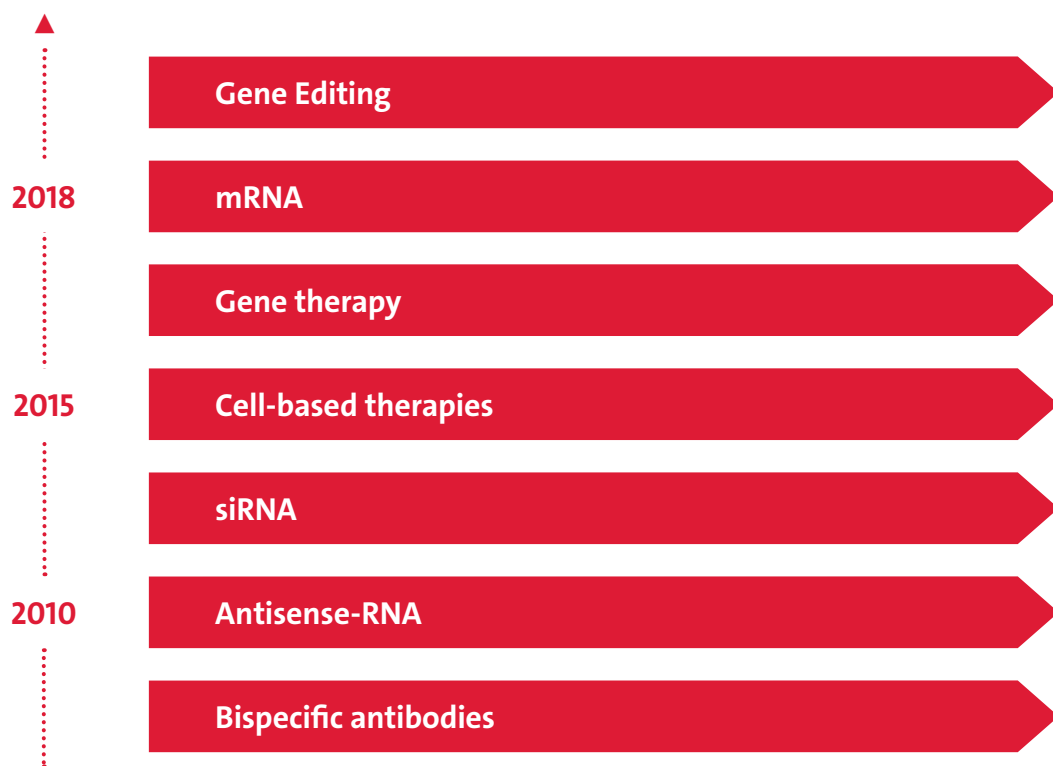
That's interesting. It seems that most of the investors who are active in the biotech sector today are specialized and not generalist investors. This is probably because defensive stocks recently attracted such large inflows of investor funds while political discussions in the US may have prompted some investors to either hold back on investing in biotech or exit the sector altogether. That explains today's valuation gap despite the still double-digit sales growth of the biotech sector. Looking at the MSCI World Healthcare sub-sectors, biotech is trading on a P/E of 17 compared to 23 for the pharma stocks and 34 for medtech stocks.

**What about the latest political discussions in the US?**

As usual before any US presidential election, the healthcare sector is an important talking point. Candidates stake out their positions and that means a lot of talk about healthcare policy, drug prices and so on. We observed this during the legislative session just before Donald Trump was elected president; much of the rhetoric about healthcare costs and drug prices seemed exaggerated and overly emotional.

## The «new biotech world» – novel therapeutic approaches

A range of new technologies takes center stage as BB Biotech pivots its portfolio to include more mid and small cap companies that are poised for a breakthrough with their therapeutic approaches and, in some cases, have already obtained their first regulatory approvals.



### Gene Editing

Genome editing is a relatively new method designed to cut DNA very precisely and then modify it, enabling specific genes to be rewritten or edited. A new approach called CRISPR using «genetic scissors» is causing quite a stir. The CRISPR/Cas9 method allows scientists to exchange specific bases in the genome and repair, replace or remove entire genes without introducing any foreign DNA into the genome. The advantage of this approach is that just a single intervention might be enough for a complete cure. The big challenge to the clinical use of genome editing is how to translate the benefits to living organisms in-vivo.

Health authorities (FDA in the US and EMA in Europe) are supporting and promoting new treatment approaches. The growing number of successful clinical trials utilizing genome editing technology has been accompanied in recent years by a growing number of successful IPOs in this segment. BB Biotech is invested in Crispr Therapeutics, a genome editing company.

### mRNA

This novel approach allows the manufacture of proteins that patients are unable to make themselves because of genetic defects in their genome. mRNA therapies introduce a messenger RNA from outside to make specific proteins.

Moderna has the broadest development pipeline in the new field of mRNA therapeutics. The most advanced product is being tested as a melanoma vaccine in Phase II clinical trials. Other Moderna clinical candidates are undergoing clinical trials as mRNA therapeutics in immuno-oncology and as vaccines for cancers and viral diseases like Zika. BB Biotech was already involved in private equity financing transactions for Moderna prior to its initial public offering in December of 2018, which raised more than USD 600 million for the company, making it the biggest IPO in the history of the biotech sector.

## Gene therapy

Gene therapies aim to deliver a healthy copy of a gene into the cell nucleus of patients with a defective copy of that gene. The host cells are then able to make important proteins, unlike before the treatment.

In view of the increasing viability of gene therapies, BB Biotech opened several small positions in this treatment area in recent years. These include a US company named Voyager Therapeutics specializing in therapies to treat neurological disorders. Another newcomer to the portfolio is Audentes Therapeutics, which is developing a method to deliver a healthy copy of the MTM1 gene into muscle cells. The drug is targeted for approval in XLMTM, a rare genetic neuromuscular disorder that is fatal if left untreated and for which no curative treatment options are currently available. The company was acquired by Astellas in 2019.

## Cell-based therapies

Cell-based therapies are based on the principle of genetically modifying the patient's own T cells in a laboratory and then returning them to the patient. Approaches of this kind have recently proven their value in hematologic malignancies such as lymphoma and leukemia. The first cell-based therapies were approved by the FDA in 2017.

The front runners include two biotech companies which were part of BB Biotech's portfolio until their acquisition. Gilead Sciences for instance acquired Kite Pharmaceuticals in October 2017, the month in which the latter's cell-based therapy (Yescarta) had received FDA approval for the treatment of diffuse large B-cell lymphoma (DLBCL) in the USA. The second cell-therapy company BB Biotech was invested in, Juno Therapeutics, was taken over by Celgene in January 2018. Since the portfolio positions in large caps have been sold after the strategy change in 2018, there is currently no company in the portfolio that deals with cell-based therapies.

## siRNA (small interfering RNA)

Small interfering RNA is based on the same principle as antisense RNA, the aim being to stop the production of pathogenic proteins. Like antisense RNA, siRNA molecules are short RNA fragments. Unlike antisense RNA, however, they are double-stranded. Interaction with a multiprotein complex named RISC breaks down the pathogen-coding messenger RNA (mRNA). siRNA pioneers include US company Alnylam, which BB Biotech has been investing in since 2013. Alnylam was granted approval for the first small interfering RNA drug in 2018. Onpattro treats transthyretin amyloidosis (ATTR), an inherited disorder in which abnormal proteins build up in the tissues, possibly resulting in loss of organ function with potentially fatal consequences. Another five products are in advanced stages of clinical development, and an approval decision by the US FDA is expected for one of them in February 2020.

## Antisense RNA

The market breakthrough of RNA therapeutics has made it possible to intervene in the genetic code and address the root causes of all sorts of medical conditions. Common to all RNA technologies is their ability to block the synthesis of certain disease-causing proteins in various different ways or to enable the synthesis of proteins that would not otherwise be produced by the patient. The antisense approach seeks to block the synthesis of pathogenic proteins generated by genetic defects in the genome. More specifically, antisense RNA is single-stranded RNA that is complementary – or antisense – to the finished pathogenic protein-coding messenger RNA (mRNA). The resultant double-stranded RNA is recognized by the person's immune system as foreign and broken down, meaning that pathogenic proteins can no longer be produced. Our long-time core holding Ionis Pharma is the undisputed number one in this field. Ionis currently has about 30 drug candidates in various stages of clinical development. The most commercially successful product so far is Spinraza for the treatment of spinal muscular atrophy.

## Bispecific antibodies

The therapeutic effect of antibodies can be reinforced if a bispecific antibody is generated from the components of two different monoclonal antibodies. One arm of this protein molecule binds to tumor antigens while the other docks onto immune cells. The simultaneous binding allows immune cells to target and bind to cancer cells directly. The antibody uses this double binding to activate the body's T-cells, initiating an immune response with the aim of killing off the target cell. Bispecific antibodies are now an integral part of anticancer immunotherapy. There are about 70 bispecific antibodies in clinical development at present. The first bispecific antibody was approved by the FDA in 2014. Another BB Biotech portfolio investment, MacroGenics, focuses on developing bi- and multispecific antibodies for the treatment of liquid and solid tumors based on its proprietary antibody platform.

### GENE THERAPIES IN CLINICAL STUDIES

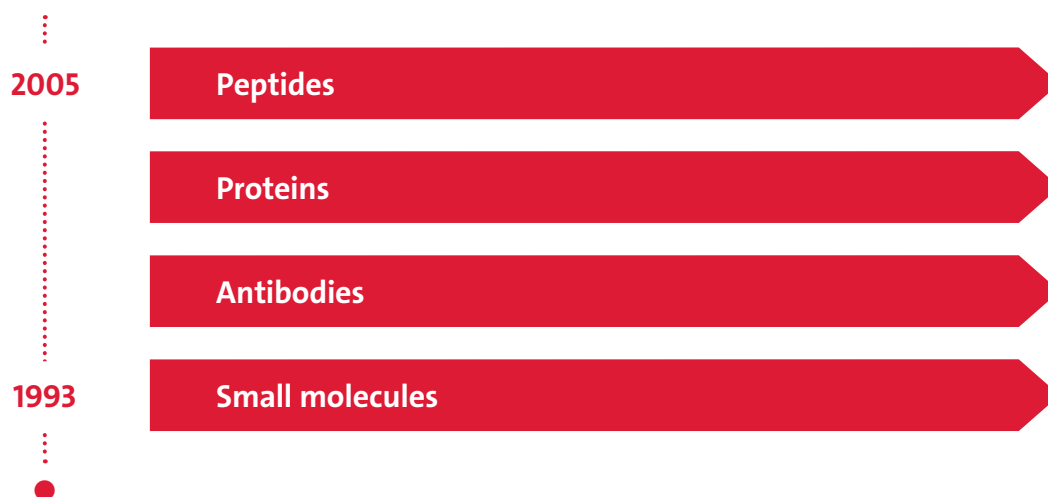
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(2020)



## Classic pharmaceutical and biotech approaches

Four biopharmaceutical processes have emerged since the early 1980s as a starting point for the development of drugs that target the molecular causes of diseases, rather than simply alleviate their symptoms.



### Peptides

These short amino acid chains control a multitude of functions in the human body as signaling molecules. Radius Health, a BB Biotech portfolio company, developed a peptide for treating postmenopausal osteoporosis. This peptide mimics a protein called PTH that is critical for regulating calcium homeostasis in bone. In postmenopausal women, the parathyroid gland produces too much PTH, leading to an imbalance between bone loss and bone formation. The aim of Radius Health's peptide drug is to restore homeostasis while promoting bone regeneration and preventing bone loss. This drug with the brand name Tymlos was approved by the FDA in 2017 and already generated sales of more than USD 100 mn in 2018.

### Proteins

Therapeutic proteins consisting mainly of amino acids were the first biologics to receive regulatory approval to treat diseases. The first recombinant protein was human insulin in 1982, marking the start of an evolution that has seen biologic drugs become established as a viable alternative to conventional medicines produced using combinatorial chemistry. A major advantage of proteins is their long half-lives. While most chemistry-based drugs need to be taken daily, protein-based active substances have much longer dosing intervals, several months in some cases. Therapeutic proteins may be enzymes, hormones, vaccines or coagulation factors. Alexion is a company in BB Biotech's portfolio that has two protein-based drugs in the market, Strensiq and Kanuma.

### Antibodies

Antibodies represent a class of therapeutic proteins that have achieved major market breakthroughs in the last 20 years. Produced by white blood cells known as B-cells, these protein molecules are characterized by high-affinity binding to specific molecular target structures that have been identified as causing a particular disease. Among the portfolio companies investigating therapeutic antibodies are Alexion, a leader in complement inhibition, and Argenx, a Belgian company with a proprietary platform that it is using to develop therapeutic antibodies for the treatment of cancer and severe autoimmune diseases.

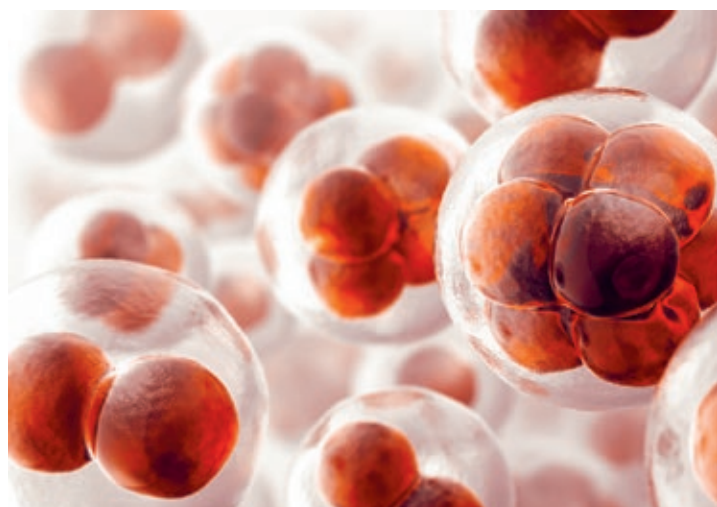
### Small molecules

Small molecule drugs with their simple chemical structures will continue to play a major role in global healthcare and can easily be taken by patients at home in tablet form. The antiviral therapies developed by Gilead Sciences are a prime example of the small-molecule approach. Gilead became one of the world's premier biotech companies by developing and commercializing antiviral medicines, first for the human immunodeficiency virus (HIV) and then for the hepatitis C virus (HCV). Novel HCV treatments available only since late 2014 were the first to offer a complete cure for this hitherto hard-to-treat infectious disease and were generating billions in sales shortly after launch.

The cystic fibrosis drugs developed by Vertex, a BB Biotech portfolio company, are another example of successful

small-molecule research and development. Cystic fibrosis is the most common autosomal recessive hereditary disease and occurs when production of a protein called CFTR (cystic fibrosis transmembrane conductance regulator) is either defective or absent. The effects are dramatic, resulting in the buildup of a thick, sticky mucus in the lungs and digestive system. Patients typically die from comorbidities between the age of 40 and 50.

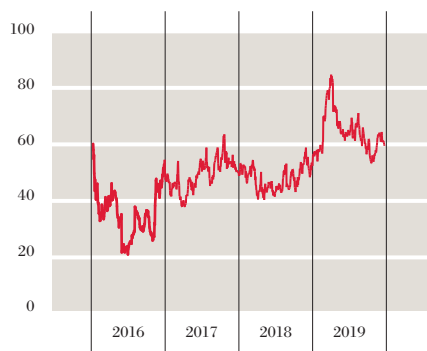
Vertex has successfully launched four drugs to treat this condition during the past few years and been instrumental in helping some 70 000 patients around the world to lead an almost normal life.



MARKET CAPITALIZATION

8.5 bn

(In USD as at 12/31/2019)



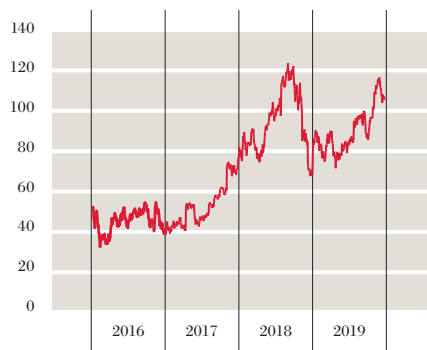
**Ionis Pharmaceuticals**

Ionis Pharmaceuticals is the leader in the space of antisense, with over 30 compounds in development using this technology. Antisense allows for the control of protein production at the genetic level. Our focus and investment strategy revolve around the technology platform, which has demonstrated significant progress. Spinraza (partnered with Biogen) was approved in late 2016 following two positive Phase III studies in spinal muscular atrophy, and had a very strong launch throughout 2017, 2018 and 2019. Tegsedi, partnered with Akcea, for hereditary transthyretin amyloidosis polyneuropathy, was approved in the US and EU in 2018. Our focus going forward is on the company's next-generation technologies such as 2.5 and LICA. Thus, Ionis remains an important and truly innovative investment in our portfolio.

MARKET CAPITALIZATION

9.9 bn

(In USD as at 12/31/2019)



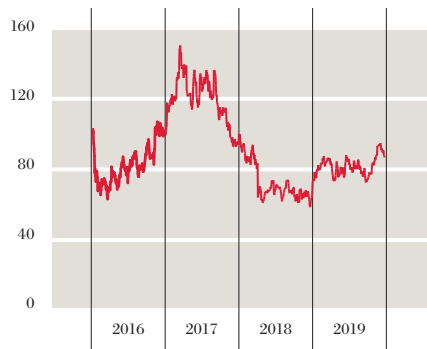
**Neurocrine Biosciences**

Neurocrine is a biopharmaceutical company with a focus on women's health and CNS disorders. Neurocrine received approval for Ingrezza (Valbenazine) for tardive dyskinesia in mid-2017 and launched the product in the US with continued growth driven by underlying patient and physician demand. Tardive dyskinesia is a condition where patients have involuntary movements that cannot be controlled. Its second product is Elagolix, which is an oral GnRH antagonist partnered with Abbvie and approved for endometriosis with approval for uterine fibroids expected in the second quarter of 2020. Endometriosis is a condition where part of the endometrium grows outside of the uterus leading to severe pain, painful intercourse, and bleeding. Uterine fibroids is a condition that can lead to painful menstruation and excessive bleeding, and potentially surgical removal of the uterus. Neurocrine is also in a collaboration with Voyager for Parkinson's disease and other neurological indications

MARKET CAPITALIZATION

18.8 bn

(In USD as at 12/31/2019)



**Incyte**

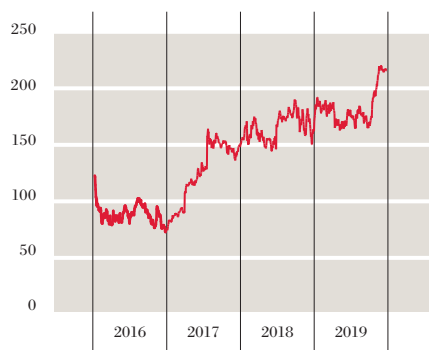
Incyte is focused on hematologic disorders, inflammatory disorders, and cancer. Their marketed product is Jakafi (Ruxolitinib), an oral JAK-2 inhibitor that received approval for myelofibrosis (MF) and polycythemia vera (PV) in 2011 and 2014, respectively. We estimate that MF and PV represent a USD 3+ bn market opportunity in the US and Europe. Phase III trials in graft-versus-host-disease (GvHD) are also ongoing, and the 2019 approval of Jakafi for steroid-refractory acute GvHD could add another USD 200 mn in sales. In November 2009, Novartis licensed ex-US rights to Jakafi. A second-generation JAK-2 inhibitor, Baracitinib, posted positive data from several Phase III trials in rheumatoid arthritis and the product was launched as Olumiant in 2018. Incyte receives royalties from partner Eli Lilly. Progress on other cancer compounds in its pipeline, including an FGFR inhibitor for cholangiocarcinoma and bladder cancer and a c-Met inhibitor for lung cancer, as well as the development Ruxolitinib cream for atopic dermatitis and vitiligo, continues.

Source: Bloomberg

MARKET CAPITALIZATION

56.3 bn

(In USD as at 12/31/2019)



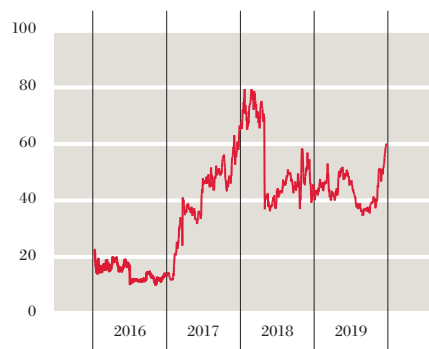
Vertex Pharmaceuticals

Vertex's core focus is cystic fibrosis. CFTR potentiator Kalydeco was launched in the US and Europe in 2012 for a subgroup of patients with cystic fibrosis (CF). While the initial market opportunity is limited to around 5% of the patient population, we believe that sales could reach USD 1.0 bn with the inclusion of other small patient populations on the label. Positive Phase III results with the combination of Kalydeco and CFTR corrector VX-809, released in June 2014, enabled Vertex to begin to target the roughly 45% of patients who are homozygous for the most common mutation in the US and Europe in 2015. With this label inclusion, we expect sales of Kalydeco and the Kalydeco/VX-809 combination to reach approximately USD 4.0 bn. The company has also developed correctors that can be combined with Kalydeco and VX-661 to target the remaining patients who are heterozygous for the mutation. Data from Phase III trials were positive and a triple regimen received early approval in 2019, bringing the total market opportunity for its CF products to 10+ bn.

MARKET CAPITALIZATION

1.6 bn

(In USD as at 12/31/2019)



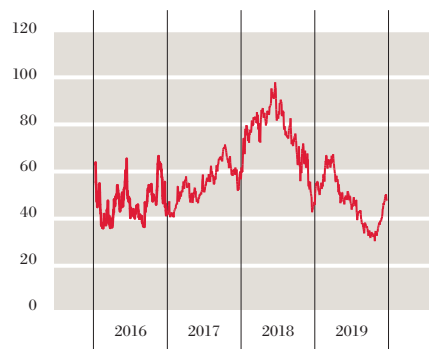
Esperion Therapeutics

Esperion Therapeutics is focused on the development of treatments for cardio-metabolic diseases. Bempedoic acid is the only clinical asset and has now completed its registrational Phase III program. The drug has shown LDL cholesterol reduction levels of around 17–18% on top of treatment with statins, around 25% as monotherapy and 35–50% in combination with ezetimibe. In contrast to the recently approved subcutaneously administered PCSK9 antibodies, bempedoic acid poses a convenient and more economic once-daily oral solution. In parallel Esperion will submit an NDA for a fixed-dose combination with ezetimibe. Primary markets for both the mono- as well as fixed dosed combination therapy will be the statin-intolerant population as well as additional treatment for patients whose LDL cholesterol levels are not sufficiently controlled with a maximum tolerated statin. Regulatory approval in the US and in Europe are expected in the first and the second quarter of 2020. Esperion is adequately financed to launch the drugs by themselves in the US, in Europe partner Daiichi Sankyo will be responsible (USD 300 mn upfront, additional milestones and royalties for Esperion).

MARKET CAPITALIZATION

3.3 bn

(In USD as at 12/31/2019)



Agios Pharmaceuticals

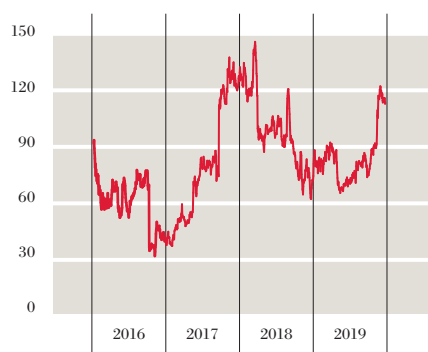
The two most advanced oncology programs of Agios Pharmaceuticals are targeting mutations in the isocitrate dehydrogenase 1 and 2 (IDH1 and IDH2) enzymes, which are implicated in hematologic malignancies and solid tumors. Data with IDH2 inhibitor Idhifa (AG-221) were compelling and due to the high response rate and well-defined group of patients who benefited, the drug was given an accelerated approval in August 2017. We estimate the worldwide market opportunity for Idhifa at USD 750 mn for acute myeloid leukemia (AML). Bristol-Myers/Celgene has worldwide rights to Idhifa, and Agios will receive milestones and an estimated 15% royalty on sales. Data with IDH1 inhibitor Tibsovo (AG-120) in AML were also promising and the product was approved in July 2018. Results with Tibsovo in a rare solid tumor called cholangiocarcinoma were positive and approval for this indication should be granted by the end of 2020. Meanwhile, development of Tibsovo for low-grade glioma continues. Finally, the company is developing AG-348, a novel compound for the treatment of pyruvate kinase deficiency that reported compelling proof-of-concept data, and Phase III trials should yield data in 2020.

Source: Bloomberg

MARKET CAPITALIZATION

12.8 bn

(In USD as at 12/31/2019)



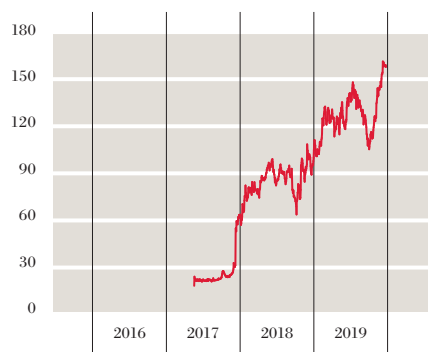
**Alnylam Pharmaceuticals**

Alnylam Pharmaceuticals is the market leader in RNA interference (RNAi) therapeutics. This treatment approach selectively blocks the synthesis of specific disease-causing proteins. Their first marketed therapy, Onpattro (patisiran), received approval in 2018 for hATTR amyloidosis with polyneuropathy. Another recent RNAi approval came in 2019 with Givlaari (givosiran) for the treatment of acute hepatic porphyrias. Alnylam has a broad pipeline of candidates, including four programs that have advanced to the late clinical or registrational development stage. These include fitusiran, which pursues a revolutionary approach in the treatment of hemophilia and rare bleeding disorders, lumasiran, which received breakthrough status for primary hyperoxaluria, and vutrisiran, a subcutaneously administered RNAi treatment for hATTR amyloidosis utilizing their enhanced stabilization chemistry (ESC) GalNAC delivery system. Alnylam continues to support its collaboration with The Medicines Company (recently acquired by Novartis) in their advancement of inclisiran, which investigates RNAi disruption of PCSK9 for the treatment of hypercholesterolemia and offering unprecedented convenience over other PCSK9 antibody therapies.

MARKET CAPITALIZATION

6.9 bn

(In USD as at 12/31/2019)



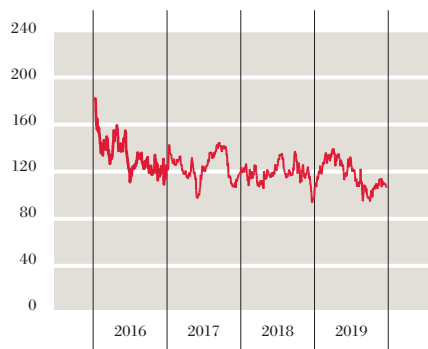
**Argenx SE**

Argenx is a Belgian clinical stage small cap biotechnology company developing targeted antibody therapies through its multiple antibody platforms. The company's lead asset, ARGX-113, has proven to be efficacious in proof of concept clinical study in two IgG-mediated autoimmune diseases such as myasthenia gravis and ITP. The company has been pursuing an aggressive clinical development with four clinical trials readout over the next 18 months. Most awaited news flow is the Phase III readout in MG patients awaited for the second half of 2020. A solid balance sheet and experienced management rounds the company's profile. Argenx can be considered an antibody platform company targeting novel scientific pathways in indications with high unmet medical need with moderate competition and innovation in the last decades.

MARKET CAPITALIZATION

23.9 bn

(In USD as at 12/31/2019)



**Alexion Pharmaceuticals**

Alexion is developing drugs for rare disorders. Its lead product Soliris was approved in the US and Europe in 2007 for paroxysmal nocturnal hemoglobinuria (PNH) and we expect sales in PNH to reach about USD 2.0 bn. Atypical hemolytic uremic syndrome (aHUS) is the next indication for which Soliris gained approval in the US and Europe in 2011. We estimate it adds another USD 2.0 bn market opportunity for Soliris. Other indications such as myasthenia gravis and neuromyelitis optica could add an additional USD 1.0 to 2.0 bn in sales. To maintain its dominance, Alexion is developing a next-generation Soliris, Ultomiris (ALXN-1210), which has an improved dosing profile and is now approved for PNH and aHUS, with additional indications expected to follow. To diversify the revenue base away from Soliris, the company received approval of a novel compound for hypophosphatasia, Asfotase Alfa, in March 2015 and the product has become a meaningful contributor to revenue. In addition, Alexion gained Kanuma for lysosomal acid lipase (LAL) deficiency via its May 2015 acquisition of Synageva. Continuing its aggressive business development efforts, the company acquired Achillion and formed collaborations with Eidos and Stealth in 2019, adding to the 2018 acquisitions of Wilson Therapeutics and Syntimmune.

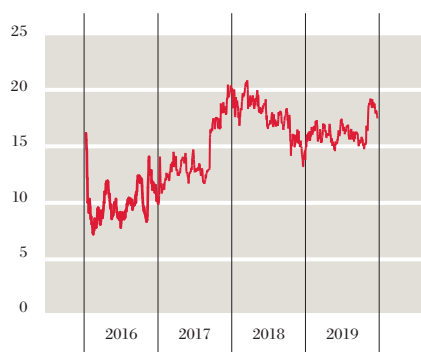
Source: Bloomberg



MARKET CAPITALIZATION

2.6 bn

(In USD as at 12/31/2019)



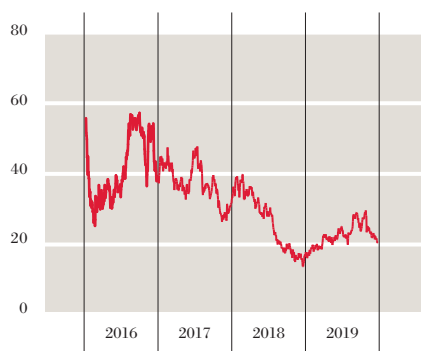
Halozyne Therapeutics

Halozyne Therapeutics is a biopharmaceutical company based on the Enhance (rHuPH2o) platform. Enhance relies on partnerships with pharmaceutical companies that use Halozyne’s rHuPH2o to prepare subcutaneous formulations of intravenous therapies. The company receives upfront milestone payments as well as a steady flow of royalties. Partnered products include blockbusters such as Herceptin and Rituxan as well as future products such as Darzalex, fixed dose combination of Perjeta and Herceptin, Opdivo, efgartigimod or AXLN-181o. Halozyne is aggressively pursuing a return of capital to shareholders through share buyback programs.

MARKET CAPITALIZATION

930 mn

(In USD as at 12/31/2019)



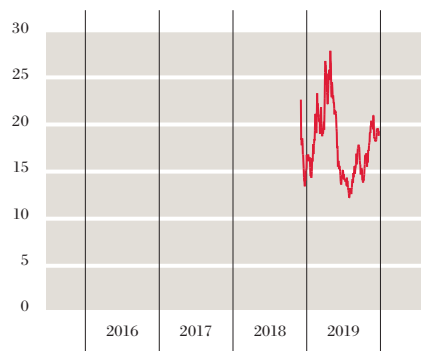
Radius Health

Radius Health is a company focused on women’s endocrinology and osteoporosis. The company currently markets Tymlos (abaloparatide), a synthetic human PTHrP analogue. Tymlos’ faster onset of action and reduction in fractures in nonvertebral sites like the hip and wrist versus Eli Lilly’s Forteo are differentiating and have steadily allowed it to capture significant market share. Radius received approval in 2017, and we expect 2020 to be a year of continued Tymlos growth and reimbursement as well as pipeline execution. Importantly, Radius is developing a transdermal patch formulation which could greatly enhance the outcomes in women with osteoporosis. Transdermal data presented to date has shown a meaningful improvement in its profile, and we expect a pivotal study to read out in the latter half of 2021. Elacestrant, a selective estrogen receptor degrader (SERD), is in Phase III development for estrogen-receptor-positive breast cancer. The company is currently in late stage talks with potential partners and plans a near-term exit from oncology in order to strengthen its focus on endocrinology and bone health.

MARKET CAPITALIZATION

6.5 bn

(In USD as at 12/31/2019)



Moderna

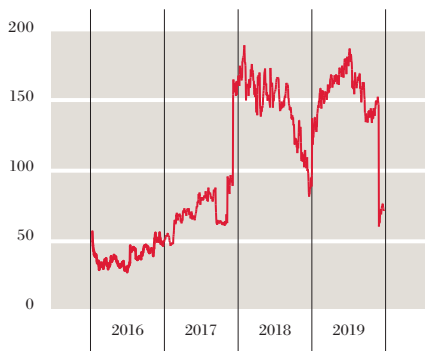
Moderna is pioneering a new class of medicine made of messenger RNA. Moderna recently gathered a lot of attention through the record-breaking IPO, which raised over USD 600 mn in December 2018. A substantial amount of the USD 3.0 bn of total capital raised since inception in 2011 has been invested in what is now the leading mRNA technology platform in order to be able to quickly drive development candidates into the clinic on a broad front of therapeutic and prophylactic applications. Their pipeline now includes over 20 development candidates, with 10 of them in the clinic, for mRNA-based vaccines as well as treatments in diverse therapeutic areas. Moderna recently presented key derisking data for their CMV vaccine program as well as for an mRNA encoded chikungunya antibody as a surrogate for rare disease application. In our view, the key programs that will be reading out clinical data within the mid-term include the rare liver disease MMA and PPA, the proprietary vaccines in congenital CMV and hMPV+PIV3, the intratumorally injected cytokine cocktail OX40L+IL23+IL36 gamma, the personalized cancer vaccine and early data on the VEGF Phase II during CABG-surgery.

Source: Bloomberg

MARKET CAPITALIZATION

3.7 bn

(In USD as at 12/31/2019)



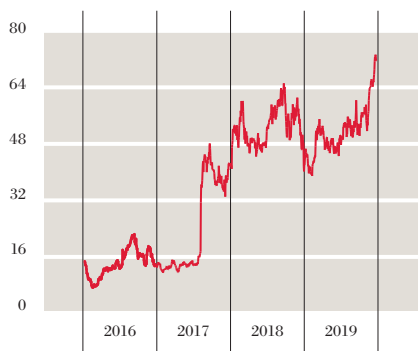
Sage Therapeutics

Sage Therapeutics is a clinical-stage biopharmaceutical company focused on developing therapies for CNS disorders utilizing their GABA-A receptor-targeted proprietary platform. The company's lead therapy, Zulresso (brexanolone), was approved in 2019 as an intravenous treatment for post-partum depression (PPD). Zulresso has shown rapid and durable efficacy, which sets it apart from all classes of drugs currently used in the field of depression and mood disorders. Sage is also developing an oral, follow-on version of Zulresso, called SAGE-217, which recently delivered positive Phase III data in PPD, and further supported by a successful Phase II study in major depressive disorder (MDD). Several ongoing Phase III trials in MDD are expected to read out in 2020/21, after which the company may file a complete application for approval in both PPD and MDD. Sage has diverse neurology and neuropsychiatry franchises – with SAGE-324 being investigating in essential tremor, epilepsy and Parkinson's disease, and SAGE-718 in Phase I development in cognitive disorders and Huntington's disease.

MARKET CAPITALIZATION

3.4 bn

(In USD as at 12/31/2019)



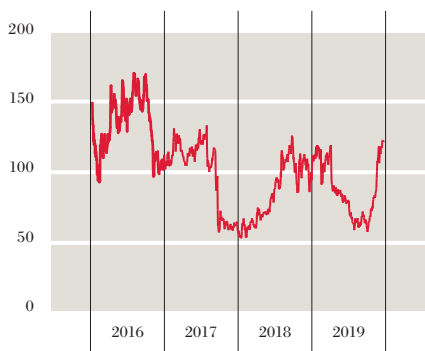
Myokardia

Myokardia is one of only a few small biotech companies in the cardiovascular disease area. The company's initial focus is on the treatment of inheritable cardiomyopathies, a group of rare, genetically driven forms of heart failure that result from biomechanical defects in cardiac muscle contraction. The most advanced pipeline asset is mavacamten, an allosteric inhibitor of cardiac beta myosin function that is being investigated in obstructive hypertrophic cardiomyopathy (oHCM). The company posted intriguing Phase II results not only showing direct improvement in biomarkers (up to 15% reduction in ejection fraction, up to 90% reduction in LVOT gradient) but also an increase of up to 17% in exercise capacity and an improvement in symptoms (1 class NYHA improvement on average). A single Phase III trial aiming at exercise capacity and symptom improvement has been initiated with an expected readout in early 2020. Further the company is pursuing the development of mavacamten in non-obstructive HCM as well as the second asset (MYK-491) that is being developed for genetic DCM (dilated cardiomyopathy).

MARKET CAPITALIZATION

4.1 bn

(In USD as at 12/31/2019)



Intercept Pharmaceuticals

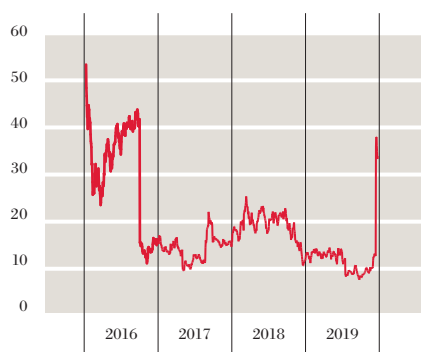
Intercept Pharmaceuticals is focused on the development of bile acid analogs for the treatment of liver diseases. This disease area primarily includes highly prevalent non-alcoholic steatohepatitis (NASH) as well as the orphan diseases primary biliary cirrhosis (PBC) and primary sclerosing cholangitis (PSC). Intercept's lead product is Ocaliva, a first-in-class farnesoid X receptor (FXR) agonist, was approved in the US and Europe for PBC in 2016. As a second and commercially far more attractive indication, Intercept has posted positive pivotal trial for NASH, which is expected to be approved in early 2020. NASH, being an obesity and metabolic syndrome-linked disease, has the potential to take on epidemic proportions in western and emerging societies over the coming years. It is projected to be the leading cause of costly liver transplants and liver cancer by 2020. With currently no drug approved, there clearly is an unmet medical and health economic need for new treatments. Intercept's Ocaliva is the only positive pivotal trial to date and the only one to have shown an anti-fibrotic effect on liver histology, on the flipside there are some pruritus-related tolerability worries with the drug.

Source: Bloomberg

MARKET CAPITALIZATION

1.9 bn

(In USD as at 12/31/2019)



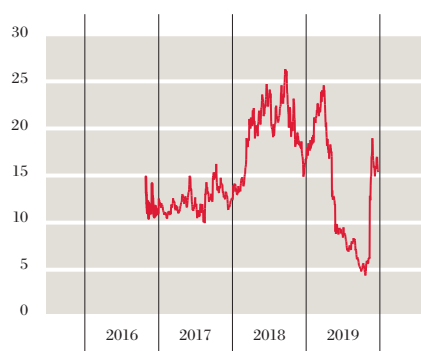
**Intra-Cellular Therapies**

Intra-Cellular Therapies is a biopharmaceutical company developing treatments for disorders that affect the central nervous system. Their wholly owned lead therapeutic asset candidate is Caplyta (lumateperone), a 5-HT<sub>2A</sub> serotonin receptor antagonist that also modulates dopamine and serotonin transporters, which won FDA approval in late 2019 for the treatment of acute schizophrenia. Caplyta could prove highly differentiated from other anti-psychotics due to its ability to modulate multiple neurotransmitter pathways simultaneously. This was demonstrated by two positive registrational trials which showed strong efficacy and placebo-like safety. Tolerability and compliance on current schizophrenia therapies is challenging due to a range of motor and metabolic side effects, which is where Caplyta has proven to be differentiated. Intra-Cellular is also evaluating lumateperone in several Phase III trials for the treatment of bipolar depression as well as behavioral disturbances associated with dementia including Alzheimer’s disease. The company also has a selective PDE-1 inhibitor platform, currently evaluating ITI-214 in a variety of neurological, cardiovascular and immune system diseases.

MARKET CAPITALIZATION

1.4 bn

(In USD as at 12/31/2019)



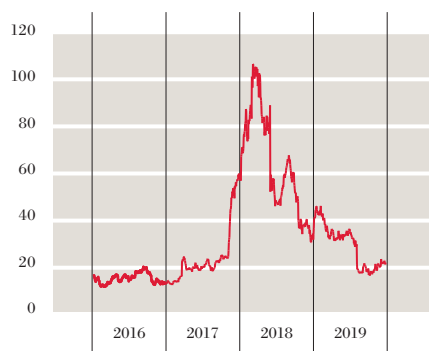
**Myovant Sciences**

Myovant is a biopharmaceutical company with a focus on endocrinology in women’s and men’s health. Its lead candidate, Relugolix, is an oral GnRH antagonist in Phase III development for endometriosis. Positive Phase III data have been announced in uterine fibroids and advanced prostate cancer. Endometriosis is a condition where part of the endometrium grows outside of the uterus leading to severe pain, painful intercourse, and bleeding. Uterine fibroids is a condition that can lead to painful menstruation and excessive bleeding, and potentially surgical removal of the uterus. Advanced prostate cancer is cancer of the prostate that continues to grow despite castration and/or radiation. Partner Takeda announced positive data from two Phase III trials in uterine fibroids in Japanese women, further validating Relugolix’s mechanism of action. We expect data from the two Phase III trials in endometriosis in early 2020. Myovant owns worldwide rights outside of Asia.

MARKET CAPITALIZATION

3.8 bn

(In USD as at 12/31/2019)



**Nektar Therapeutics**

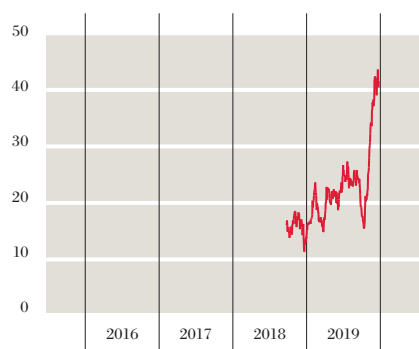
Nektar Therapeutics is focused on developing novel drugs for oncology, autoimmune disease, and chronic pain. The most important product in the pipeline is NKTR-214, a CD122-biased agonist designed to achieve broader efficacy, better safety, and an improved dosing schedule than IL-2 with its prodrug design and sustained signaling. Initial results from the dose-escalation portion of the Phase I/II trial with NKTR-214 plus PD1 inhibitor Opdivo, as well as data from an extension cohort of melanoma patients, showed evidence of activity and a favorable safety profile. Specifically, there was a 53% overall response rate and a 24% complete response rate in first-line melanoma patients who received the combination. Encouraging results were also shown in kidney and bladder cancer, and data from larger cohorts of patients with these tumor types are due in 2020. Meanwhile, a large pivotal program targeting these tumors is underway with partner Bristol-Myers, and we look for first results in melanoma at the end of 2020.

Source: Bloomberg

#### MARKET CAPITALIZATION

# 1.6 bn

(In USD as at 12/31/2019)



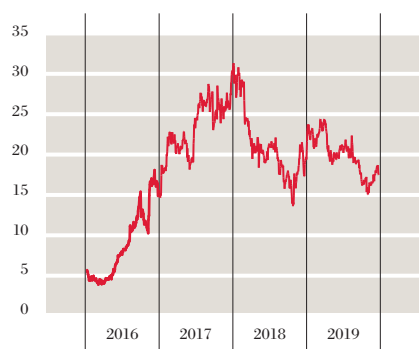
#### Arvinas

Arvinas is the leader in the development of novel small molecules designed to facilitate targeted protein degradation. The company's pipeline relies on the PROTACs (PROtein TArgeting Chimera) technology, trying to harness the cell's natural «garbage disposal» system for damaged/unneeded proteins and redirecting it to specifically degrade a target protein. ARV-110, Arvinas's lead product candidate, is an oral PROTAC that degrades the androgen receptor to treat castration-resistant prostate cancer (CRPC). An open-label Phase I dose-escalation study is ongoing with preliminary efficacy results awaited in the first half of 2020. The second clinical asset of the company, ARV-471, is an oral PROTAC targeting the estrogen receptor (ER) protein, for the treatment of metastatic ER positive/HER2 negative breast cancer. The start of Phase I dose-escalation trial in patients has occurred in the third quarter of 2019, with results awaited during 2020. Despite the early stage of development, Arvinas has already three partnerships in place. In 2015, Genentech signed a collaboration to develop an undisclosed number of PROTACs for up to USD 650 mn. In January 2018, Arvinas partnered with Pfizer for up to USD 830 mn and in June 2019, Bayer signed a collaboration for up to USD 685 mn in pharma and crop science space.

#### MARKET CAPITALIZATION

# 5.4 bn

(In USD as at 12/31/2019)



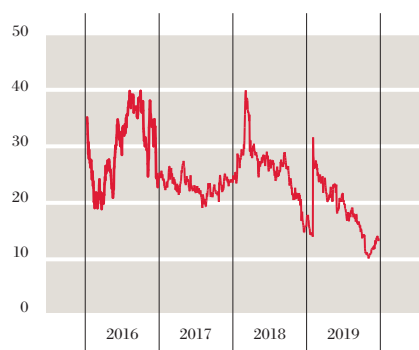
#### Exelixis

Exelixis is a biotechnology company focused on oncology. The company has one of the most potent tyrosine kinase inhibitors (TKI) on the market. Cabozantinib is approved for the treatment of all stages of renal cell carcinoma (RCC; kidney cancer). Additionally, a Phase III study in second-line hepatocellular carcinoma (HCC; liver cancer) was stopped early due to a positive survival benefit, and was added to the label in January 2019. Cabozantinib is also approved for medullary thyroid cancer. Importantly, the drug is being tested in various tumor settings with immune-oncology agents, which can add further, substantial value. Exelixis partnered a second TKI, cobimetinib, with Roche that is approved for the treatment of metastatic melanoma. Finally, having reached profitability, Exelixis is now at a point where it can invest more aggressively in its internal pipeline, which should create value in the future.

#### MARKET CAPITALIZATION

# 532 mn

(In USD as at 12/31/2019)



#### MacroGenics

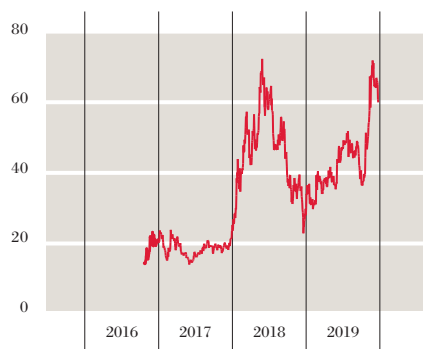
MacroGenics has multiple compounds in clinical development that were generated using its propriety Fc-optimization technology that simultaneously reduces/enhances binding to inhibitory/activating FcγRs, thus dramatically increasing antibody-dependent cellular cytotoxicity (ADCC), and its DART (Dual-Affinity Re-Targeting) platform. The company believes its DART platform has overcome the challenges of construct instability and short half-lives encountered by other dual-specific antibodies by incorporating proprietary covalent disulfide linkages and particular amino acid sequences that efficiently pair the chains of the DART molecule. This results in a structure with enhanced manufacturability, long-term structural stability, and the ability to tailor the half-lives of the DARTs to their clinical needs. In 2020, the company hopes to file and receive approval of its first product, Margetuximab for HER2+ metastatic breast cancer, and report Phase II results on multiple pipeline compounds for cancer.

Source: Bloomberg

MARKET CAPITALIZATION

3.7 bn

(In USD as at 12/31/2018)



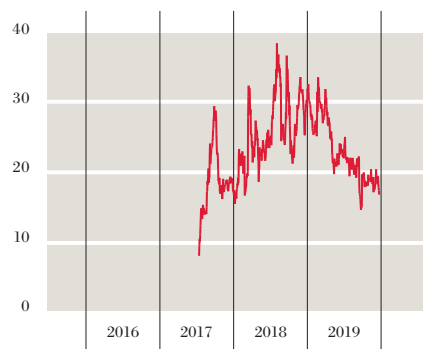
**Crispr Therapeutics**

Crispr Therapeutics AG is a company with the main part of its operations in Boston, MA. The company focuses on the development of transformative genetic medicines for serious diseases using its Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)/Cas9 gene-editing platform. CRISPR/Cas9 can be programmed to cut, edit and correct disease-associated deoxyribonucleic acid (DNA) in a patient's cell. Among the CRISPR companies, Crispr Therapeutics is unique in being the first to have entered the clinic (in late 2018), initially focusing on ex vivo applications. CTX-001 is in the clinic in Europe for transfusion-dependent beta-thalassemia and in the US for sickle cell disease (profit sharing for both programs with Vertex), promising data from first patients showing successful editing, engraftment and clinical improvement have been presented. Crispr Therapeutics has retained full rights for its allogeneic CAR-T programs, they are specifically pursuing CD19, BCMA and CD70 as initial targets and have entered the clinic in late 2019. Crispr further pursues in vivo programs in partnership with Vertex (DMD, DM-1, CF), on its own through the former Bayer joint venture named Casebia as well as a regenerative medicines pact with Viacyte to de-immunize a synthetic pancreas device with gene editing technology.

MARKET CAPITALIZATION

1.6 bn

(In USD as at 12/31/2019)



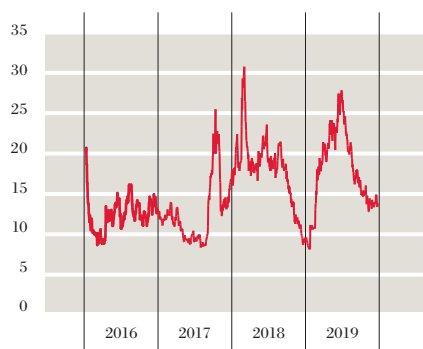
**Akcea Therapeutics**

Akcea was spun out of Ionis Pharmaceuticals and is developing antisense drugs to treat rare and severe diseases. Its lead product is Tegsedi which was launched in late 2018 for the treatment of hereditary transthyretin amyloidosis, a rare and severe disease. The company received a complete response letter for Waylivra for the treatment of familial chylomicronemia syndrome, a rare lipid disorder, and is pursuing a path forward with the FDA. Akcea also has a pipeline of next generation lipid products based on its LICA technology which allows for much lower dosing and higher potency. ANGPTL3-Lrx, partnered with Pfizer, is in a Phase II study for hypertriglyceridemia and is also being evaluated in fatty liver diseases such as NAFLD. Akcea has two LICA programs, one is partnered with Novartis for larger cardiovascular diseases, APO(a)-Lrx. The other is wholly owned by Akcea, APOCIII-Lrx for patients with elevated risk factors for cardiovascular disease. Ionis remains a majority shareholder of Akcea.

MARKET CAPITALIZATION

517 mn

(In USD as at 12/31/2019)



**Voyager Therapeutics**

Voyager is a clinical-stage biotech company focused on developing novel genetically targeted therapies to treat CNS diseases. In collaboration with Neurocrine, their lead asset, VY-AADC, is an AAV-based gene therapy with the objective of increasing the expression of the enzyme responsible for converting levodopa to dopamine (AADC, L-amino acid decarboxylase) in the brains of Parkinson's disease patients. VY-AADC is currently enrolling patients in a Phase II trial, which will serve as the first of two sham-controlled studies for registration. A Phase III study to begin in 2020 will serve as the second pivotal trial. The company is also developing other proprietary AAV vectors targeted at increasing expression of a key gene in Friedreich's ataxia, delivering monoclonal antibodies, or silencing/knocking down genes using microRNA delivery in diseases like monogenic SOD1 familial ALS and Huntington's disease. Voyager's discovery engine has generated programs in five CNS indications, and the company has built an in-house, state-of-the-art production facility for manufacturing AAV vectors.

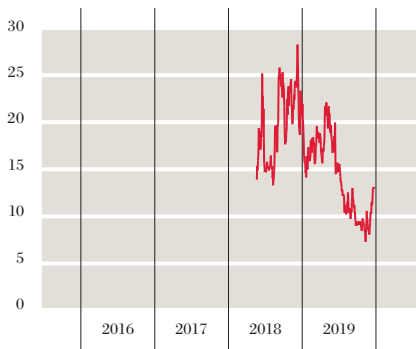
Source: Bloomberg



MARKET CAPITALIZATION

391 mn

(In USD as at 12/31/2019)



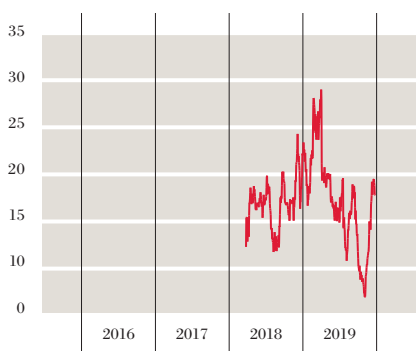
Scholar Rock Holding

Scholar Rock is a biotech company with a platform based on the understanding of the extracellular activation of growth factors. By targeting the pro and latent forms of the growth factors with antibodies, not the active/mature factor (given the very high degree of similarity in amino acid sequences in the active sites across the TGF-beta superfamily), the company believes it can avoid the off-target toxicities that have plagued this field historically. Its lead compound is SRK-015, a monoclonal antibody targeting pro myostatin and latent myostatin, is designed to inhibit the activation of myostatin thereby promoting muscle growth and function. The initial indication is later onset spinal muscular atrophy (type 2 and 3) where it can potentially be used in combination with Spinraza and other therapeutics as its mechanism is complimentary, not competitive. Phase II, interim proof-of-concept data were positive with additional data expected in 2020. The platform technology is also focused on TGF-beta 1 in the IO space as well as fibrosis. The fibrosis indications have been partnered with Gilead. The oncology study will begin in 2020.

MARKET CAPITALIZATION

911 mn

(In USD as at 12/31/ 2019)



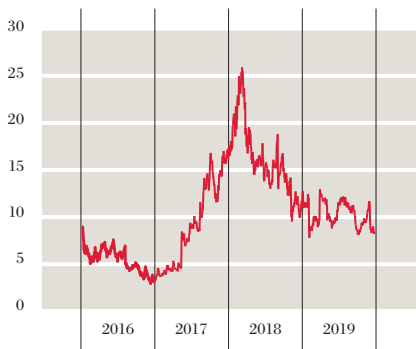
Homology Medicines

Homology owns a proprietary platform based on AAV vectors derived from human CD34+ cells. The company is building both a gene therapy and gene editing pipeline based on this technology which they licensed from City of Hope. Its lead program is HMI-102 which is an AAVHSC15 vector being developed for classic phenylketonuria (PKU) patients. PKU is an inborn error of metabolism where there are mutations in the PAH gene resulting in the inability to metabolize Phe, which can result in severe neurological impairment. Initial proof of concept data from a Phase I/II study showed a dose response in Phe reduction. The first gene editing program HMI-103 leverages the same delivery vehicle (AAVHSC) as its gene therapy relative HMI-102, but excludes a promoter and flanks the transgene with two homology arms to drive integration of the transgene into a specified region by homologous recombination. This poses an inherent safety advantage in comparison to other gene editing technologies that have to create single- or double-strand breaks in the patient DNA by cutting with an endonuclease (Cas9 or Fok-I), which mainly trigger error-prone non-homologous end joining (NHEJ) for repair as well as have higher associated risks of off-target cutting and on-target effects (large genomic rearrangements or deletions). The drawback is lower editing efficiency due to lack of endonuclease cutting.

MARKET CAPITALIZATION

970 mn

(In USD as at 12/31/2019)



Sangamo Therapeutics

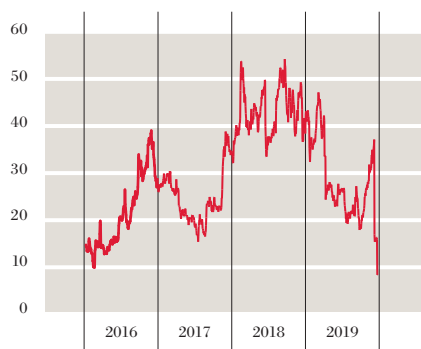
Sangamo Therapeutics is uniquely positioned as the almost exclusive developer of Zinc-finger-based genomic editing (ZFN). After initial disappointments with the ZFN in vivo applications, the company has pushed the reentry into the clinical with ZFN 2.0 to the end of 2020. Sangamo's lead asset now is a classic gene therapy approach for hemophilia A (Phase III initiated with Pfizer) through the formulation expertise that the company gained while delivering ZFN (AAV6 capsid with AAV2 promoter/genome), which is followed by a wholly owned clinical program for Fabry's disease. Further optionality from partnered projects include ex vivo collaborations with Sanofi (sickle cell disease and beta thalassemia) and Kite (allogenic CAR-T), gene regulation ZFP without nucleases (Shire and Pfizer) as well as wholly owned CAR-Treg program Tx-200 in kidney transplants.

Source: Bloomberg

#### MARKET CAPITALIZATION

# 274 mn

(In USD as at 12/31/2019)



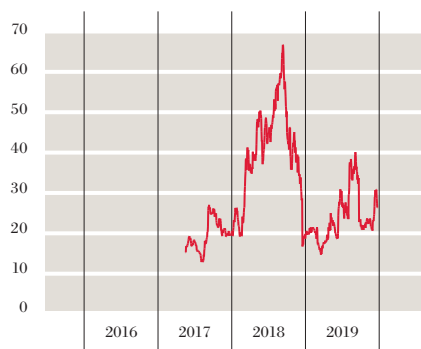
#### Wave Life Sciences

Wave is a leader in the space of stereochemistry, with an initial focus on antisense oligonucleotides (ASOs) and exon skipping. In simple terms, stereochemistry refers to the three-dimensional structure of a molecule and how this affects its chemical properties. Current ASOs can contain hundreds to hundreds of thousands of various enantiomers («stereomixture»), many of which do not contribute to efficacy, but could be causing toxicity. Wave is able to specifically design their individual molecules («stereopure») to contain the desired properties, thus potentially enhancing potency and minimizing toxicity. The company's lead product is in Phase I/II development for Huntington's disease and targets very specific point mutations in order to knock down the mutant protein. Proof of concept data support a clean safety profile and clear target engagement, but higher doses will be added to the Phase I/II study. Wave's second program in DMD was discontinued.

#### MARKET CAPITALIZATION

# 993 mn

(In USD as at 12/31/2019)



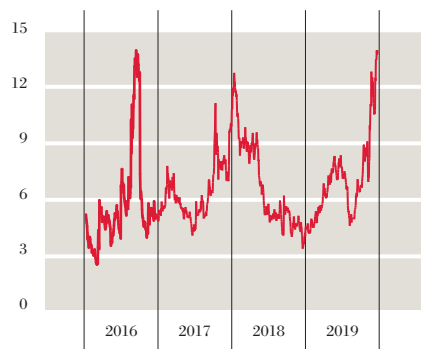
#### G1 Therapeutics

G1 Therapeutics is a clinical-stage small cap biotechnology company focused on the discovery and development of cancer treatment therapeutics. The company has two distinct clinical-stage selective inhibitors of cyclin-dependent kinases 4/6 (CDK4/6i) in its pipeline, trilaciclib and lerociclib as well as an oral selective estrogen receptor degrader (SERD). The lead candidate, trilaciclib, is an intravenous CDK4/6 inhibitor that has proven effective in myelopreserving the bone marrow across multiple cell lineages in three clinical trials in small-cell lung cancer. Based on these data, the company is currently submitting the NDA for trilaciclib to the FDA with a potential approval in mid-2021. The other wholly owned clinical assets, lerociclib and G1T48, are currently in proof-of-concept studies in metastatic breast cancer with relevant newsflow expected over the coming months.

#### MARKET CAPITALIZATION

# 600 mn

(In USD as at 12/31/2019)



#### Molecular Templates

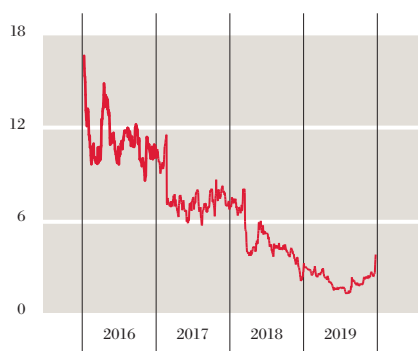
Molecular Templates is a development-stage oncology company based in Texas and is engaged in the discovery and development of targeted biologic therapeutics. The proprietary drug platform technology, known as Engineered Toxin Bodies (ETBs), represents a new class of targeted biologic therapy with unique biological properties. ETBs work through a novel, unique intracellular mechanism of action: enzymatic and permanent ribosome inactivation and subsequent destruction. In vitro and clinical data have demonstrated that ETB activity is neither inhibited by generalized mechanisms of chemoresistance nor by neutralizing anti-drug (against the toxin) antibodies. ETBs can induce internalization into cells even against non- or poorly internalizing targets. Forced internalization expands the universe of extracellular receptors that can be targeted for direct cell kill. MT-3724, the company's lead ETB candidate, is immunotoxin that targets the CD20 cell surface antigen present in a variety of lymphomas and leukemia types. Other assets in the clinic include targets CD38 (partnered with Takeda), HER2 and PDL-1 (by the end of 2020).

Source: Bloomberg

MARKET CAPITALIZATION

126 mn

(In USD as at 12/31/2019)



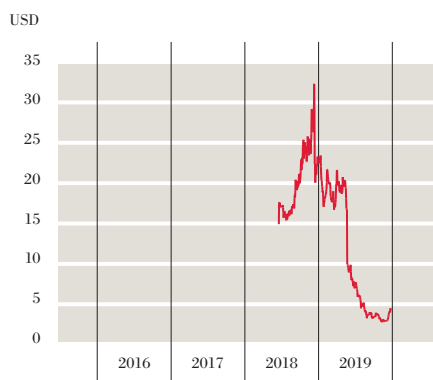
Cidara Therapeutics

Cidara is a biotechnology company focused on treating severe and resistant microbial infections. Its lead product, Rezafungin (in a Phase III study for candidemia and invasive candidiasis), is from the echinocandin class of antifungals but is dosed as a once-weekly infusion, versus daily for the current echinocandins. This would provide the option of treating patients with the best antifungal on an outpatient basis, thus offering significant advantages to both patients and the healthcare system. Initial Phase II data have demonstrated a strong safety profile and confirmed the once-weekly dosing potential along with a favorable efficacy profile. Following a constructive meeting with the FDA, a smaller than expected Phase III study was possible allowing Cidara to also conduct a prophylaxis study in bone marrow transplant patients. The Phase III IC and candidemia study started in September 2018 with data expected in 2020. The company partnered with Mundipharma for all markets outside the US and Japan, which resulted in near-term funding for the Phase III program. Finally, Cidara is the only company developing an immunotherapy platform for serious infections with influenza as the first target.

MARKET CAPITALIZATION

76 mn

(In USD as at 12/31/2019)



Kezar Life Sciences

Kezar Life Sciences is a development-stage biotechnology company focused on developing novel small molecule therapeutics targeting immunoproteasome inhibition for the treatment of autoimmune disorders. KZR-616, Kezar's lead product candidate, is currently in Phase II proof-of-concept trial in lupus nephritis (LN) on top of current standard of care with a readout expected in 2021. Moreover, further clinical trials have been initiated to evaluate KZR-616 in further autoimmune disorders with high unmet medical need such as warm hemolytic anemia and immune-mediated and inflammatory myopathies where proteasome inhibitors like Velcade have proven efficacious but too toxic for chronic treatment.

Source: Bloomberg







# Consolidated financial statements

## Consolidated balance sheet as at December 31

(in CHF 1 000)

	Notes	2019	2018
<b>Current assets</b>			
Cash and cash equivalents		30 707	22 072
Receivables from brokers		–	334
Securities at fair value through profit or loss	4	3 523 670	3 064 175
Other assets		190	263
		<b>3 554 567</b>	<b>3 086 844</b>
<b>Total assets</b>		<b>3 554 567</b>	<b>3 086 844</b>
<b>Current liabilities</b>			
Short-term borrowings from banks	5	150 000	185 000
Payables to brokers		6 359	13 139
Other short-term liabilities	6	4 992	4 056
Tax liabilities		243	137
		<b>161 594</b>	<b>202 332</b>
<b>Total liabilities</b>		<b>161 594</b>	<b>202 332</b>
<b>Shareholders' equity</b>			
Share capital	7	11 080	11 080
Retained earnings	7	3 381 893	2 873 432
		<b>3 392 973</b>	<b>2 884 512</b>
<b>Total liabilities and shareholders' equity</b>		<b>3 554 567</b>	<b>3 086 844</b>
Net asset value per share in CHF		61.25	52.05

The notes on pages 40 to 52 are an integral part of these consolidated financial statements.

The consolidated financial statements were approved by the Board of Directors of BB Biotech AG on February 18, 2020.

## Consolidated statement of comprehensive income for the year ended December 31

(in CHF 1 000)

	Notes	2019	2018
<b>Operating income</b>			
Net gains from securities	4	726 591	-
Interest income		41	29
Dividend income		1 156	5 458
Other income		378	290
		<b>728 166</b>	<b>5 777</b>
<b>Operating expenses</b>			
Net losses from securities	4	-	(427 090)
Finance expenses		(1 243)	(1 086)
Foreign exchange losses net		(1 173)	(2 544)
Administrative expenses	8	(42 375)	(41 849)
Other expenses	9	(5 876)	(4 480)
		<b>(50 667)</b>	<b>(477 049)</b>
<b>Operating income before tax</b>	<b>12</b>	<b>677 499</b>	<b>(471 272)</b>
Income taxes	10	(68)	(71)
<b>Net income for the period</b>		<b>677 431</b>	<b>(471 343)</b>
<b>Total comprehensive income for the period</b>		<b>677 431</b>	<b>(471 343)</b>
Income per share in CHF	11	12.23	(8.51)
Diluted income per share in CHF	11	12.23	(8.51)

The notes on pages 40 to 52 are an integral part of these consolidated financial statements.

**Consolidated statement of changes in equity for the year ended December 31**

(in CHF 1 000)

	Share capital	Treasury shares	Retained earnings	Total
<b>Balances at January 1, 2018</b>	<b>11 080</b>	–	<b>3 527 595</b>	<b>3 538 675</b>
Dividend	–	–	(182 820)	(182 820)
Total comprehensive income for the year	–	–	(471 343)	(471 343)
<b>Balances at December 31, 2018</b>	<b>11 080</b>	–	<b>2 873 432</b>	<b>2 884 512</b>
<b>Balances at January 1, 2019</b>	<b>11 080</b>	–	<b>2 873 432</b>	<b>2 884 512</b>
Dividend	–	–	(168 970)	(168 970)
Total comprehensive income for the year	–	–	677 431	677 431
<b>Balances at December 31, 2019</b>	<b>11 080</b>	–	<b>3 381 893</b>	<b>3 392 973</b>

The notes on pages 40 to 52 are an integral part of these consolidated financial statements.

## Consolidated statement of cash flow for the year ended December 31

(in CHF 1 000)

	Notes	2019	2018
<b>Cash flows from operating activities</b>			
Proceeds from sales of securities	4	754 160	1 078 776
Purchase of securities	4	(493 508)	(930 168)
Dividend receipts		1 156	5 458
Interest receipts		41	29
Payments for services		(46 789)	(46 299)
Income taxes paid		(39)	(4)
<b>Total cash flows from operating activities</b>		<b>215 021</b>	<b>107 792</b>
<b>Cash flows from financing activities</b>			
Dividend		(168 970)	(182 820)
(Repayment)/borrowing of bank loans	5	(35 000)	90 000
Interest payments		(1 243)	(1 086)
<b>Total cash flows from financing activities</b>		<b>(205 213)</b>	<b>(93 906)</b>
Foreign exchange difference		(1 173)	(2 544)
<b>Change in cash and cash equivalents</b>		<b>8 635</b>	<b>11 342</b>
<b>Cash and cash equivalents at the beginning of the year</b>		<b>22 072</b>	<b>10 730</b>
<b>Cash and cash equivalents at the end of the year</b>		<b>30 707</b>	<b>22 072</b>

The notes on pages 40 to 52 are an integral part of these consolidated financial statements.



## 1. The Company and its principal activity

BB Biotech AG (the Company) is listed on the SIX Swiss Exchange, in the «Prime Standard Segment» of the German Exchange as well as in the «Star Segment» of the Italian Exchange and has its registered office in Schaffhausen, Schwertstrasse 6. Its principal activity is to invest in companies active in the biotechnology industry for the purpose of capital appreciation. The investments are held through its wholly owned subsidiaries.

Company	Capital in CHF 1 000	Capital and voting interest in %
Biotech Focus N.V., Curaçao	11	100
Biotech Growth N.V., Curaçao	11	100
Biotech Invest N.V., Curaçao	11	100
Biotech Target N.V., Curaçao	11	100

## 2. Accounting policies

### General

The consolidated financial statements of the Company and its subsidiary companies (the Group) have been prepared in accordance with International Financial Reporting Standards (IFRS), as well as the provisions of the rules of the SIX Swiss Exchange for Investment Companies. The consolidation is prepared from the financial statements of the Group companies using uniform accounting principles. With the exception of financial assets and liabilities (incl. derivative instruments), which are held at fair value through profit or loss, the financial statements are prepared under the historical cost convention. This requires management to make assumptions and estimates that have an impact on the balance sheet values and items of the income statement in the current financial year. In certain circumstances, the actual values may differ from these estimates.

The following new standards and interpretations, valid since January 1, 2019, have been applied in these annual consolidated financial statements:

- IFRS 9 (amended, effective January 1, 2019) – Financial instruments
- IFRS 16 (effective January 1, 2019) – Leases
- IAS 19 (amended, effective January 1, 2019) – Employee benefits
- IAS 28 (amended, effective January 1, 2019) – Investments in associates and joint ventures
- IFRIC 23 (effective January 1, 2019) – Uncertainty over Income Tax Treatments

The Group assessed the impact of the above-mentioned new standards and interpretations. Based on the analysis, the Group concludes that these new standards have no material impact on the Group's accounting policies and overall results and financial position.

The following new amended standards were approved, but will only be applicable for the Group prospectively and were not early adopted in these annual consolidated financial statements:

- IFRS 3 (amended, effective January 1, 2020) – Business Combinations
- IAS 39, IFRS 7, IFRS 9 (amended, effective January 1, 2020) – IBOR reform

The Group assessed the potential impact of the above-mentioned amended standards. Based on the analysis, the Group concludes that these amended standards have no material impact on the Group's accounting policies and overall results and financial position.

### Basis of consolidation

The consolidated financial statements include the Company and the subsidiary companies which are controlled by it. An investor controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Subsidiaries are fully consolidated from the date on which control is transferred to the Company and are deconsolidated from the date that control ceases. The consolidation is performed using the acquisition method. All inter-company transactions and balances with companies included in the consolidation are eliminated. All Group companies have a December 31 year-end.

### Foreign currency translation

Based on the economic environment (primary listing, investors, costs and performance measurement) in which the Company and its subsidiaries operate, the consolidated financial statements of the Group are presented in Swiss francs, which is the Company's and its subsidiaries functional currency. Transactions in foreign currencies are converted at exchange rates as at transaction dates. Assets and liabilities in foreign currencies at year-end are translated at rates of exchange prevailing as at the balance sheet date. Exchange differences are reflected in the statement of income. Translation differences on marketable securities held at fair value through profit or loss are reported as part of the net gains/(losses) from securities.

The following exchange rates have been used for the preparation of these consolidated financial statements:

Currency	12/31/2019	12/31/2018
USD	0.96760	0.98160
ANG	0.54360	0.55146
EUR	1.08550	1.12751
GBP	1.27970	1.25330

### Financial assets

The Group classifies its financial assets in the following categories:

- Financial assets at amortized cost
- Financial assets at fair value through profit or loss

#### *Financial assets at amortized cost*

Financial assets at amortized cost are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except when they have maturities of greater than twelve months after the balance sheet date. Otherwise they are classified as non-current assets.

#### Cash and cash equivalents

Cash and cash equivalents comprise current accounts and call money at banks which have a maturity of three months or less.

#### Receivables from brokers

Receivables from brokers result from security transactions and do not bear any interest.

These amounts are recognized initially at fair value and subsequently measured at amortized cost. At each reporting date, the Group shall measure the loss allowance on amounts due from broker at an amount equal to the Lifetime Expected Credit Loss ("ECL") if the credit risk has increased significantly since initial recognition. If, at the reporting date, the credit risk has not increased significantly since initial recognition, the Group shall measure the loss allowance at an amount equal to 12-month ECLs. A significant increase in credit risk is defined as any contractual payment which is more than 30 days past due. Any contractual payment which is more than 90 days past due is considered credit impaired. For receivables from brokers which settle within 10 business days the ECL estimate is nil.

#### *Financial assets at fair value through profit or loss*

Financial assets at fair value through profit or loss comprise marketable and non-marketable securities which are classified as current assets.

Initially, securities and derivatives are measured at fair value and are subsequently remeasured at market values based on stock exchange prices or generally accepted valuation models that are based on market conditions existing at each balance sheet date, such as Black-Scholes, earnings multiple and discounted cash flow model. Purchases and sales of securities are accounted for at trade date. Realized gains and losses on security trading are recognized in the statement of comprehensive income as net gains/losses from securities at the day of the transaction. Changes in fair value of securities are also recognized as net gains/losses from securities in the statement of comprehensive income in the same period in which they arise. Securities are derecognized when the rights to receive cash flows from securities have expired or where the Group has transferred substantially all risks and rewards of ownership.

Transaction costs are costs to acquire financial assets at fair value through profit or loss. They include transfer taxes and duties as well as fees and commissions paid to agents, advisers, brokers and dealers. Transaction costs, when incurred, are immediately recognized as an expense.

### Financial liabilities

Financial liabilities are generally classified and subsequently measured at amortized cost using the effective interest method, except for financial liabilities held for trading and derivatives.

### **Payables to brokers**

Payables to brokers result from security transactions and do not bear any interest.

### **Short-term borrowings from banks**

Short-term borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the income statement over the period of the borrowings using the effective interest method. Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least twelve months after the balance sheet date.

### **Income taxes**

Current income taxes are calculated on the basis of the applicable tax laws in individual countries and recognized as an expense in the period in which the related profits are made.

Assets or liabilities related to current income taxes are reported in the balance sheet in the items «Current tax assets» or «Current tax liabilities». Tax effects arising from temporary differences between the carrying amounts of assets and liabilities in the Group's balance sheet and their corresponding tax values are recognized, respectively, as «Deferred tax assets» and «Deferred tax liabilities». Deferred tax assets arising from temporary differences and from loss carry-forwards eligible for offset are capitalized if it is likely that sufficient taxable profits will be available against which those temporary differences or loss carry-forwards can be offset. Deferred tax assets and deferred tax liabilities are calculated at the tax rates expected to apply in the period in which the tax assets will be realized, or the tax liabilities settled.

### **Earnings per share**

Basic earnings per share are calculated by dividing the net profit/loss attributable to shareholders by the weighted average number of registered shares in issue during the year, less treasury shares. For the diluted earnings per share, the weighted average number of registered shares in issue and the net profit is adjusted to assume conversion of all dilution potential registered shares.

### **Treasury shares**

Treasury shares are deducted from shareholders' equity. All profits and losses arising from trading in treasury shares are directly credited/debited to retained earnings. Treasury shares may be acquired and held by the Company or by other members of the consolidated Group.

### **Net asset value per share**

The net asset value per share is calculated by dividing the shareholders' equity by the number of shares outstanding less treasury shares held.

### **Dividend income**

Dividends on securities are recognized in the income statement when the Group's right to receive payment is established.

### **Leasing contracts**

The Group has two rental contracts for office space in Schaffhausen and Curacao. Due to the immateriality of a right-of-use-asset and a lease liability, no disclosure according to IFRS 16 are made within these consolidated financial statements.

### **Pension liability**

BB Biotech AG maintains for its employee a defined benefit plan. There is no pension plan for employees of Group companies. Due to the immateriality of any potential pension liability or potential pension asset, no disclosures according to IAS 19 are made within these consolidated financial statements.

### **Commitments, contingencies and other off-balance sheet transactions**

The operations of the Group are affected by legislative, fiscal and regulatory developments for which provisions are made where a legal or constructive obligation has been incurred which will probably lead to an outflow of resources that can be reasonably estimated.

### **Critical accounting estimates and judgments**

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group makes estimates and assumptions that are mainly based on market conditions to value these financial instruments. Since these financial instruments are not traded in an active market, inherent difficulties exist to value these financial instruments. These difficulties cannot be eliminated. The difference between the proceeds from sale of these financial instruments and the carrying amount may be material.

IFRS 10 «Consolidated Financial Statements» requires, that investment companies do not consolidate their subsidiaries, which themselves are investment companies. Instead they should be accounted for using the fair value. In the analysis of the first-time adoption of IFRS 10, the Company came to the conclusion that the subsidiaries do not meet the criteria for investment companies under IFRS 10 and acts as an extension of the parent (providing of investment-related services). Thus, the Group continues to consolidate its subsidiaries. The fair value accounting would not have a material impact on the net income and equity of the Group.

### **3. Financial risk management**

Within the framework of the law, articles of incorporation and regulations, the investment manager carries out currency and security forward transactions, buys, sells and makes use of options as well as fulfills all necessary obligations that result from these businesses.

#### **Credit risk**

The Group is exposed to credit risk, which is the risk that a counterparty will be unable to pay amount in full when due. The Group measures credit risk and expected credit losses using probability of default, exposure at default and loss given default. The Group considers both historical analysis and forward looking information in determining any expected credit loss.

The Group manages and controls its credit risk by maintaining business relations only with counterparties with an acceptable credit rating. All transactions in securities are settled/paid for upon delivery using approved brokers. The risk of default is considered minimal, as delivery of securities sold is only made once the broker has received payment. Payment is made on a purchase once the securities have been received by the broker. The trade will fail if either party fails to meet its obligation. The Group's credit positions, if any, are monitored on a daily basis by the investment manager and are reviewed on a regular basis by the Board of Directors.

As at December 31, 2019 and 2018, the ECL-impairment model did not have a material impact as (i) the majority of the financial assets are measured at fair value through profit or loss and the impairment requirements do not apply to such instruments; and (ii) the financial assets at amortized cost are short-term (no longer than 10 days). As a result, no loss allowance has been recognized.

#### **Market risks**

##### *Risk associated with changing market prices*

Due to its business activity and the resulting high portion of securities in relation to total assets, the Group is exposed to market price risk arising from uncertainties and fluctuations on the financial and foreign exchange markets.

The Group participates occasionally, but to a substantial extent, in the capital of its investments. In the case of sales of large parts of these investments, it may be able to influence the market price. The Group's securities positions are monitored on a daily basis by the investment manager and are reviewed on a regular basis by the Board of Directors.

The annual volatility of registered shares BB Biotech AG (reference volatility for the marketable securities) for 2019 is 21.37% (2018: 25.32%). At December 31, 2019, had the value of listed securities increased or decreased by 21.37% (2018: 25.32%) with all other variables held constant, the increase or decrease respectively in net income/loss as well as shareholders' equity would amount to CHF 752.5 mn (2018: CHF 775.8 mn).

At December 31, 2019 and 2018 the Company holds no unlisted shares.

##### *Interest risk*

Interest rates on liquid funds are based on market rates. The funds are due on demand.

Short-term borrowings from banks are on current and short-term loan accounts with interest, based at market rates. Due to the high level of own funds, the effect of interest payable on the statement of income is insignificant. The majority of the Group's securities are non-interest bearing; as a result, the Group is not subject to significant amounts of risk due to fluctuations in the prevailing levels of market interest rates.

The Group's interest sensitivity is monitored on a daily basis by the investment manager and reviewed on a regular basis by the Board of Directors.

### Currency risk

The Group hold assets denominated in currencies other than the Swiss franc, the functional currency. They are therefore exposed to currency risk, as the value of the securities denominated in other currencies will fluctuate due to changes in exchange rates. Depending on the market situation the Group could use foreign currency options and/or forward contracts to reduce the currency risk.

The following table summarizes the Group's exposure to currency risks:

2019	Net exposure 12/31/ (in CHF 1 000)	Annual volatility (in %)	Potential impact (in CHF 1 000) <sup>1)</sup>
USD	3 500 013	5.50	192 571
ANG	128	5.50	7
<b>2018</b>			
USD	3 064 292	6.47	198 168

<sup>1)</sup> Potential impact on total comprehensive income as well as shareholders' equity with all other variables held constant

The Group's currency position is monitored on a daily basis by the investment manager and is reviewed on a regular basis by the Board of Directors.

### Liquidity risk

The Group invests the majority of its assets in investments that are traded in an active market and can be readily disposed of. The Group's treasury shares, with the exception of shares purchased under a share buy-back program, are considered readily realizable as they are listed on three stock exchanges. The Group can invest a minor part of its portfolio in securities, which are not traded on a stock exchange and may be illiquid. As a result, the Group may not be able to liquidate its investments in these instruments on short notice. In addition, the Group has access to a credit line (notes 5 and 13).

The tables below analyze the Group's financial liabilities into relevant maturity groupings based on the period between the balance sheet date and the contractual maturity date (in CHF 1 000):

	Less than 1 month	1-3 months	More than 3 months / no stated maturity
<b>At December 31, 2019</b>			
Short-term borrowings from banks	150 000	–	–
Payables to brokers	6 359	–	–
Other short-term liabilities	4 657	335	–
<b>Total liabilities</b>	<b>161 016</b>	<b>335</b>	<b>–</b>
<b>At December 31, 2018</b>			
Short-term borrowings from banks	185 000	–	–
Payables to brokers	13 139	–	–
Other short-term liabilities	3 563	493	–
<b>Total liabilities</b>	<b>201 702</b>	<b>493</b>	<b>–</b>

The Group's liquidity position is monitored on a daily basis by the investment manager and is reviewed on a regular basis by the Board of Directors.

### Diversification

The investment portfolio usually consists of 20 to 35 investments. This includes five to eight large core investments, defined as positions > 5%. These investments together will account for up to two-thirds of the portfolio. Companies without a stock market listing shall not exceed 10% of the portfolio.

As per December 31, 2019, the Group held seven core investments, representing 55% (2018: five core investments, 43%) of the portfolio. The portfolio is – in line with the strategy – concentrated on a limited number of investments. Risk diversification is therefore limited.

## Fair values

The following table presents the Group's assets that are measured at fair value at December 31 (in CHF 1 000):

2019	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Securities at fair value through profit or loss				
– Shares	3 518 985	–	–	3 518 985
– Derivative instruments	2 330	–	2 355	4 685
<b>Total assets</b>	<b>3 521 315</b>	<b>–</b>	<b>2 355</b>	<b>3 523 670</b>
<b>2018</b>				
<b>Assets</b>				
Securities at fair value through profit or loss				
– Shares	3 063 972	–	–	3 063 972
– Derivative instruments	–	203	–	203
<b>Total assets</b>	<b>3 063 972</b>	<b>203</b>	<b>–</b>	<b>3 064 175</b>

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. A market is regarded as active if quoted prices are readily and regularly available and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the closing price. These instruments are included in level 1.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available. The options are valued on the basis of the Black-Scholes model which is based on market conditions existing at each balance sheet date. These instruments are included in level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. The valuation of level 3 instruments is quarterly reviewed. As soon as new or adjusted parameters are available the valuation model (e.g. earnings multiple model) of unlisted shares is adjusted accordingly. As of December 31, 2019, the Company holds one level 3 instrument, allocated as part of a corporate action on October 24, 2019 (December 31, 2018: none).

The table below summarizes the transactions in level 3 instruments (in CHF 1 000):

	2019	2018
Opening balance	–	–
Purchases	–	65 408
Sales	–	–
Reclassification	–	(69 356)
Income included in net gains from securities	2 355	3 948
<b>Closing balance</b>	<b>2 355</b>	<b>–</b>
<b>Total income on level 3 instruments included in net gains from securities</b>	<b>2 355</b>	<b>3 948</b>

There have been no transfers between level 1, 2 and 3 during the reporting period. No sensitivity analysis has been disclosed due to the immaterial amount of level 3 instruments.

The fair value at initial recognition of the level 3 instrument in 2018 represents the transaction price, which was paid in a financing round together with other investors. Due to the IPO of Moderna Inc. as of December 6, 2018, a reclassification of the Moderna shares from level 3 to level 1 (CHF 69 356) took place.

For assets and liabilities carried at amortized cost, their carrying values are a reasonable approximation of fair value.



#### 4. Financial assets

##### Securities

The changes in value of securities at fair value through profit or loss by investment category are as follows (in CHF 1 000):

	Listed shares	Unlisted shares	Derivative instruments	Total
<b>Opening balance as at 01/01/2018 at fair values</b>	<b>3 623 929</b>	<b>–</b>	<b>3 140</b>	<b>3 627 069</b>
Purchases	877 899	65 408	–	943 307
Sales	(1 076 876)	–	(2 235)	(1 079 111)
Reclassification <sup>1)</sup>	69 356	(69 356)	–	–
Net gains/(losses) from securities	(430 336)	3 948	(702)	(427 090)
<i>Realized gains</i>	209 613	–	371	209 984
<i>Realized losses</i>	(64 769)	–	–	(64 769)
<i>Unrealized gains</i>	154 039	3 948	–	157 987
<i>Unrealized losses</i>	(729 219)	–	(1 073)	(730 292)
<b>Closing balance as at 12/31/2018 at fair values</b>	<b>3 063 972</b>	<b>–</b>	<b>203</b>	<b>3 064 175</b>
<b>Opening balance as at 01/01/2019 at fair values</b>	<b>3 063 972</b>	<b>–</b>	<b>203</b>	<b>3 064 175</b>
Purchases	485 239	–	1 490	486 729
Sales	(753 455)	–	(370)	(753 825)
Net gains/(losses) from securities	723 228	–	3 363	726 591
<i>Realized gains</i>	251 993	–	167	252 160
<i>Realized losses</i>	(12 865)	–	–	(12 865)
<i>Unrealized gains</i>	693 965	–	3 196	697 161
<i>Unrealized losses</i>	(209 865)	–	–	(209 865)
<b>Closing balance as at 12/31/2019 at fair values</b>	<b>3 518 985</b>	<b>–</b>	<b>4 685</b>	<b>3 523 670</b>

<sup>1)</sup> IPO of Moderna Inc. as at December 6, 2018

Securities comprise the following:

Company	Number 12/31/2018	Change	Number 12/31/2019	Market price in original currency 12/31/2019	Valuation CHF mn 12/31/2019	Valuation CHF mn 12/31/2018	
Ionis Pharmaceuticals	8 741 334	(746 379)	7 994 955	USD	60.41	467.3	463.9
Neurocrine Biosciences	3 343 090	(115 016)	3 228 074	USD	107.49	335.7	234.3
Incyte	3 808 322	(408 322)	3 400 000	USD	87.32	287.3	237.7
Vertex Pharmaceuticals	1 370 445	(130 445)	1 240 000	USD	218.95	262.7	222.9
Esperion Therapeutics	3 392 964	335 000	3 727 964	USD	59.63	215.1	153.2
Agios Pharmaceuticals	2 878 134	1 018 820	3 896 954	USD	47.75	180.1	130.3
Alnylam Pharmaceuticals	1 571 389	28 611	1 600 000	USD	115.17	178.3	112.5
Argenx SE	884 739	60 000	944 739	USD	160.52	146.7	83.4
Alexion Pharmaceuticals	1 314 428	–	1 314 428	USD	108.15	137.5	125.6
Halozyme Therapeutics	8 322 860	(359 804)	7 963 056	USD	17.73	136.6	119.5
Radius Health	6 710 276	171 409	6 881 685	USD	20.16	134.2	108.6
Moderna	4 785 681	32 100	4 817 781	USD	19.56	91.2	71.7
Sage Therapeutics	1 375 229	(95 125)	1 280 104	USD	72.19	89.4	129.3
Myokardia	877 266	387 647	1 264 913	USD	72.89	89.2	42.1
Intercept Pharmaceuticals	575 719	121 257	696 976	USD	123.92	83.6	57.0
Intra-Cellular Therapies	2 200 000	100 000	2 300 000	USD	34.31	76.4	24.6
Myovant Sciences	3 597 882	1 217 227	4 815 109	USD	15.52	72.3	58.0
Nektar Therapeutics	1 380 975	1 239 701	2 620 676	USD	21.59	54.7	44.6
Bristol-Myers Squibb Co.	–	800 000	800 000	USD	64.19	49.7	–
Arvinas	–	1 241 903	1 241 903	USD	41.09	49.4	–
Exelixis	2 835 000	–	2 835 000	USD	17.62	48.3	54.7
Macrogenics	3 283 272	1 235 887	4 519 159	USD	10.88	47.6	40.9
Crispr Therapeutics	–	730 462	730 462	USD	60.91	43.0	–
Akcea Therapeutics	2 386 471	62 477	2 448 948	USD	16.94	40.1	70.6
Voyager Therapeutics	2 865 841	(185 558)	2 680 283	USD	13.95	36.2	26.4
Scholar Rock Holding	1 279 978	1 354 488	2 634 466	USD	13.18	33.6	28.9
Homology Medicines	–	1 612 122	1 612 122	USD	20.70	32.3	–
Sangamo Therapeutics	1 350 000	2 500 000	3 850 000	USD	8.37	31.2	15.2
Wave Life Sciences	1 465 002	937 856	2 402 858	USD	8.02	18.6	60.5
G1 Therapeutics	671 925	50 000	721 925	USD	26.43	18.5	12.6
Molecular Templates	–	1 295 687	1 295 687	USD	13.99	17.5	–
Cidara Therapeutics	2 295 272	–	2 295 272	USD	3.84	8.5	5.3
Kezar Life Sciences	818 432	732 237	1 550 669	USD	4.01	6.0	19.0
Celgene	2 303 875	(2 303 875)	–	USD	n.a.	–	144.9
Gilead	1 332 204	(1 332 204)	–	USD	n.a.	–	81.8
Alder Biopharmaceuticals	2 766 008	(2 766 008)	–	USD	n.a.	–	27.8
Regeneron Pharmaceuticals	68 156	(68 156)	–	USD	n.a.	–	25.0
Audentes Therapeutics	769 404	(769 404)	–	USD	n.a.	–	16.1
Novavax <sup>1)</sup>	8 330 000	(416 500)	–	USD	n.a.	–	15.0
<b>Total shares</b>						<b>3 519.0</b>	<b>3 063.9</b>
Alder Biopharmaceuticals – Contingent Value Right	–	2 766 008	2 766 008	USD	0.88	2.4	–
Bristol-Myers Squibb – Contingent Value Right	–	800 000	800 000	USD	3.01	2.3	–
Radius Health, warrants, USD 14, 02/19/2019	71 409	(71 409)	–	USD	n.a.	–	0.2
<b>Total derivative instruments</b>						<b>4.7</b>	<b>0.2</b>
<b>Total securities at fair value through profit or loss</b>						<b>3 523.7</b>	<b>3 064.2</b>

<sup>1)</sup> Share split 1:20 as at May 10, 2019

Securities are deposited with Bank Julius Baer & Co. Ltd., Zurich.

## 5. Short-term borrowings from banks

At December 31, 2019, a CHF 150 mn short-term loan is outstanding, with interest payable at 0.40% p.a. (2018: CHF 185 mn at 0.40% p.a.).

## 6. Other short-term liabilities

(in CHF 1 000)

Other short-term liabilities comprise the following:

	12/31/2019	12/31/2018
Payables to investment manager	3 513	3 196
Payables to market maker	32	28
<b>Total liabilities to related parties</b>	<b>3 545</b>	<b>3 224</b>
Other liabilities	1 447	832
<b>Total liabilities to third parties</b>	<b>1 447</b>	<b>832</b>
	<b>4 992</b>	<b>4 056</b>

Liabilities to related parties represent unpaid fees, commissions as well as administration costs. Further information on transactions with related parties are disclosed in note 16, «Related party transactions».

## 7. Shareholders' equity

The share capital of the Company consists of 55.4 mn fully paid registered shares (2018: 55.4 mn registered shares) with a par value of CHF 0.20 each (2018: CHF 0.20). CHF 2.2 mn of the retained earnings (2018: CHF 2.2 mn) are undistributable.

	Par value per share in CHF	Nominal value of the share capital in CHF 1 000	Number of shares	Treasury shares number	Outstanding shares number
January 1, 2018	0.20	11 080	55 400 000	–	55 400 000
December 31, 2018	0.20	11 080	55 400 000	–	55 400 000
January 1, 2019	0.20	11 080	55 400 000	–	55 400 000
December 31, 2019	0.20	11 080	55 400 000	–	55 400 000

At December 31, 2019 and 2018, the Company has neither authorized nor conditional capital.

The General Shareholders' Meeting held on March 17, 2016, has approved a share buy-back program, whereby up to 5 540 000 shares may be repurchased by the Company. Until the end of the program, at April 11, 2019, no shares had been repurchased under this share buy-back program.

The Board of Directors has approved the repurchase of a maximum of 5 540 000 own registered shares with a nominal value of CHF 0.20 each. The share buy-back program will run from April 12, 2019, until April 11, 2022, at the latest. Until December 31, 2019, no shares had been repurchased under this share buy-back program. A repurchase would take place via second trading line for the purpose of a subsequent capital reduction.

## 8. Administrative expenses

(in CHF 1 000)

Administrative expenses comprise the following:

	2019	2018
<b>Investment manager</b>		
– Management fees (incl. VAT)	40 512	40 810
<b>Personnel</b>		
– Board of Directors remuneration	1 098	910
– Wages and salaries	634	73
– Social insurance contributions and duties	131	56
	<b>42 375</b>	<b>41 849</b>

The remuneration model of BB Biotech AG is determined by the Board of Directors.

Since 2014, the remuneration paid to the investment manager is based upon a 1.1% p.a. all-in fee on the average market capitalization without any additional fixed or performance-based elements of compensation, which is paid on a monthly basis. The compensation of the Board of Directors consists since 2014 of a fixed compensation.

## 9. Other expenses

(in CHF 1 000)

Other expenses comprise the following:

	2019	2018
Bank charges	577	596
Marketing and financial reporting	1 872	2 122
Legal and consulting expenses	385	409
Stamp duty	1 724	–
Other expenses	1 318	1 353
	<b>5 876</b>	<b>4 480</b>

## 10. Taxes

(in CHF 1 000)

	2019	2018
Operating income before tax	677 499	(471 272)
Expected tax rate (Federal tax Switzerland)	7.8%	7.8%
Expected income tax	52 845	–
Difference between effective local tax rates and the expected Swiss tax rate	52 777	(71)
<b>Total income tax</b>	<b>68</b>	<b>71</b>

In the current year, the average effective income tax rate on a consolidated basis was less than 1% (2018: <1%). This low rate is mainly attributable to the fact that a large proportion of operating income was generated by companies located in Curaçao. As at December 31, 2019, there is no nettable loss carry forward (2018: none).

## 11. Earnings per share

	2019	2018
Total comprehensive income for the period (in CHF 1 000)	677 431	(471 343)
Weighted average number of shares in issue	55 400 000	55 400 000
<b>Income per share in CHF</b>	<b>12.23</b>	<b>(8.51)</b>
Income used to determine diluted income per share (in CHF 1 000)	677 431	(471 343)
Weighted average number of shares in issue following the dilution	55 400 000	55 400 000
<b>Diluted income per share in CHF</b>	<b>12.23</b>	<b>(8.51)</b>

## 12. Segment information

(in CHF 1 000)

The Group has only one business segment, namely the holding of investments in companies active in the biotechnology industry.

The geographical analysis of the operating income before tax is as follows – all income from financial assets are attributed to a country based on the domiciliation of the issuer of the instrument:

Operating income before tax	2019	2018
USA	700 242	(423 967)
Netherlands	56 334	14 887
Switzerland	14 221	(8 053)
Great Britain	4 631	12 870
Curaçao	(43 977)	(41 752)
Singapore	(53 952)	6 847
Germany	–	(7 305)
Ireland	–	(9 736)
Denmark	–	(15 063)
	<b>677 499</b>	<b>(471 272)</b>

## 13. Assets pledged

At December 31, 2019, the securities in the amount of CHF 3 523.7 mn (2018: CHF 2 782.9 mn) are a collateral for a credit line of CHF 700 mn (2018: CHF 700 mn). At December 31, 2019, a CHF 150 mn short-term loan is outstanding (2018: CHF 185 mn).

## 14. Commitments, contingencies and other off-balance sheet transactions

The Group had no commitments or other off-balance sheet transactions open at December 31, 2019 (2018: none).

The operations of the Group are affected by legislative, fiscal and regulatory developments for which provisions are made where deemed necessary. The Board of Directors concludes that as at December 31, 2019, no proceedings existed which could have any material effect on the financial position of the Group (2018: none).

## 15. Financial instruments by category

Financial assets and liabilities are allocated to categories as follows (in CHF 1 000):

At December 31, 2019	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Total
<b>Assets as per balance sheet</b>			
Cash and cash equivalents	30 707	–	30 707
Securities	–	3 523 670	3 523 670
	<b>30 707</b>	<b>3 523 670</b>	<b>3 554 377</b>
	Financial liabilities at fair value through profit or loss	Financial liabilities at amortized cost	Total
<b>Liabilities as per balance sheet</b>			
Short-term borrowings from banks	–	150 000	150 000
Payables to brokers	–	6 359	6 359
Other short-term liabilities	–	4 992	4 992
	–	<b>161 351</b>	<b>161 351</b>
At December 31, 2018	Financial assets at amortized cost	Financial assets at fair value through profit or loss	Total
<b>Assets as per balance sheet</b>			
Cash and cash equivalents	22 072	–	22 072
Receivables from brokers	334	–	334
Securities	–	3 064 175	3 064 175
	<b>22 406</b>	<b>3 064 175</b>	<b>3 086 581</b>
	Financial liabilities at fair value through profit or loss	Financial liabilities at amortized cost	Total
<b>Liabilities as per balance sheet</b>			
Short-term borrowings from banks	–	185 000	185 000
Payables to brokers	–	13 139	13 139
Other short-term liabilities	–	4 056	4 056
	–	<b>202 195</b>	<b>202 195</b>

Profit and loss from financial assets and liabilities are allocated to categories as follows (in CHF 1 000):

2019	Financial assets at amortized cost	Financial instruments at fair value through profit or loss	Financial liabilities at amortized cost	Total
<b>Profit and loss from financial instruments</b>				
Net gains from securities	–	726 591	–	726 591
Interest income	41	–	–	41
Dividend income	–	1 156	–	1 156
Finance expenses	–	–	(1 243)	(1 243)
Foreign exchange losses net	(1 173)	–	–	(1 173)

## 2018

<b>Profit and loss from financial instruments</b>				
Interest income	29	–	–	29
Dividend income	–	5 458	–	5 458
Net losses from securities	–	(427 090)	–	(427 090)
Finance expenses	–	–	(1 086)	(1 086)
Foreign exchange losses net	(2 544)	–	–	(2 544)

### 16. Related party transactions

The asset management and administration of the Company has been delegated to Bellevue Asset Management AG. Based on the 1.1% p.a. all-in fee model, no additional costs incurred at Bellevue Asset Management AG were charged to the BB Biotech Group (2018: none). Bank am Bellevue AG was mandated with a market making mandate. The commission for these transactions amount to TCHF 126 (2018: TCHF 170). The amounts outstanding at the balance sheet date are disclosed in note 6, «Other short-term liabilities».

Detailed information regarding the remuneration model for the Board of Directors and the investment manager are mentioned under note 8, «Administrative expenses».

### 17. Significant shareholders

The Board of Directors is not aware of any major shareholder with a holding exceeding 3% of all votes as at December 31, 2019 and 2018.

### 18. Subsequent events

There have been no events subsequent to December 31, 2019, which would affect the 2019 consolidated financial statements.







Report of the statutory auditor  
to the General Meeting of  
BB Biotech AG  
Schaffhausen

### Report on the audit of the consolidated financial statements

#### Opinion

We have audited the consolidated financial statements of BB Biotech AG and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2019 and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flow for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

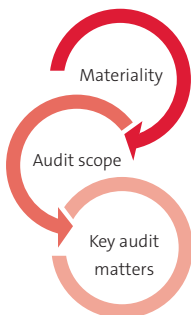
In our opinion, the consolidated financial statements (pages 36 to 52) give a true and fair view of the consolidated financial position of the Group as at 31 December 2019 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRS) and comply with the provisions of article 14 of the Directive on Financial Reporting (DFR) of SIX Swiss Exchange and with Swiss law.

#### Basis for opinion

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the “Auditor’s responsibilities for the audit of the consolidated financial statements” section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the IESBA Code of Ethics for Professional Accountants, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Our audit approach

<b>Overview</b>	Overall Group materiality: CHF 33 920 000
	We concluded full scope audit work at all of the reporting units, which are located in Switzerland and Curacao.
	Our audit scope therefore addressed 100% of the Group’s assets, liabilities, equity, income, expenses and cash flows.
	As key audit matters, the following areas of focus were identified: <ul style="list-style-type: none"><li>– Valuation of securities</li><li>– Ownership of securities</li><li>– Calculation of all-in fee</li></ul>

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### *Materiality*

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall Group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the consolidated financial statements as a whole.

<b>Overall Group materiality</b>	CHF 33 920 000
<b>How we determined it</b>	1% of total consolidated shareholders' equity
<b>Rationale for the materiality benchmark applied</b>	We chose shareholders' equity as the benchmark because, in our view, it is the most relevant benchmark for investors, and it is a generally accepted benchmark for investment companies.

### *Audit scope*

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The Group consists of a holding company located in Switzerland and four reporting entities located in Curacao, which hold investments in companies in the biotechnology industry. We performed full scope audit work on each reporting entity.

### *Key audit matters*

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

### **Valuation of securities**

#### **Key audit matter**

The investment portfolio as of 31 December 2019 comprises investments in marketable and non-marketable securities (derivatives).

We consider this area to be a key audit matter because of the significant value of the securities in the consolidated financial statements.

As set out in note 4 (Schedule of securities) securities amount to CHF 3 524 million or 99.1% of total assets.

The valuation of the securities is prepared by the Investment Manager using the valuation methods disclosed in note 2 (Accounting policies). The Board of Directors approves the valuation of the investment portfolio.

#### **How our audit addressed the key audit matter**

We verified the design and implementation of the controls relating to the valuation of securities in order to determine whether the Investment Manager has appropriate controls in place. Further, we verified the adequacy of the applied valuation methods as well as the appropriateness of the resulting valuation figures by performing the following procedures:

We compared the valuation methods applied by the Investment Manager with generally accepted valuation methods. Further, we verified the quoted prices of marketable securities by comparing them with those from an independent source different from that used by the Investment Manager. Additionally, we verified that the valuation of the non-marketable securities is in line with the valuation policies of the Group.

We obtained sufficient audit evidence to conclude that the valuation methods were both appropriate and consistently applied by the Investment Manager.

## **Ownership of securities**

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### **Key audit matter**

The securities are safeguarded by an independent custodian.

There is a risk that BB Biotech AG may not have sufficient legal entitlement to the securities.

We consider this area to be a key audit matter because of the significant value of the securities in the consolidated financial statements.

### **How our audit addressed the key audit matter**

We examined the ownership of the securities by requesting a confirmation of the securities portfolio directly from the custodian.

We obtained sufficient audit evidence to conclude that there is sufficient legal entitlement to the securities portfolio.

## **Calculation of all-in fee**

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### **Key audit matter**

The Board of Directors has entered into a management contract with the investment manager. In this contract, the investment manager commits to carry out management services relating to the investment activity and management of the Group. The remuneration is calculated on the basis of the average market capitalisation of the company, as disclosed in note 8 (Administrative expenses).

We consider this area to be a key audit matter because it represents a significant expense in the consolidated financial statements.

### **How our audit addressed the key audit matter**

We verified that the calculation method complies with the contractual agreements.

We verified the calculation of the average market capitalisation on a sample basis and performed a recalculation to verify the mathematical accuracy of the all-in-fee calculation.

We obtained sufficient audit evidence to conclude that the all-in fee charged to the company complies with the contractual arrangements.

### *Other information in the annual report*

The Board of Directors is responsible for the other information in the annual report. The other information comprises all information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements and the remuneration report of BB Biotech AG and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information in the annual report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the annual report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

*Responsibilities of the Board of Directors for the consolidated financial statements*

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS, article 14 of the Directive on Financial Reporting (DFR) of SIX Swiss Exchange and the provisions of Swiss law, and for such internal control as the Board of Directors determines is 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 Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

*Auditor's responsibilities for the audit of the consolidated financial statements*

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 to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. 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.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTsuisse: <http://expertsuisse.ch/en/audit-report-for-public-companies>. This description forms part of our auditor's report.

**Report on other legal and regulatory requirements**

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Daniel Pajer	Stephanie Zaugg
Audit expert	Audit expert
Auditor in charge	

Zurich, 19 February 2020



# Financial statements BB Biotech AG



## Balance sheet as at December 31

(in CHF)

	Notes	2019	2018
<b>Current assets</b>			
Cash and cash equivalents		135 028	361 124
Other current receivables		6 291 277	262 533
		<b>6 426 305</b>	<b>623 657</b>
<b>Non-current assets</b>			
Investments		1 177 069 500	1 177 069 500
		<b>1 177 069 500</b>	<b>1 177 069 500</b>
<b>Total assets</b>		<b>1 183 495 805</b>	<b>1 177 693 157</b>
<b>Current liabilities</b>			
Other current liabilities	2.1	404 609	710 933 499
Accrued expenses		326 699	413 472
		<b>731 308</b>	<b>711 346 971</b>
<b>Total liabilities</b>		<b>731 308</b>	<b>711 346 971</b>
<b>Shareholders' equity</b>			
Share capital	2.2	11 080 000	11 080 000
Legal capital reserves			
– Paid-in capital reserve <sup>1)</sup>		20 579 224	20 579 224
Legal profit reserves			
– General legal reserve		4 500 000	4 500 000
Other reserves		226 827 756	226 827 756
Retained earnings	5/6	919 777 517	203 359 206
		<b>1 182 764 497</b>	<b>466 346 186</b>
<b>Total liabilities and shareholders' equity</b>		<b>1 183 495 805</b>	<b>1 177 693 157</b>

<sup>1)</sup> Of which CHF 20 441 000 not confirmed by the Swiss Tax Authorities due to present regulation

The financial statements were approved by the Board of Directors of BB Biotech AG on February 18, 2020.

## Statement of income for the year ended December 31

(in CHF)

	Notes	2019	2018
<b>Operating income</b>			
Income from investments		884 810 951	75 000 000
Other income	2.3	6 110 185	6 209 320
		<b>890 921 136</b>	<b>81 209 320</b>
<b>Operating expenses</b>			
Administrative expenses	2.4	(1 974 433)	(1 780 904)
Other expenses	2.5	(3 411 250)	(3 838 464)
		<b>(5 385 683)</b>	<b>(5 619 368)</b>
<b>Operating income before finance income and taxes</b>		<b>885 535 453</b>	<b>75 589 952</b>
Finance income		3 130	2 867
Finance expenses		(26 583)	(22 220)
<b>Operating income before tax</b>		<b>885 512 000</b>	<b>75 570 599</b>
Tax expenses	2.6	(123 687)	(45 933)
<b>Net income for the year</b>		<b>885 388 313</b>	<b>75 524 666</b>

## 1. Accounting policies

### General

The financial statements of BB Biotech AG (the Company) have been prepared in accordance with the provisions of commercial accounting as set out in the Swiss Code of Obligations. The financial statements have been prepared under the historical cost convention.

### Cash and cash equivalents

Cash and cash equivalents includes current accounts at banks. These are stated at the notional amount.

### Investments

The investments include the subsidiaries over which the Company has control. The Company controls an entity when the Company is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Initially and subsequently, investments are valued at historical cost. An impairment is recognized if the value in use is expected to permanently fall below the book value.

Income from investments is recognized in the income statement when the Company's right to receive the dividend payment is established.

### Receivables/liabilities

Receivables/liabilities are classified as current assets/liabilities if maturity is expected to be within twelve month after the balance sheet date. Else, they are classified as long-term assets/liabilities. Receivables/liabilities are recognized at notional value. Receivables/liabilities against related parties include transactions with the Board of Directors as well as companies and affiliates of the investment manager. Receivables/liabilities against group companies result mainly from cash-pooling activities of the Group. The Group consists of BB Biotech AG and the mentioned subsidiaries under 3.3.

### Treasury shares

Treasury shares are deducted from shareholders' equity. All profits and losses arising from trading in treasury shares are included in the income statement. A reserve for treasury shares is built for treasury shares held by subsidiaries. The reserve is based on cost prices.

## 2. Details and explanations to the financial statements

### 2.1 Other current liabilities

The other current liabilities comprise the following (in CHF):

	2019	2018
Third parties	303 770	451 957
Related parties	100 839	90 591
Group companies	–	710 390 951
	<b>404 609</b>	<b>710 933 499</b>

### 2.2 Shareholders' equity

The share capital of the Company consists of 55.4 mn fully paid registered shares (2018: 55.4 mn registered shares) with a par value of CHF 0.20 each (2018: CHF 0.20).

The General Shareholders' Meeting held on March 17, 2016, has approved a share buy-back program, whereby up to 5 540 000 shares may be repurchased by the Company. Until the end of the program, at April 11, 2019, no shares had been repurchased under this share buy-back program.

The Board of Directors has approved the repurchase of a maximum of 5 540 000 own registered shares with a nominal value of CHF 0.20 each. The share buy-back program will run from April 12, 2019, until April 11, 2022, at the latest. Until December 31, 2019, no shares had been repurchased under this share buy-back program. A repurchase would take place via second trading line for the purpose of a subsequent capital reduction.

At December 31, 2019 and 2018, the Company has neither authorized nor conditional capital.

### 2.3 Other income

Other income comprises the following (in CHF):

	2019	2018
Income group services	6 101 000	6 203 000
Other income	9 185	6 320
	<b>6 110 185</b>	<b>6 209 320</b>

### 2.4 Administrative expenses

Administrative expenses comprise the following (in CHF):

	2019	2018
Board compensation	1 151 684	954 033
Investment manager compensation	737 585	742 001
Staff costs	85 164	84 870
	<b>1 974 433</b>	<b>1 780 904</b>

The remuneration report discloses further details to the Board of Directors compensation.

### 2.5 Other expenses

Other expenses comprise the following (in CHF):

	2019	2018
Marketing and financial reporting	1 872 325	2 122 012
Consulting and audit	384 690	562 990
Bank charges	16 076	15 900
Other expenses	1 138 159	1 137 562
	<b>3 411 250</b>	<b>3 838 464</b>

### 2.6 Tax expenses

Tax expenses comprise the following (in CHF):

	2019	2018
Income taxes	32 000	32 000
Capital taxes	91 687	13 933
	<b>123 687</b>	<b>45 933</b>

## 3. Other information required by law

### 3.1 Name, legal form and registered office

BB Biotech AG is a limited company according to the Swiss Code of Obligation and has its registered office at Schwertstrasse 6 in Schaffhausen.

### 3.2 Declaration of number of full-time equivalents

The number of full-time equivalents did not exceed 10 in the calendar year 2019 (2018: below 10).

### 3.3 Investments

Investments of BB Biotech AG comprise, in the business years 2019 and 2018, the following subsidiaries:

Company	Capital in CHF	Capital and voting interest in %
Biotech Focus N.V., Curaçao	10 778	100
Biotech Growth N.V., Curaçao	10 778	100
Biotech Invest N.V., Curaçao	10 778	100
Biotech Target N.V., Curaçao	10 778	100

### 3.4 Audit fees

The audit fees comprise the following (in CHF):

	2019	2018
Audit fees	120 000	120 000
Audit-related fees	2 000	2 000
	<b>122 000</b>	<b>122 000</b>

### 3.5 Commitments and contingencies

The Company had no commitments or other off-balance sheet transactions open at December 31, 2019 (2018: none).

The operations of the Company are affected by legislative, fiscal and regulatory developments for which provisions are made where deemed necessary. The Board of Directors concludes that as at December 31, 2019, no proceedings existed which could have any material effect on the financial position of the Company (2018: none).

### 3.6 Subsequent events

There have been no events subsequent to December 31, 2019, which would affect the 2019 financial statements.

## 4. Other information

### 4.1 Significant shareholders

The Board of Directors is not aware of any major shareholder with a holding exceeding 3% of all votes as at December 31, 2019 and 2018.

### 4.2 Statement of holdings of the Board of Directors

As at December 31, the Board of Directors held the following registered shares of BB Biotech AG:

	2019	2018
Dr. Erich Hunziker, Chairman	1 457 884	1 457 884
Dr. Clive Meanwell, Vice-Chairman	5 163	5 163
Prof. Dr. Dr. Klaus Strein	100 168	100 168
Dr. Thomas von Planta	12 000	11 111

### 4.3 Management contracts

On behalf of the Company, the Board of Directors has entered into a management contract with Bellevue Asset Management AG (investment manager). In this contract, the investment manager commits to carry out management services relating to the investment activity and management of BB Biotech AG. Under this contract the Company paid in the business year 2019 CHF 737 585 (2018: CHF 742 001) to Bellevue Asset Management AG.

#### 4.4 Annual report and cash flow statement

Due to the fact that BB Biotech AG prepares consolidated financial statements in accordance with a recognized international accounting standard (IFRS), the Company doesn't prepare, in line with the legal requirements, an annual report and cash flow statement.

#### 5. Movements on retained earnings

in CHF	2019	2018
Retained earnings at the beginning of the year	203 359 206	310 654 540
Dividend	(168 970 000)	(182 820 000)
Net income for the year	885 388 313	75 524 666
<b>Retained earnings at the end of the year</b>	<b>919 777 517</b>	<b>203 359 206</b>

#### 6. Proposal of the Board of Directors for the appropriation of retained earnings

in CHF	2019 Proposal of the Board	2018 Resolution passed at the AGM
Retained earnings at the disposal of the Annual General Meeting	919 777 517	203 359 206
Dividend	188 360 000	168 970 000
Carry forward to the next period	731 417 517	34 389 206
	<b>919 777 517</b>	<b>203 359 206</b>



Report of the statutory auditor  
to the General Meeting of  
BB Biotech AG  
Schaffhausen

## Report on the audit of the financial statements

### *Opinion*

We have audited the financial statements of BB Biotech AG, which comprise the balance sheet as at 31 December 2019, statement of income and notes for the year then ended, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 60 to 65) as at 31 December 2019 comply with Swiss law and the company's articles of incorporation.

### *Basis for opinion*

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the «Auditor's responsibilities for the audit of the financial statements» section of our report.

We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### **Our audit approach**

#### *Materiality*

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the financial statements as a whole.

<b>Overall materiality</b>	CHF 11 827 000
<b>How we determined it</b>	1% of total shareholders' equity
<b>Rationale for the materiality benchmark applied</b>	We chose shareholders' equity as the benchmark because, in our view, it is the most relevant benchmark for investors and it is a generally accepted benchmark for investment companies.

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#### *Audit scope*

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we considered where subjective judgements were made; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

#### *Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority*

We have determined that there are no key audit matters to communicate in our report.

#### *Responsibilities of the Board of Directors for the financial statements*

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

#### *Auditor's responsibilities for the audit of the financial statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. 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 financial statements.

A further description of our responsibilities for the audit of the financial statements is located at the website of EXPERTsuisse: <http://expertsuisse.ch/en/audit-report-for-public-companies>. This description forms part of our auditor's report.

#### **Report on other legal and regulatory requirements**

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Daniel Pajer  
Audit expert  
Auditor in charge

Stephanie Zaugg  
Audit expert

Zurich, 19 February 2020



# Corporate Governance

Corporate governance is an integral component to the business of BB Biotech AG (the Company). The Board of Directors is committed to implement corporate governance policies which are aligned with the size and complexity of the Company's activities. We ensure transparency for our shareholders by disclosing the articles of incorporation, the organizational regulations as well as Audit Committee Charter and Remuneration and Nomination Committee Charter on our homepage (<https://www.bbbiotech.ch/en/bb-biotech/corporate-governance/corporate-governance-report/>). This report is intended to supplement the annual report with respect to corporate governance policies and implementation of these policies in our business. As BB Biotech AG is listed on the Swiss, German, and Italian stock exchanges, the Company is required to comply with the rules and regulations that apply to each of these markets.

### 1. Introductory remarks with respect to the specific structure of BB Biotech AG as an investment company

BB Biotech AG is an investment company listed on a stock exchange according to article 2 paragraph 3 of the Swiss Federal Act on Collective Investment Schemes (CISA) in the form of a corporation limited by shares. As a corporation limited by shares which is listed on a stock exchange, BB Biotech AG is subject to the supervision and regulation by the SIX Swiss Exchange. Therefore, BB Biotech AG is exempted from the supervision of the Swiss Financial Market Supervisory Authority FINMA as well as from the regulation pursuant to the Financial Institutions Act (FinIA).

As an investment company, the sole purpose of BB Biotech AG is the management of the assets of its investors. The BB Biotech group does not pursue any commercial or operational activity other than investing in the biotech industry.

### 2. Group structure and shareholders

Please refer to note 1 of the consolidated annual financial statements on page 40. In addition hereto, we wish to advise that the Board of Directors is not aware of any cross-holdings with other companies exceeding a limit of 5% in terms of capital or the number of votes. Information on key shareholders is listed in note 17 to the consolidated annual financial statements on page 52. The notifications which have been submitted to the Company and the disclosure office of the SIX Swiss Exchange AG during the fiscal year pursuant to article 120 of the Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading and which have been published on the latter's electronic publication platform may be viewed via the search function on <https://www.six-exchange-regulation.com/de/home/publications/significant-shareholders.html>.

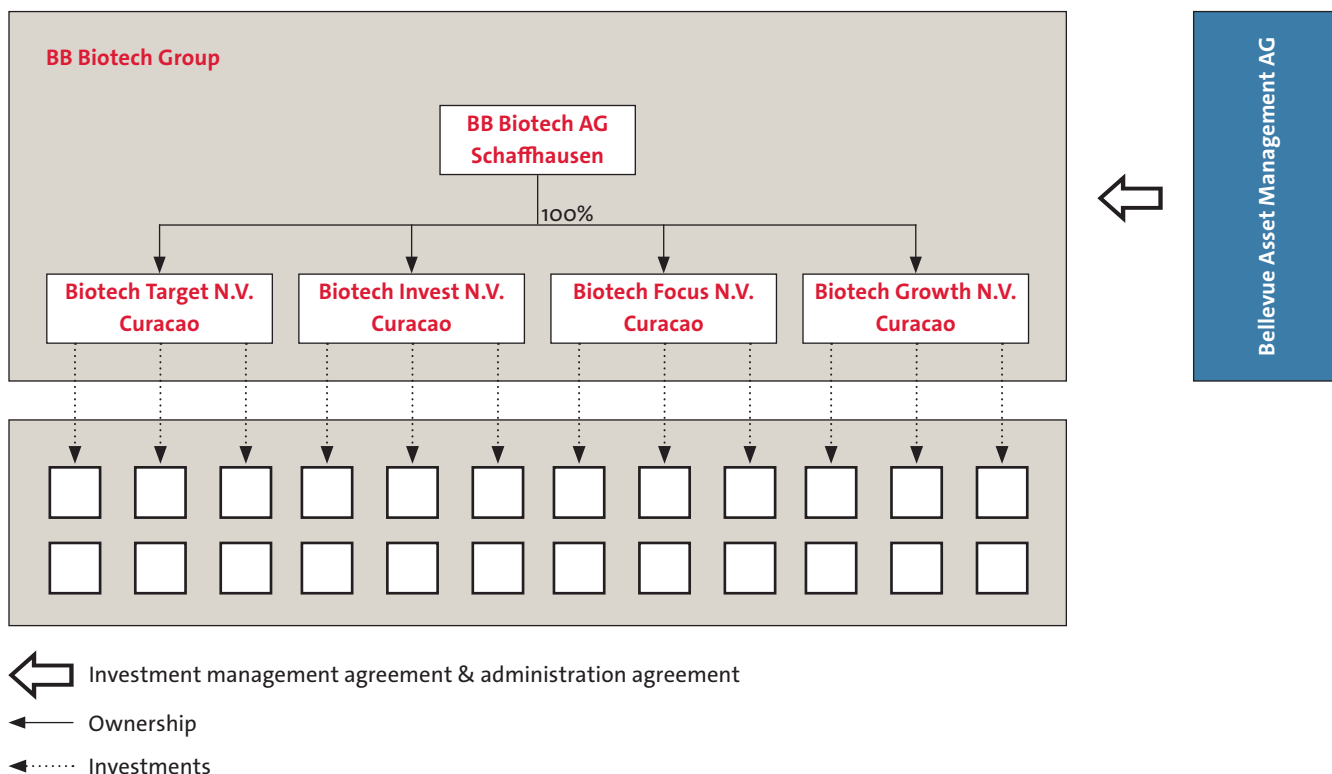
#### 2.1 Group structure

BB Biotech AG (ISIN CH0038389992) has its registered office in Schwertstrasse 6, Schaffhausen in Switzerland. Its principal activity is to invest in companies in the biotechnology industry. These companies are active in the research, development and commercialization of therapies and drugs.

BB Biotech AG is listed on the SIX Swiss Exchange, in the «Prime Standard Segment» of the German Exchange as well as in the «Star Segment» of the Italian Exchange. Additional information on this can be found on: <https://www.bbbiotech.ch/en/nc/bb-biotech/investor-relations/facts-figures/>.

The investments are held through its four, fully owned subsidiaries:

Company name	Country	BB Biotech AG interest %	Share Capital
Biotech Focus N.V.	Curaçao	100	CHF 10 778
Biotech Growth N.V.	Curaçao	100	CHF 10 778
Biotech Invest N.V.	Curaçao	100	CHF 10 778
Biotech Target N.V.	Curaçao	100	CHF 10 778



BB Biotech AG controls and is the ultimate parent company of its subsidiaries (Subsidiaries). Together they form the BB Biotech Group (Group). In this function, the Company performs tasks of management, organization as well as financing for itself and for its Subsidiaries. To the extent permitted by applicable law, the corporate bodies of the Company may therefore also promulgate guidelines and directives for the Subsidiaries. Notwithstanding these endeavors, the legal independence of the Subsidiaries and the provisions of applicable laws, rules and regulations relating to them must be observed to the extent legally required.

On behalf of the Company, the Board of Directors has entered into a management contract with Bellevue Asset Management AG, Küssnacht (Switzerland). In this contract, the investment manager commits to carry out management services relating to the investment activity and management of BB Biotech AG. Bellevue Asset Management AG is subject to supervision by the Swiss Financial Market Supervisory Authority FINMA and has a license as authorized manager for collective assets. Bellevue Asset Management AG is fully owned by Bellevue Group AG which is an independent Swiss financial boutique listed on the SIX Swiss Exchange.

## 2.2 Significant shareholders

The Board of Directors is not aware of any major shareholder with a holding exceeding 3% of all votes as at the balance sheet date. 100% of BB Biotech AG's share capital is free float.

## 3. Capital structure

As of December 31, 2019, the Company's nominal value of the share capital of CHF 11 080 000 consisted of 55 400 000 fully paid up registered shares with a par value of CHF 0.20 each. There is only one share class. To each registered share corresponds a voting right. Voting rights may be exercised only after a shareholder has been registered in the share register of the Company as a shareholder with the right to vote. Each registered share is entitled to dividend payment. No shares certificates are issued. There is no authorized capital or conditional capital outstanding. There are no participation certificates or dividend-right certificates.

The capital structure has not changed in the period over the last three years (financial years 2017, 2018, 2019).

#### 4. Limitations on transferability

BB Biotech AG may decline a registration with voting rights if a shareholder does not declare that it has acquired the shares in its own name and for its own account. If the shareholder refuses to make such declaration, it will be registered as a shareholder without voting rights. A person failing to expressly declare in its registration/application that it holds the shares for its own account (a nominee), will be entered in the share register with voting rights, provided that such nominee has entered into an agreement with BB Biotech AG concerning its status.

#### 5. Board of Directors

##### 5.1 Members, background, nationality, and stock holdings

Dr. Erich Hunziker

Chairman of the Board of Directors since 2013. Member of the Board since 2011.

Swiss national.

He previously served as CFO of Roche from 2001 to 2010. From 1983 to 2001 he held various executive positions at Corange, Boehringer Mannheim and, before joining Roche, at Diethelm-Keller-Gruppe, where he ultimately served as CEO. Dr. Hunziker has a Ph.D. in Industrial Engineering from the Swiss Federal Institute of Technology in Zurich, Switzerland.

Shareholding in BB Biotech AG as at December 31, 2019: 1 457 884 registered shares (2018: 1 457 884 registered shares)

Other directorships: Dr. Erich Hunziker is Chairman of the Board of Directors of Light Chain Biosciences AG, NovImmune SA, Entsia International AG and discoveric ag. Furthermore he is a member of the Board of Directors of LamKap Bio alpha AG, LamKap Bio beta AG and LamKap Bio gamma AG.

Dr. Clive Meanwell

Vice-Chairman of the Board of Directors since 2011. Member of the Board of Directors since 2004.

British national.

He founded The Medicines Company in 1996 and from then until January 6, 2020 he was a Member of the BoD and held a range of leadership positions including Chairman, Executive Chairman, CEO and CIO. From 1995 to 1996 he was a founding partner and managing director of MPM Capital L.P. He previously held various positions at Hoffmann-La Roche in Basel and Palo Alto, California. Dr. Meanwell received his M.D. and Ph.D. from the University of Birmingham in the UK where he also trained in medical oncology.

Shareholding in BB Biotech AG as at December 31, 2019: 5 163 registered shares (2018: 5 163 registered shares)

Other directorships: Dr. Clive Meanwell is a member of the board of directors at The Medicines Company.

Prof. Dr. Dr. Klaus Strein

Member of the Board of Directors since 2013.

German national.

He worked at Roche from 1998 to 2011, during which time he held various positions including Head of Pharma Research. From 1979 to 1998 he held various positions at Boehringer Mannheim. Prof. Strein holds post-graduate degrees in chemistry and medicine from the University of Heidelberg, Germany, where he was also appointed Adjunct Professor.

Shareholding in BB Biotech AG as at December 31, 2019: 100 168 registered shares (2018: 100 168 registered shares)

Other directorships: Prof. Dr. Dr. Klaus Strein is Chairman of the Board of Directors of LamKap Bio alpha AG, LamKap Bio beta AG and LamKap Bio gamma AG and a member of the Board of Directors of NovImmune SA and Light Chain Biosciences AG.

Dr. Thomas von Planta.

Member of the Board of Directors since 2019.

Swiss national.

Since 2006 he is the owner/director of CorFinAd AG – Corporate Finance Advisory. From 2002 to 2006 he was Head of Corporate Finance and member of the Executive Board at Bank Vontobel. From 1992 to 2002 he worked in the Equity Capital Markets Group & Investment Banking Division of Goldman Sachs. He holds a degree in law from University of Basel and University of Geneva (Dr. iur.).

Shareholding in BB Biotech AG as at December 31, 2019: 12 000 registered shares (2018: 11 111 registered shares)

Other directorships: Dr. Thomas von Planta is a member of the Board of Directors of Bâloise Holding AG and a member of the advisory board of Harald Quandt Industriebeteiligungen GmbH.

The members of the Board of Directors have no executive functions, neither today nor in the last three years. Moreover, no business relations are in place between the Board members and BB Biotech AG. More detailed résumés are available on our website in the section «about us» (<https://www.bbbiotech.ch/en/bb-biotech/about-us/board-of-directors/>).

## 5.2 Number of permissible external mandates

No member of the Board of Directors can have more than ten additional mandates, thereof no more than four in listed entities.

The detailed rule with respect to the number of permissible external mandates of members of the Board of Directors is defined in article 23 of the articles of incorporation of the Company. The articles of incorporation are available for download under the following link: [www.bbbiotech.ch/bylaws](http://www.bbbiotech.ch/bylaws).

## 5.3 Election and term of office

The Board of Directors is elected by a simple quorum for a term of office of one year. There are no limitations the board members' tenure. The members of the Board of Directors have first been elected at the following General Meetings:

Dr. Erich Hunziker:	2011 (Chairman since 2013)
Dr. Clive Meanwell:	2004 (Vice-Chairman since 2011)
Prof. Dr. Dr. Klaus Strein:	2013
Dr. Thomas von Planta:	2019

## 5.4 Internal organization

The Board of Directors consists of a Chairman, Vice-Chairman and two members. The Board has two committees; Audit Committee, Remuneration and Nomination Committee. The members of the Board of Directors are appointed in the following committees:

Dr. Erich Hunziker, Chairman

Dr. Clive Meanwell, Vice-Chairman: Chairman of the Remuneration and Nomination Committee and Member of the Audit Committee

Prof. Dr. Dr. Klaus Strein, Member: Member of the Remuneration and Nomination Committee

Dr. Thomas von Planta, Member: Chairman of the Audit Committee

The Board of Directors has extensive experience in all relevant areas, especially from the healthcare and financial industry. With this experience the board members are well suited to monitor the Company's activities.

The Chairman and members of the Board of Directors are elected by the shareholders at the Company's general meeting. If the position as Chairman is vacant, the Board of Directors will nominate one of its members to serve as Chairman until the end of the next general meeting.

Board meetings are normally convened by the Chairman or, in his absence, the Vice-Chairman. The individual board members can also require that the Chairman calls for a board meeting. The Board of Directors receives comprehensive information regarding each of the agenda items at the board meetings. The Board of Directors generally meets once per month via video or telephone conference. In addition, two three-day strategy meetings take place each year. The meetings are also attended by representatives of the investment manager respectively administrator. In its meetings, the Board of Directors regularly examines the compliance with the investment guidelines. In addition, the representatives entrusted with the asset management present the respective investment and divestiture decisions. The latter examines the individual investment decisions with respect to the compliance with the investment strategy as well as the investment process. On a yearly basis, the Board of Directors performs and approves a comprehensive risk assessment. Financial risk management is disclosed in note 3 on page 43ff in the consolidated financial statements. Performance of relevant service providers as well as the auditor are evaluated at least on a yearly basis.

During the fiscal year 2019, nine ordinary board meetings (duration of one hour on average) and two strategy meetings of three days (duration of 27 hours on average) each took place. All of the board members participated in all board meetings in 2019.

The Board of Directors passes its resolutions by a majority of the votes and the Chairman has the casting votes in case of a tie. The Board of Directors is quorate when the majority of its members are present at the board meetings.

### *Audit Committee*

The members of the Audit Committee are appointed by the Board of Directors. The Audit Committee supports the Board of Directors in the following areas: financial reporting, auditing/controlling, compliance and corporate governance.

The members of the Audit Committee hold quarterly meetings. During 2019, four ordinary meetings of the Audit Committee took place (duration of one hour on average). All members of the Committee participated in all meetings.



### *Remuneration and Nomination Committee*

The members of the Remuneration and Nomination Committee are appointed by the shareholders. The Remuneration and Nomination committee supports the Board of Directors in the following areas: composition of Board and nomination of new board members, compensation policy and guidelines, performance targets and preparation of proposals regarding compensation to the Board of Directors. The Remuneration and Nomination Committee holds at least one meeting a year. During 2019, two ordinary meetings of the Remuneration and Nomination Committee took place (duration of one hour on average). All members of the Committee participated in all meetings.

#### **5.5 Directors' dealings**

BB Biotech AG publishes each purchase/sale of BB Biotech AG stocks by members of the Board of Directors as well as by first-degree relatives of such persons within three trading days. This information is made available for 30 days on the website in the section «Corporate Governance/Directors' dealings» (<https://www.bbbiotech.ch/en/bb-biotech/corporate-governance/directors-dealings/>).

#### **6. Investment management**

BB Biotech AG as an investment company listed on a stock exchange does not have a management of its own within the meaning of article 716b CO, respectively the Ordinance Against Excessive Compensation in Public Corporations. The Board of Directors of BB Biotech AG has – as it is customary for investment companies – delegated the investment management based on the management contract to a specialized third party, namely to Bellevue Asset Management AG, Küsnacht (ZH). Bellevue Asset Management AG offers a select range of active equity strategies in fast-growing markets, the healthcare sector and in other special themes such as owner-managed companies, as well as holistic investment strategies across all traditional asset classes.

The supervision of Bellevue Asset Management AG acting as external investment manager and its adherence to the investment policy remains with the Board of Directors of BB Biotech AG as a non-transferable duty. The investment management contract is valid for an indefinite period and can be terminated by either party with a notice period of twelve months with effect as per the end of the following calendar year. Bellevue Asset Management AG has a team of dedicated experts and analysts to fulfill the duties of the investment management contract. The investment strategy is disclosed in the annual report on page 12.

Since January 1, 2014, the remuneration paid to the investment manager has been based upon a 1.1% p.a. all-in fee on the average market capitalization without any additional fixed or performance-based elements of compensation, which is paid on a monthly basis. The amount is disclosed in note 8 on page 49 of the consolidated financial statements.

The Board of Directors approves on a yearly basis that an adequate portion of the fees shall be used for incentives and remuneration of those people at Bellevue Asset Management AG who are assigned with tasks under the investment management and administrative agreements.

In order to align interest between shareholders of BB Biotech AG and these people at Bellevue Asset Management AG, a long-term incentive plan is in place. Pay-out after three years depends on the performance of the share price of BB Biotech AG vs. performance criteria (absolute return, local benchmark, industry benchmark) and can vary between 0% and 100%.

#### **7. Remuneration**

See notes 8 and 16 on pages 49 and 52 of the consolidated financial statements as well as the remuneration report hereinafter for details relating to the remuneration of the Board of Directors and the process of determining its remuneration.

The rules governing the approval by the General Meeting of the remuneration of the members of the Board of Directors as well as the principles governing the remuneration of the members of the Board of Directors can be found in articles 19–21 of the articles of incorporation of the Company. The articles of incorporation do not contain any provision with respect to loans, credits and pension benefits to the members of the Board of Directors. The articles of incorporation are available for download under the following link: [www.bbbiotech.ch/bylaws](http://www.bbbiotech.ch/bylaws).

#### **8. Stockholders' rights of cooperation**

##### **8.1 Limitations to voting rights; voting by proxy**

There are no limitations to voting rights and no internal rules at variance from the statutory provisions concerning attendance of a General Meeting. The articles of incorporation do not contain any provision with respect to the issuance of directives to the independent voting rights representative or to the electronic participation at a General Meeting.

## 8.2 General Meeting

There are no statutory rules relating to the presence of a majority quorum which differ from the statutory provisions. The convening of a General Meeting as well as the request that items be included in the agenda are governed by article 7 of the articles of incorporation of the Company as well as the statutory provisions of law.

## 8.3 Dividend policy

Since 2013, BB Biotech AG has a structured payout policy in place designed to give shareholders a return of up to 10% p.a. It consists of the following elements:

BB Biotech intends to continue to propose dividend payments that correspond to a 5% return on the volume weighted average price of its shares in December of the respective fiscal year. The dividend is normally paid out in one installment after the annual general meeting in March each year. Besides the attractive dividend yield, BB Biotech is also conducting continuous share buybacks between 0 and up to 5% of share capital p.a. Share repurchases will be conducted within defined parameters.

## 9. Change-of-control and defensive measures

### 9.1 Obligatory offer for sale

An opting-out rule is in place.

### 9.2 Change-of-control clauses

No change-of-control clauses are in place in favor of the Board of Directors.

## 10. Audits

### 10.1 Duration of mandate and term of office of the lead auditor

Since the fiscal year 1994, PricewaterhouseCoopers AG has been the auditor of BB Biotech AG. As required by Swiss law, lead auditor rotation applies after maximal seven years. The current lead auditor, Daniel Pajer, has been responsible for the audit of the Company's books since the fiscal year 2017.

### 10.2 Fees

The following fees for professional services in the fiscal year ended December 31, 2019, were agreed and paid:

- Fees for the annual audit and quarterly review of the financial statements: CHF 120 000
- Fees for audit-related services (Audit of AML procedures as required by law): CHF 2 000

### 10.3 Instruments of information of the external audit

The audit committee prepares proposals to the Board of Directors for the appointment and removal of the auditors. The audit committee is also responsible for supervising the auditors to ensure their qualifications, independence and performance. The investment manager and the auditors are at least quarterly in contact with each other. The auditor performs reviews on quarterly consolidated financial statements and issues respective opinions.

The auditors attend at least two audit committee meetings per year. Written reporting of the auditor consists of an annual audit plan as well as a comprehensive report to the Board of Directors on the result of the audit of the financial statements.

## 11. Information policy/diary of Company events

Please refer to «Shareholder information» at page 82.

## 12. Trading in own stocks

BB Biotech AG operates, in line with legal and internal regulations, as an active purchaser/seller of own stocks itself on the market, securing additional liquidity in the process.



# Remuneration Report

This remuneration report for the fiscal year 2019 outlines the remuneration system as well as the remuneration of the members of the Board of Directors of BB Biotech AG. The content and scope of the information contained in this report is in accordance with the provisions of the Ordinance Against Excessive Compensation in Public Corporations (the Ordinance) and with the Directive on Information relating to Corporate Governance (DCG) of the SIX Swiss Exchange.

## **1. Responsibilities and authorities with respect to remuneration**

### **1.1 Introductory remarks relating to the specific structure of BB Biotech AG as an investment company**

The Board of Directors of BB Biotech AG has not made use of its competence to delegate the executive management of all or part of the Company's business pursuant to article 716b CO and therefore manages the business of the Company itself, to the extent it has not been delegated to the investment manager within the framework of the management contract. Accordingly, BB Biotech AG does not have an executive management pursuant to article 716b CO or the Ordinance.

For details, please refer to note 7.

### **1.2 Responsibilities and authorities with respect to the remuneration**

The Remuneration and Nomination Committee is responsible for ensuring that the process relating to the determination of the remuneration is held on a fair and transparent basis and that such process is controlled effectively. The adopted remuneration process shall serve as a basis for an adequate decision with respect to services rendered as well as an appropriate incentive to the individual members of the Board of Directors, taking into account the long-term interests of the shareholders and the Company's success. In addition, the Remuneration and Nomination Committee assists the Board of Directors in determining the principles of the remuneration strategy of BB Biotech AG.

The Remuneration and Nomination Committee submits proposals to the Board of Directors for resolution in the following areas:

- Amount and composition of the aggregate remuneration of the Board of Directors;
- Amount and composition of the remuneration of the Chairman of the Board of Directors;
- Amount and composition of the remuneration of the Vice-Chairman as well as the other members of the Board of Directors;
- Amount and composition of the additional remuneration of the members of a Board of Directors Committee.

Furthermore, the Remuneration and Nomination Committee assists the Board of Directors in resolving on conclusion, termination, or amendment of contracts entered into with external asset managers and thus in particular on the amount of the compensation to be paid under the respective contracts.

## **2. Remuneration of the members of the Board of Directors**

### **2.1 Principles**

The remuneration of the members of the Board of Directors is based on the scope of activity and responsibility of the individual members (Chairman of the Board of Directors, Vice-Chairman of the Board of Directors, member of the Board of Directors; involvement in committees: chairmanship of a committee, member of a committee).

The remuneration of the Board of Directors consists of the following elements:

- Fixed remuneration (disbursement by cash compensation);
- Social insurance contributions and duties.

The limitation to a fixed remuneration ensures that the focus of the Board of Directors lies on the long-term success of BB Biotech AG. Its amount takes account of the workload and responsibility of the individual members of the Board of Directors. Therefore, the remuneration of the Board of Directors has been separated from the compensation of the investment manager; thus, the Board of Directors does not have an incentive to take excessively high risks.

Upon request of the Remuneration and Nomination Committee, the entire Board of Directors resolves once a year on the amount of the remuneration of the members of the Board of Directors and the committees.

The Board of Directors had determined the fixed remuneration of its members (as a member of the Board of Directors or a committee) as follows:

	2019 in CHF	2018 in CHF
<b>Function/Responsibility</b>		
Chairman	360 000	360 000
Vice-Chairman	250 000	250 000
Members	437 500	250 000
Chairman of the Remuneration and Nomination Committee	15 000	15 000
Member of the Remuneration and Nomination Committee	10 000	10 000
Chairman of the Audit Committee	15 000	15 000
Member of the Audit Committee	10 000	10 000
	<b>1 097 500</b>	<b>910 000</b>

## 2.2 Remuneration of the individual members of the Board of Directors in the reporting year (audited)

In the reporting year 2019, the four members of the Board of Directors received a total remuneration of CHF 1 151 684 (2018: CHF 954 033). From this amount, CHF 1 097 500 (2018: CHF 910 000) have been paid in the form of a fixed remuneration for the work on the Board of Directors and on the committees of the Board of Directors. The social insurance contributions and the duties amounted to a total of CHF 54 184 (2018: CHF 44 033).

The individual members of the Board of Directors were paid the following remuneration:

### Fiscal year 2019

Name/Function	RNC <sup>1)</sup>	AC <sup>2)</sup>	Period	Fixed remuneration	Committee remuneration	Social insurance contributions and duties	Total
Hunziker Erich, Chairman		X	01.01.2019 – 31.12.2019	360 000	3 750	23 012	386 762
Meanwell Clive, Vice-Chairman	X	X	01.01.2019 – 31.12.2019	250 000	25 000	–	275 000
Strein Klaus, Member	X		01.01.2019 – 31.12.2019	250 000	10 000	16 130	276 130
von Planta Thomas, Member		X	21.03.2019 – 31.12.2019	187 500	11 250	15 043	213 793

<sup>1)</sup> RNC = Remuneration and Nomination Committee

<sup>2)</sup> AC = Audit Committee (Erich Hunziker until March 21, 2019)

### Fiscal year 2018

Name/Function	RNC <sup>1)</sup>	AC <sup>2)</sup>	Period	Fixed remuneration	Committee remuneration	Social insurance contributions and duties	Total
Hunziker Erich, Chairman		X	01.01.2018 – 31.12.2018	360 000	15 000	27 903	402 903
Meanwell Clive, Vice-Chairman	X	X	01.01.2018 – 31.12.2018	250 000	25 000	–	275 000
Strein Klaus, Member	X		01.01.2018 – 31.12.2018	250 000	10 000	16 130	276 130

<sup>1)</sup> RNC = Remuneration and Nomination Committee

<sup>2)</sup> AC = Audit Committee

## 3. Remuneration of related parties at non-market conditions

In the reporting year 2019, no remuneration which was not at arm's length terms was paid to related parties (2018: none).

## 4. Remuneration of former members of the corporate bodies

In the reporting year 2019, no remuneration was paid to former members of the corporate bodies (2018: none).

#### **5. Loans and credits to the members of the Board of Directors**

The articles of incorporation of BB Biotech AG do not provide that loans and credits may be granted to the members of the Board of Directors. Accordingly, no loans or credits which BB Biotech AG has granted to current or former members of the Board of Directors or to related parties were outstanding as of December 31, 2019 (December 31, 2018: none).

#### **6. Contractual terms at retirement from BB Biotech AG**

No member of the Board of Directors has a contract with BB Biotech AG providing for a severance payment in the event of leaving BB Biotech AG.

#### **7. Management contracts**

On behalf of the Company, the Board of Directors has entered into a management contract with Bellevue Asset Management AG (investment manager). In this contract, the investment manager commits to carry out management services relating to the investment activity and management of BB Biotech AG. The management contract is valid for an indefinite period and can be terminated by either party with a notice period of twelve months with effect as per the end of the following calendar year. The remuneration of the investment manager is determined by the respective contract and corresponds to a fixed fee of 1.1% p.a. on the average market capitalization without any additional fixed or performance-based elements.



Report of the statutory auditor  
to the General Meeting of  
BB Biotech AG  
Schaffhausen

### **Report of the statutory auditor to the General Meeting on the remuneration report 2019**

We have audited the remuneration report of BB Biotech AG for the year ended 31 December 2019. The audit was limited to the information according to articles 14 – 16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in notes 2.2, 3, 4 and 5 on pages 79 to 80 of the remuneration report.

#### *Board of Directors' responsibility*

The Board of Directors is responsible for the preparation and overall fair presentation of the remuneration report in accordance with Swiss law and the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance). The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

#### *Auditor's responsibility*

Our responsibility is to express an opinion on the remuneration report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report complies with Swiss law and articles 14 – 16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the remuneration report with regard to compensation, loans and credits in accordance with articles 14 – 16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the remuneration report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the remuneration report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### *Opinion*

In our opinion, the remuneration report of BB Biotech AG for the year ended 31 December 2019 complies with Swiss law and articles 14 – 16 of the Ordinance.

PricewaterhouseCoopers AG

Daniel Pajer  
Audit expert  
Auditor in charge

Stephanie Zaugg  
Audit expert

Zurich, 19 February 2020

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## Company profile

BB Biotech AG acquires holdings in companies in the biotechnology growth market and is currently one of the world's largest investors in the sector. The focus of the holdings is on quoted companies that are concentrating on the development and marketing of innovative medicines. For the selection of holdings, BB Biotech AG relies on fundamental analysis by physicians and molecular biologists. The Board of Directors has many years of industrial and scientific experience.

## Official listing and share structure as at December 31, 2019

<b>Foundation:</b>	November 9, 1993; Schaffhausen, Switzerland
<b>Issue price adj. November 15, 1993:</b>	CHF 4.752
<b>Official listing:</b>	December 27, 1993, in Switzerland; December 10, 1997, in Germany; October 19, 2000, in Italy
<b>Share structure:</b>	CHF 11.08 mn nominal, 55 400 000 registered shares with a par value of CHF 0.20 each
<b>Shareholders, free float:</b>	Institutional and private investors, 100.0% free float
<b>Security number Switzerland:</b>	3 838 999
<b>Security number in Germany and Italy:</b>	AoNFN3
<b>ISIN:</b>	CH0038389992

## Shareholder information

The Company publishes its net asset value daily via the major stock market information services and on its website [www.bbitech.com](http://www.bbitech.com). The portfolio composition is published at least every three months within quarterly reports.

## Quotes and reports

<b>NAV:</b>	<b>in CHF</b>	– Datastream: S:BINA – Reuters: BABB – Telekurs: BIO resp. 85, BB1 – (Investdata) – Finanz & Wirtschaft (CH)	<b>in EUR</b>	– Datastream: D:BBNA – Reuters: BABB
<b>Stock price:</b>	<b>in CHF (SIX)</b>	– Bloomberg: BION SW Equity – Datastream: S:BIO – Reuters: BION.S – Telekurs: BIO – Finanz & Wirtschaft (CH) – Neue Zürcher Zeitung (CH)	<b>in EUR (Xetra)</b>	– Bloomberg: BBZA GY Equity – Datastream: D:BBZ – Reuters: BION.DE
			<b>in EUR (STAR)</b>	– Bloomberg: BB IM Equity – Datastream: I:BBB – Reuters: BB.MI

## Corporate calendar 2020

<b>Annual General Meeting 2020</b>	March 19, 2020, 3.00 PM CET Park Casino Steigstrasse 26 CH-8200 Schaffhausen
<b>Interim Report as at March 31, 2020</b>	April 24, 2020, 7.00 AM CET
<b>Interim Report as at June 30, 2020</b>	July 24, 2020, 7.00 AM CET
<b>Interim Report as at September 30, 2020</b>	October 23, 2020, 7.00 AM CET

The BB Biotech annual report is published in English. A translated German and Italian version is also available. In case of any deviations the English shall prevail over the German and Italian text.

## Investor Relations



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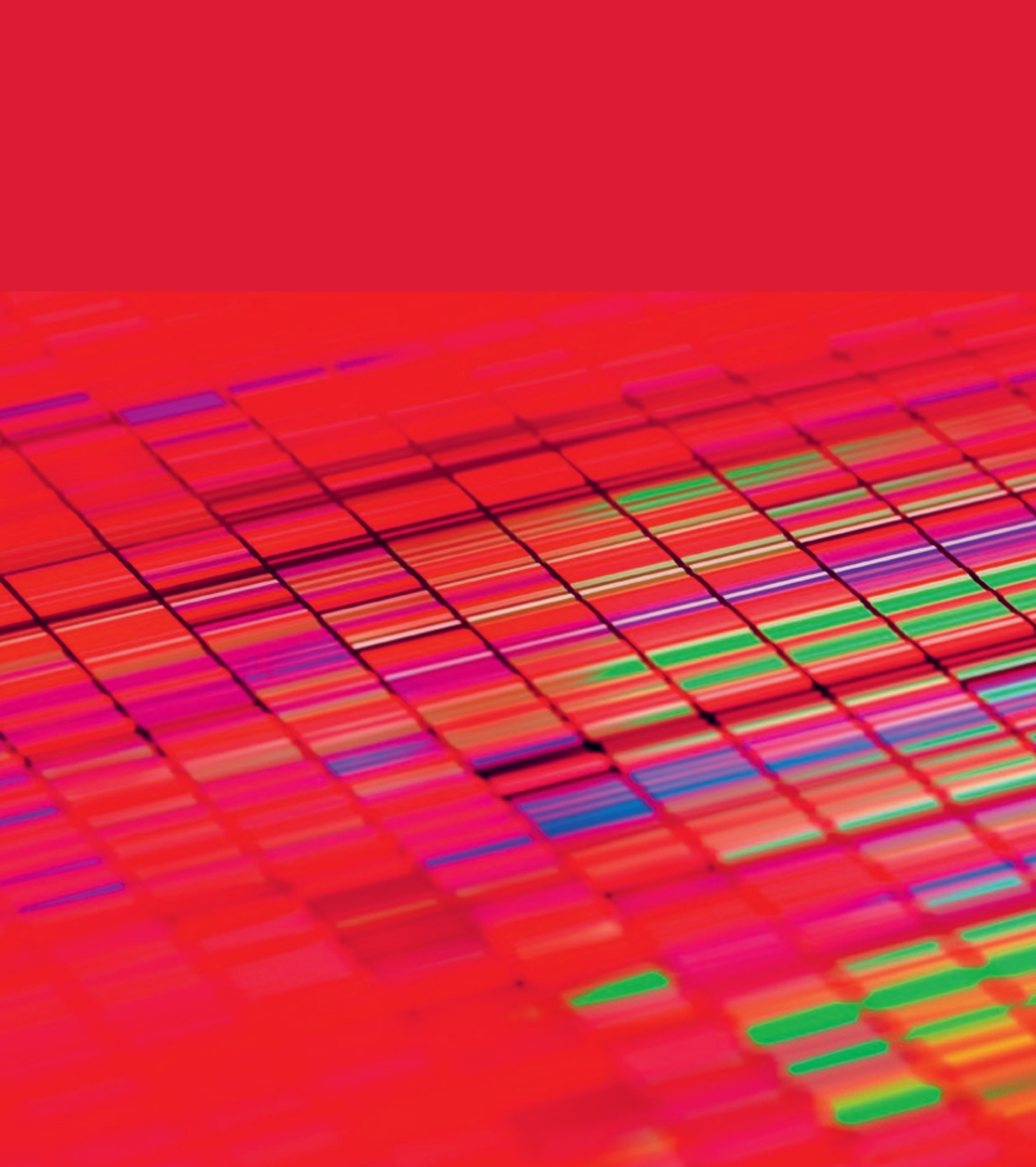


Illustration: Colored DNA sequencing.