Annual Report

BIOARCTIC

2019

BIOARCTIC

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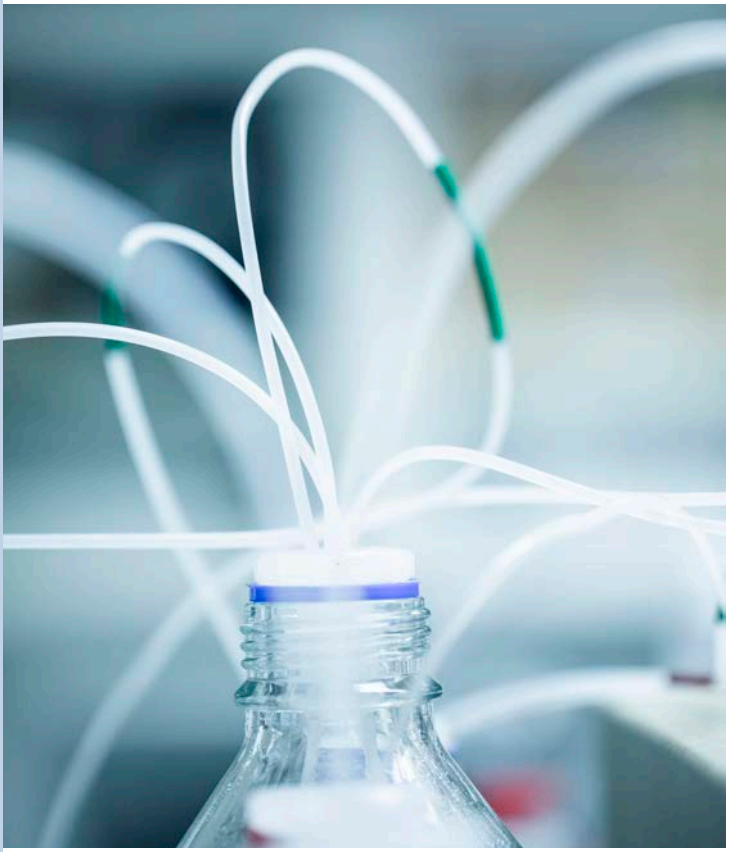
BioArctic is breaking new ground with the aim of slowing, and in the future stopping, diseases in the central nervous system.

BIOARCTIC IN THREE MINUTES

BioArctic seeks to improve the lives of patients with central nervous system disorders. The company develops drugs and diagnostic tools with the potential to revolutionize the treatment of primarily Alzheimer's disease and Parkinson's disease. BioArctic is also working on a unique technology to improve the transport of biological drugs in the brain. To expand the opportunities for value creation, BioArctic collaborates closely with leading academic research groups and with partners in the global pharma industry.



OPERATING REVENUE 2015–2019

MSEK 1,380

BioArctic's operating revenue is based on the company's ability to develop innovative drug candidates and sign partnership agreements with global pharma companies. 2019 is the seventh consecutive year in which the company generated an operating profit.

CASH AND CASH EQUIVALENTS, 2019

MSEK 1,113

BioArctic's cash holdings continued to increase during the year, totaling MSEK 1,113 end of 2019, which is MSEK 195 more than last year. The company's strong financial position provides a high level of flexibility and facilitates robust efforts in existing and new projects and with a focus on patient benefit and shareholder value.

TIMELINE

1992
Professor Lars Lannfelt and his colleagues discover a mutation with links to the early development of Alzheimer's disease.

2000
Patent application for discovery of the Arctic mutation and a treatment strategy for Alzheimer's disease submitted in the US.

2001
The discovery of the Arctic mutation is published.

2003
BioArctic is founded by Lars Lannfelt and Pär Gellerfors.

2005
A research collaboration is inaugurated with the global pharma company Eisai concerning treatment of Alzheimer's disease.

2006
BioArctic moves into its own premises in Stockholm, Sweden.

2007
The first patent linked to Alzheimer's disease is approved in the US. Eisai inlicenses BAN2401 for treatment of Alzheimer's disease.

2008
BioArctic enters into a licensing agreement with Swenora Biotech AB regarding SC0806, a method for treating complete spinal cord injuries.

2010
The clinical development of BAN2401 for Alzheimer's disease is initiated.

2012
BioArctic receives grants from Vinnova for the clinical development of SC0806, a treatment concept for complete spinal cord injuries.

ALZHEIMER'S DISEASE

BioArctic's most advanced drug candidate against Alzheimer's disease, BAN2401, and its backup compound have been outlicensed to Eisai for total payments of up to approximately SEK 2.3 billion. In addition, BioArctic has the right to a sales-based royalty. BAN2401 is a potential disease-modifying antibody that has shown positive results in a Phase 2b study and advanced into clinical Phase 3 during the year. Moreover, BioArctic has a number of fully-owned antibodies in the research phase for various mechanisms of action against Alzheimer's disease.

PARKINSON'S DISEASE

BioArctic has outlicensed its portfolio of disease-modifying antibodies against alpha-synuclein to AbbVie, for total payments of up to approximately SEK 7.2 billion. In addition, BioArctic has the right to a sales-based royalty. A Phase 1 study of drug candidate ABBV-0805 was initiated during the year. Research on follow-up compounds continues at BioArctic. The antibodies are focused on the Parkinson's program but also have potential as treatment for Lewy body dementia and multiple system atrophy.

OTHER CNS DISEASES

BioArctic strives to improve the treatment of diseases of the central nervous system. The antibody BAN2401 is in the pre-clinical phase as a potential treatment of cognitive impairment in conjunction with Down's syndrome and of traumatic brain injuries. In addition, the company is evaluating the possibility of developing both existing and new antibodies in other indications in the CNS field.

BLOOD-BRAIN BARRIER TECHNOLOGY

BioArctic and Uppsala University are collaborating on developing technology that facilitates the passage of antibodies across the blood-brain barrier. This barrier protects the brain from pathogens, but also makes it difficult for drugs to reach their targets in the brain. BioArctic's technology could facilitate transport into the brain.

DIAGNOSTIC TOOLS

The researchers at BioArctic are engaged in the development of new methods that could improve diagnostics and the evaluation of treatments for Alzheimer's disease and Parkinson's disease. BioArctic is pursuing a number of projects in partnership with external industrial and academic partners, including a study of biomarkers that could make it possible to diagnose Alzheimer's disease with a simple blood or spinal fluid sample and to monitor the results of the patients' treatment. In addition, the company is active in a project to improve brain imaging (PET) of Alzheimer's patients.

2013
Eisai initiated a global Phase 2 study with BAN2401.

2014
Clinical development of BAN2401 initiated in Europe.

2015
BioArctic and Eisai enter into a new license and research agreement concerning Alzheimer's disease.

2016
BioArctic and AbbVie enter into a research collaboration concerning Parkinson's disease.

2017
BioArctic is listed on Nasdaq Stockholm Mid Cap.

2018
BAN2401 shows positive results from its Phase 2b study

2019
- Eisai starts the confirmatory Phase 3 study of BAN2401 in patients with early Alzheimer's disease.
- AbbVie begins a Phase 1 study of ABBV-0805, one of the antibodies in the Parkinson's program.
- Alzheimer's Clinical Trials Consortium and Eisai announce that BAN2401 will be evaluated in clinical studies with the aim of preventing Alzheimer's disease.
- An interim analysis of the SC0806 Phase 1/2 study shows that the treatment has no convincing effect on patients with spinal cord injuries, and BioArctic decides to terminate the study and the project.
- The early stage proprietary project portfolio has been expanded with two new projects.

BIOARCTIC'S RESEARCH MAKES A DIFFERENCE

BioArctic's continues to break new ground in developing innovative treatments and improved diagnostics for patients with diseases of the central nervous system. To create the best possible conditions for achieving its goals, BioArctic partners with external research groups and global pharma companies that can provide the expertise and resources in clinical drug development, regulatory activities, distribution and marketing.

At the end of 2019, BioArctic's research portfolio consisted of a number of drug projects being developed to improve the treatment of Alzheimer's disease, Parkinson's disease and other disorders of the central nervous system. In addition, the company is pursuing two projects for improved diagnostics of CNS disorders and is developing a technology to facilitate improved uptake of drugs in the brain.

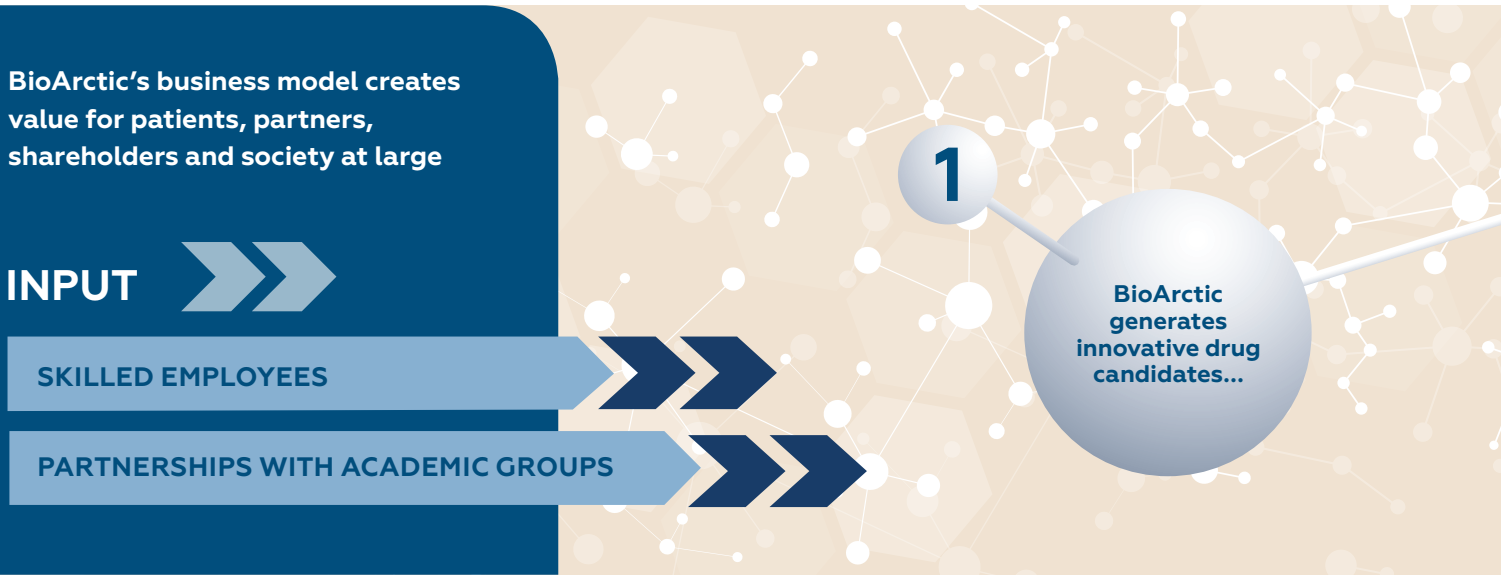
BioArctic's most advanced drug candidate, BAN2401, is in a confirmatory Phase 3 study in patients with early Alzheimer's disease.

Vision
Our research generates innovative medicines that improve life for patients with disorders of the central nervous system.

Mission
Together, we generate the medicines of the future for patients with disorders of the central nervous system.

Business concept
BioArctic is a Swedish biopharma company that develops new drugs based on groundbreaking research for patients with central nervous system disorders. For a global market, the aim is to generate transformative medicines that can stop or slow down the progression of diseases, principally Alzheimer's and Parkinson's diseases.

BioArctic's business model creates value for patients, partners, shareholders and society at large



BIOARCTIC'S PROJECT PORTFOLIO

	Project	Partner	Research	Preclinical	Phase 1	Phase 2	Phase 3
ALZHEIMER'S DISEASE	BAN2401	Eisai, Biogen[1]					
	BAN2401 back-up	Eisai					
	AD1801						
	AD1502						
	AD1503						
	AD2603						
PARKINSON'S DISEASE	ABBV-0805[2]	AbbVie					
	PD1601	AbbVie					
	PD1602	AbbVie					
OTHER CNS DISEASES	BAN2401 - Down's syndrome[3] - Traumatic brain injury						
	ND3014 - Neurodegeneration						
BLOOD-BRAIN BARRIER TECHNOLOGY	BBB technology						
DIAGNOSTIC TOOLS	Biomarkers and diagnostics – Alzheimer's disease						
	Biomarkers and diagnostics – Parkinson's disease	AbbVie					

1) Partner with Eisai regarding BAN2401 for treatment of Alzheimer's disease. Eisai, in partnership with Biogen regarding BAN2401 since 2014.
2) AbbVie inlicensed BAN0805 at the end of 2018 and is developing the antibody under the label ABBV-0805.
3) Down's syndrome with dementia and cognitive impairment.

2

...that are further developed by resource-rich global pharma companies...

3

...to result in drugs that can improve millions of patients' lives...

OUTPUT

Licensing revenue and own sales revenue create value for the shareholders and provide opportunities for investments in new research.

- **Better health for patients**
- **Better lives for their families**
- **Reduced burden on the health care system**
- **Socioeconomic benefits**

THE YEAR IN BRIEF

Currently available treatments for Alzheimer's and Parkinson's diseases can, in the best case, alleviate the symptoms but do not attack the underlying causes of the diseases. Each year that passes without more effective therapies means enormous continued suffering and tremendous costs to society. In 2019, significant advances were made in the development of BioArctic's unique drug candidates against these very diseases. This year's successes increase the hope that new drugs based on the company's groundbreaking research could improve the lives of millions of patients and their families.

ALZHEIMER'S DISEASE

- BioArctic's partner, Eisai, initiated the global confirmatory Phase 3 study (Clarity AD) with BAN2401 in patients with early Alzheimer's disease. According to Eisai, results from the study are expected in 2022.
- BioArctic received a milestone payment of MEUR 15 from Eisai as a result of the first patient being dosed with BAN2401 in the Phase 3 study. To date, BioArctic has received a total of MEUR 62 from Eisai. The total value of BioArctic's agreements with Eisai may amount to MEUR 221. In addition, there are sales-based royalties at a high single-digit percentage.
- Eisai announced that the launch of a Phase 3 program with BAN2401, AHEAD 3-45, is planned for 2020 in partnership with the Alzheimer's Clinical Trials Consortium (ACTC), a network for clinical trials in the US that strives to accelerate and broaden studies of treatments for Alzheimer's disease and Alzheimer's-related dementia. The Phase 3 program aims to prevent development of dementia at an early stage of the disease.
- At the Alzheimer's Association International Conference (AAIC®) in the US, additional data was presented from the Phase 2b study with BAN2401 that further confirms and emphasizes the unique properties and effects of the drug candidate on clinical function and biomarkers.
- At the Clinical Trials on Alzheimer's Disease Conference in the US, analyses of a subgroup of the patients participating in the open extension study following the Phase 2b study with BAN2401 were presented. These analyses showed that the decrease in amyloid in the brain as a result of the BAN2401 treatment remained after treatment was concluded, and the decrease in clinical degeneration compared with the placebo group remained for the two highest doses of BAN2401.
- BioArctic and Eisai initiated an expanded research collaboration in December 2019 for further study of the unique binding profile of drug candidate BAN2401.

PARKINSON'S DISEASE

- The US Food and Drug Administration approved an Investigational New Drug (IND) application for drug candidate ABBV-0805, which is a requirement for starting clinical trials in the US. The approval is a recognition of the high-quality scientific work performed by BioArctic and emphasizes the strength of the successful partnership between BioArctic and AbbVie.
- A clinical Phase 1 study with ABBV-0805 was started. The aim of the study is to document the safety and tolerability of the drug candidate. BioArctic's partner AbbVie is responsible for the clinical development of ABBV-0805.

COMPLETE SPINAL CORD INJURIES

- An interim analysis was conducted in a Phase 1/2 study with SC0806 for treatment of patients with complete spinal cord injuries. Unfortunately, the treatment did not result in the passage of any electrical impulses across the injured area, which is considered a prerequisite for patients to regain motor function. Based on the results, BioArctic decided to stop recruitment to the study and to not pursue the project further after the final patient has completed the study. This will not impact BioArctic's research and development of drugs for Alzheimer's, Parkinson's and other diseases of the central nervous system.

Prestigious awards for ground-breaking research

One of BioArctic's two co-founders, Professor Lars Lannfelt,received one of the world's most prestigious awards in Alzheimer's research – the Khalid Iqbal Lifetime Achievement Award in Alzheimer's Disease Research – during the 2019 Alzheimer's Association International Conference (AAIC®) in Los Angeles.

BioArctic recognized for its equality initiatives

For the second consecutive year, BioArctic was one of the finalists for the Allbright Prize, which is awarded to the Swedish company that made the most advances in the field of equality during the preceding year. Allbright is a politically independent, non-profit foundation working for equality and diversity among leading positions in Swedish business.

ALLBRIGHT

FINANCIAL OVERVIEW

	2019	2018
Net revenue, MSEK	281.8	714.0
Operating profit, MSEK	112.5	488.8
Profit for the year, MSEK	88.5	381.6
Cash flow from operating activities, MSEK	327.2	-200.1
Equity/asset ratio, %	82.4	73.1
Return on equity, %	8.9	46.1
Earnings per share, SEK	1.00	4.33
Equity per share, SEK	11.07	11.56
Cash flow from operating activities per share, SEK	3.72	-2.27
Share price at December 31, SEK	94.90	82.00
Cash and cash equivalents, net	1,085.5	917.3

NET REVENUE

MSEK 282

BioArctic's net revenue for 2019 consists primarily of a milestone payment from Eisai in conjunction with BAN2401 advancing into Phase 3 and research support from AbbVie as part of the joint Parkinson's project.

OPERATING PROFIT

MSEK 113

For the seventh consecutive year, BioArctic generated an operating profit.

POTENTIAL PARTNERSHIP PAYMENTS

billion SEK 7.6

The remaining payments in the collaboration projects with Eisai and AbbVie could total just over SEK 7.6 billion. In addition, projects that reach the market could generate considerable royalty payments to BioArctic based on product sales.

BLOOD-BRAIN BARRIER TECHNOLOGY

- BioArctic recruited Dr. Per-Ola Freskgård to strengthen the company's efforts around new technology for the passage of antibodies and other biological drugs across the blood-brain barrier. One of the world's leading experts in this area, Dr. Freskgård comes most recently from a role as director of research and Distinguished Scientist at Roche's central research facility in Basel, Switzerland, where he was responsible for research and implementation of new technologies for developing biological drugs against neurological diseases.

- BioArctic and two academic institutions at Uppsala University received a research grant totaling MSEK 10 from the Swedish innovation agency Vinnova to develop multispecific antibodies intended for immunotherapy against diseases of the central nervous system, primarily Alzheimer's disease and Parkinson's disease. The focus will be on developing multispecific antibodies that have a transporter to improve passage across the blood-brain barrier.

"Significant advances in our clinical projects enable new ventures in the CNS field"

An exceptionally successful 2019 capped off a decade that, on the whole, was a transformative one for BioArctic. Our skilled employees, in close collaboration with leading academic research groups and global pharma companies, made significant advances in the battle against neurodegenerative diseases. BAN2401, for early Alzheimer's disease, has progressed all the way into Phase 3. ABBV-0805, for Parkinson's disease, has progressed into Phase 1. The fact that both projects generated revenue totaling MSEK 282 reflects the advances we have made, and we are pleased to report an operating profit for the seventh year in a row.

The scientific advances BioArctic made during the year can be crucial for patients in the future. In the same way, these successes have been crucial for the company's continued development. The global confirmatory Phase 3 study of BAN2401 for early Alzheimer's disease started in May. If the study confirms the strong results from Phase 2b, BAN2401 has the potential to be one of the world's first disease-modifying drugs against Alzheimer's disease. This would be of great significance for patients, their families and society as a whole. Recruitment to the study is progressing well, and study centers have recently been opened in Sweden as well. According to Eisai, which is responsible for the study, results can be expected as early as 2022. In addition, BAN2401 will be evaluated in a clinical study aimed at preventing the development of dementia through treatment at a very early stage.

The strategic research collaboration with AbbVie continues to make very good progress. The first clinical study of ABBV-0805, one of several antibodies that is part of the collaboration intended to generate a disease-modifying treatment for Parkinson's disease, began in March 2019. The advances in the program mean we can now free up research resources from the collaboration for new internal projects in the field of neurodegenerative diseases.

The results from a Phase 1/2 study of our project for the treatment of complete spinal cord injury unfortunately showed that no electrical impulses passed through the injured

> "BioArctic is striving to create transformative treatments for neurodegenerative diseases. I am fully aware that this is highly ambitious, but with the advances of the last few years behind us I am convinced that we will succeed."
>
> Gunilla Osswald, CEO, BioArctic

area. Even though it was disheartening that the treatment did not have the effect the preclinical results previously indicated, we have contributed to increased knowledge of spinal cord injuries. We are now closing the study in a responsible manner, and we are ensuring that the valuable knowledge generated is disseminated throughout the international research community.

In parallel with drug development, we are conducting further research into developing biomarkers that can be crucial to early diagnosis and identifying the right treatment for the right patient. During the year, we also strengthened our research leadership with the recruitment of prominent scientist Per-Ola Freskgård who is now responsible for the development of BioArctic's blood-brain barrier technology. The potential for this research, which is being conducted in partnership with Uppsala University, reaches beyond our own drug projects. The goal is to improve the uptake of biological drugs in the central nervous system, which could revolutionize the treatment of diseases of the brain.

The work is now continuing with the aim of generating the treatments and diagnostics of the future for neurodegenerative diseases, with a continued focus on Alzheimer's disease and Parkinson's disease. 2020 will be marked by increased efforts in new drug projects, additional studies of the unique mechanism of action for BAN2401 and – naturally – the continued clinical development of BAN2401 and ABBV-0805.

BioArctic is striving to create transformative treatments for neurodegenerative diseases. I am fully aware that this is highly ambitious, but with the advances of the last few years behind us I am convinced that we will succeed.

Gunilla Osswald
CEO, BioArctic AB

CORE VALUES AND HUMAN RESOURCES

BioArctic's vision is to generate innovative medicines that improve life for patients with disorders of the central nervous system. Achieving this vision requires that BioArctic attract, recruit, develop and retain competent and creative employees. Clear core values and clear leadership are the basis of our performance over the short and long term. Together, we will build a strong corporate culture driven by science.

BioArctic's core values and leadership

BioArctic is a business driven by science, with extensive expertise in brain diseases whose development we are trying to slow down, and in the future stop. The company encourages its employees to take responsibility for and ownership of their work duties, act respectfully in their collaboration with both colleagues and external stakeholders, and feel strongly engaged in the company's future.

BioArctic's value-driven leadership

BioArctic's value-driven leadership consists of three different types. The first is *self-leadership*, which all employees practice. It is characterized by communication and collaboration. All BioArctic's managers make use of *individual-based leadership* – based on clear communication and situational coaching, and all managers convey the same message. *Project leadership* is the third type of leadership, which increases the potential for successful development of the projects that form the company's core.

BioArctic works continually with equality, diversity and the work environment. For BioArctic, stimulating and challenging work tasks, as well as a corporate culture that encourages healthy activities and a sound balance between work and leisure are important issues for sustainable employeeship.

Employees in continual development

BioArctic provides its employees with the opportunity to grow in their roles. This increases well-being and job satisfaction, and allows the company's employees to solve even greater challenges and create even greater value together. In addition, it facilitates recruitment of new and competent staff and makes it easier to retain employees.

In BioArctic's research organization, there is a clearly defined career ladder with several levels, including: Scientist, Senior Scientist and Principal Scientist. A specialist career is an attractive alternative to the traditional managerial career, and a way of encouraging continual skills development.

OUR CORE VALUES GUIDE US IN EVERYTHING WE DO

BIOARCTIC'S LEADERSHIP MODEL

1. Self-leadership for all employees
- Deliver with quality and on time
- Obtain the necessary knowledge
- Be solution-oriented
- Show loyalty to decisions made
- Act for sustainable employeeship
- Point out risks in the working environment

2. Individual-based leadership for managers
- Lead, delegate and provide projects with resources
- Create conditions for skills development
- Hold planning meetings and performance reviews
- Bear responsibility for setting salaries with immediate supervisor and HR
- Focus on labor rights, work environment and sustainable employeeship

3. Project leadership
- Ensure a clear project strategy
- Conduct the project in accordance with established plan
- Lead the team toward the goals
- Deliver on time with the right quality and within budget
- Identify and prevent risks
- Communicate clearly with management about risks and discrepancies

The exchange of knowledge among our employees is stimulated through such measures as annual internal research conferences in which the organisation exchanges ideas and experiences among the various project groups. BioArctic also arranges regular internal seminars to which external lecturers with specializations in the relevant fields are invited. Furthermore, the company encourages employees outside the research organisation to make use of both internal and external sources of inspiration to develop their skills and working methods.

A healthy and safe work environment

BioArctic conducts systematic occupational health and safety work so that all employees will feel safe, physically, psychologically and socially. Safety inspection tours are conducted on a continual basis in both the laboratories and the office environment. Pulse surveys are carried out every quarter to detect signals of potential stress and dissatisfaction at an early stage. The annual planning meetings and performance reviews involve discussions about core values, work environments and social interaction at the workplace.

A workplace marked by diversity and equality

People from different cultural and geographic backgrounds with varying levels of education and experience work at BioArctic. BioArctic is convinced that diversity will move the company forward, which is why it carries out active initiatives in this area. The company has a zero-tolerance attitude towards discrimination and harassment, and there is a whistle-blower function to ensure that no infringements occur in secret.

BioArctic provides a workplace that gives men and women the same career opportunities, which is confirmed by the company's relatively even gender distribution in both the management levels and among our employees in general.

STAFF FACTS[1)]

Gender distribution:
62/38%
women / men

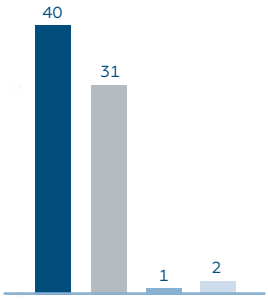
In the management group:
50/50%
women / men

Managers:
60/40%
women / men

In manager positions:

Women: 60 %
Men: 40 %

Level of education:



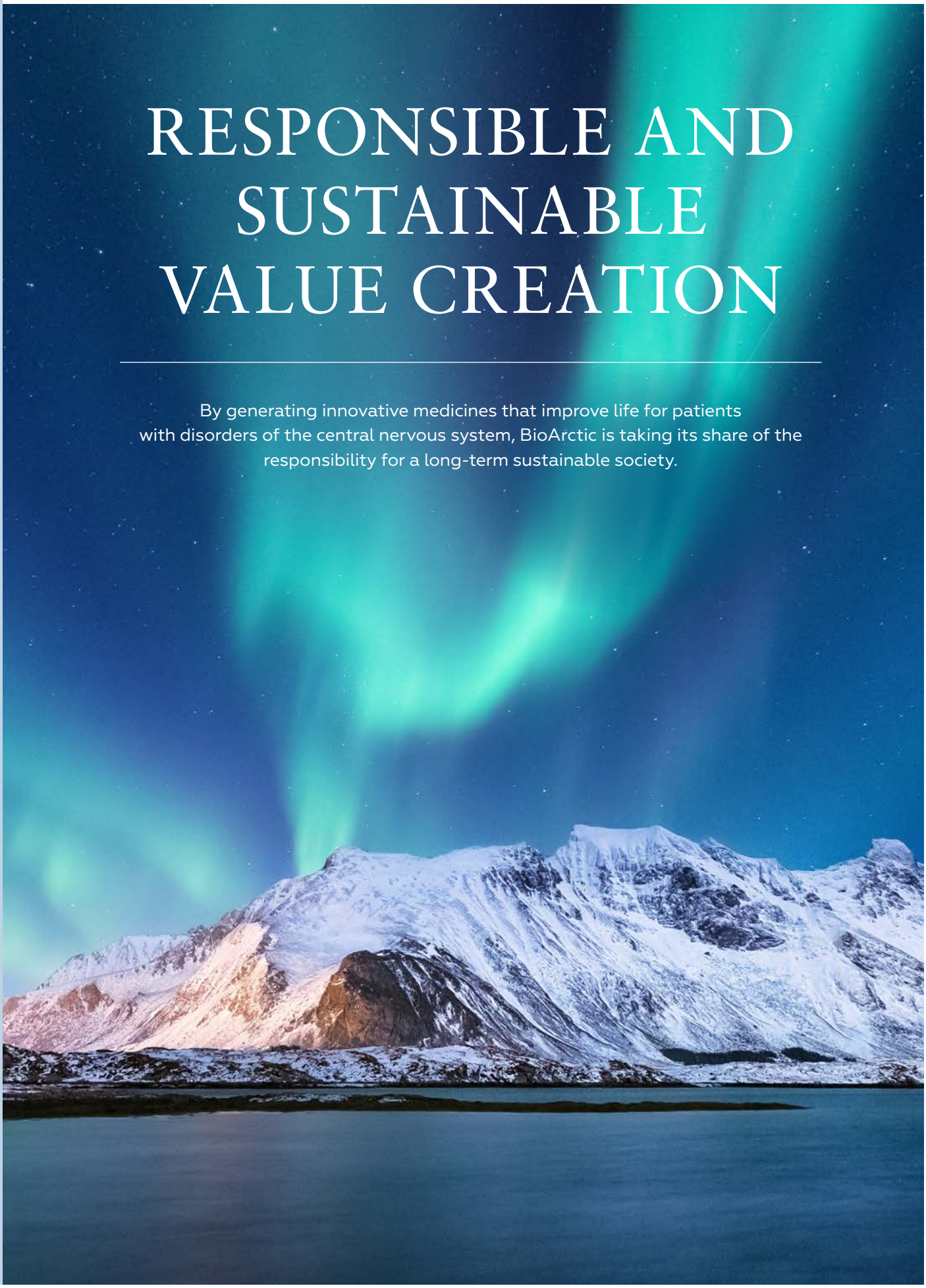
The total number of employees at BioArctic was 42 (31) at year end. Of these, approximately 85 per cent were employed in R&D.

- College/university degrees 40 of 42
- Doctorates 31 of 42
- Associate Professors 1 of 42
- Professors 2 of 42

1) All information is calculated on the total number of employees (42 at December 31, 2019). Consultants employed corresponding to 11 (10) full-time equivalents at year end are not included in the statistics above.

RESPONSIBLE AND SUSTAINABLE VALUE CREATION

By generating innovative medicines that improve life for patients with disorders of the central nervous system, BioArctic is taking its share of the responsibility for a long-term sustainable society.



BioArctic's operations to improve the treatment and diagnosis of neurodegenerative disorders requires responsible action in all areas. The company conducts its sustainability initiatives based on three central aspects: sustainable business, sustainable employeeship and sustainable resources.

Sustainability permeates all of the company's operations
BioArctic takes a holistic view of sustainability: the company should not only promote new drug treatments that increase global sustainability but also conduct its operations sustainably.

Committed employees
Employee contributions to increased sustainability require knowledge and commitment. That is why ethics, health and sustainability are continually discussed within the company, and new ideas and initiatives are encouraged.

Clear governance and follow-up
BioArctic has implemented a number of policy documents to formalize its work procedures and to facilitate proper follow-up as regards such issues as quality assurance, the work environment and procurement routines.

Structured health and safety work
BioArctic carries out continual, systematic health and safety work with regular investigations of the work environment, and follows up on actions that have been decided on.

Sustainable business

Promoting patient benefit, increased quality of life and a sustainable society as a company requires a stable business model. BioArctic's research focuses on diseases that affect large groups of people around the world, where the need for better therapies is significant. The project portfolio is well-balanced, and the partnerships with Eisai and AbbVie provide the significant financial and operational resources required to bring drug candidates all the way to market. BioArctic's solid cash position and responsible financial planning also bode well for good stability. Continued success could provide scope for new investments in research with the potential to create better health in even larger population groups.

Strong business ethics and transparency are crucial attributes in daily operations. The company imposes strict ethical, safety and environmental requirements on both its internal work and its suppliers and partners. BioArctic works to prevent all types of corruption.

BioArctic's research and development operations are strictly regulated and conducted in accordance with rigorous quality and ethical requirements, which are pre-requisites for sustainable value creation. The company has well-defined procedures for its quality assurance efforts, and is subject to thorough inspections from both government agencies and partners. Preclinical and clinical studies are conducted in accordance with applicable standards, guidelines and regulations, regardless of whether they are carried out under own management or by external partners.

Sustainable employeeship

For BioArctic, sustainable employeeship is an important tool for attracting, recruiting, developing and retaining individuals who can contribute to the company's value creation. Our employees' well-being and commitment are essential for generating innovative medicines that improve life for patients with disorders of the central nervous system. Our employees are also the ones who ensure that operations are conducted responsibly and sustainably.

BioArctic strives to provide a safe work environment with opportunities for development. The company works a great deal with employee health and regularly follows up on employees' opinions and requests. The company's managers have a key role to play in creating a good workplace, and also strive to promote a healthy balance between work and private life.

BioArctic is convinced that diversity will move the company forward, which is why it carries out active initiatives in this area. There is a zero-tolerance attitude towards discrimination and harassment, and a whistle-blower function to ensure that no infringements occur in secret. Equality in career opportunities for all employees, men and women, is affirmed by the equitable gender distribution in the management group, and among managers and employees in general.

Sustainable use of resources

BioArctic is proactive in its sustainability efforts, in its own operations as well as the company's research. BioArctic routinely strives to optimize resource consumption as regards both electricity consumption and materials, to reduce waste in its work and to safeguard recycling throughout. The company's future strategy is to continue developing and broadening its focus in the area.

BioArctic contracts with external suppliers for production of the drug candidates that are part of the company's project portfolio. The company's environmental commitments therefore require close long-term relationships with carefully selected suppliers and partners.

Environmental aspects constitute an important part of the basis for decision prior to the selection of suppliers in every procurement. All procured production complies with the pharma industry's quality system and Good Manufacturing Practice (GMP). As part of this, regular inspections are conducted in accordance with a predetermined plan.

ALZHEIMER'S DISEASE

BioArctic's antibody BAN2401 has the potential to be one of the world's first disease-modifying drugs against Alzheimer's disease. With over 30 million patients around the world currently lacking effective treatment, the need is enormous.

The World Health Organization estimates that over 30 million patients across the globe are living with Alzheimer's disease. Today, the diagnosis is difficult news for both patients and their families. The treatments currently available on the market only relieve the symptoms, and patients are thus forced to accept that they will gradually worsen. Large portions of the brain will inevitably break down: a brain affected by Alzheimer's disease weighs around 800 grams after death, compared to a healthy brain that weighs around 1,400 grams. For those afflicted, it means a drawn-out deterioration of memory, language, orientation, recognition and learning ability. For many, mental symptoms such as apathy, depression, paranoia and aggression also await.

The disease often begins gradually, in the form of mild cognitive impairment (MCI). The symptoms themselves are not sufficient to establish a diagnosis of Alzheimer's disease; further investigations are required such as diagnostic imaging of the brain or measurements of various substances – called biomarkers – in the spinal fluid to establish signs of increased deposits of amyloid beta in the brain.

Major gains from early treatment

The disease can be divided into six phases, the first three of which are regarded as the preliminary stages to Alzheimer's disease. In the first phase, patients experience pathological changes in the brain that indicate Alzheimer's disease (for example an increase in amyloid beta) but no clinical symptoms. In the second phase, patients with pathological changes additionally show a mild deterioration in conjunction with neuropsychological examinations, but their general function remains unchanged. In phase 3, mild functional impairments arise. In phases 4 through 6, the patient has been diagnosed with Alzheimer's disease and the disease is regarded as mild (phase 4), moderate (phase 5) or severe (phase 6). Even in the mild phase, memory problems can lead to marked disability, and the sufferer may find it difficult to communicate and to orient themselves. Over the last ten years, a number of treatment studies have focused on patients with symptoms ranging from MCI to the mild phase of the disease. Taken together, these patients are designated as having early Alzheimer's disease.

In the moderate phase, the patient has greater difficulty managing themselves and personal hygiene becomes difficult. Hallucinations, delusions and bouts of depression are common. In the final, severe phase of the disease, a large part of the brain has been affected. Speech is drastically affected; the person becomes passive and difficult to contact, and has problems with movement. Even the ability to swallow can be impaired. In this final phase, other complications such as pneumonia and urinary tract infections can emerge.

In addition to the suffering of the patient and their family, the extensive need for nursing care can entail major costs for society. In other words, the medical need is enormous, and the societal benefit would be significant, if a drug could be developed that can effectively slow the progress of the disease.

BioArctic's drug candidates attack the core of the disease

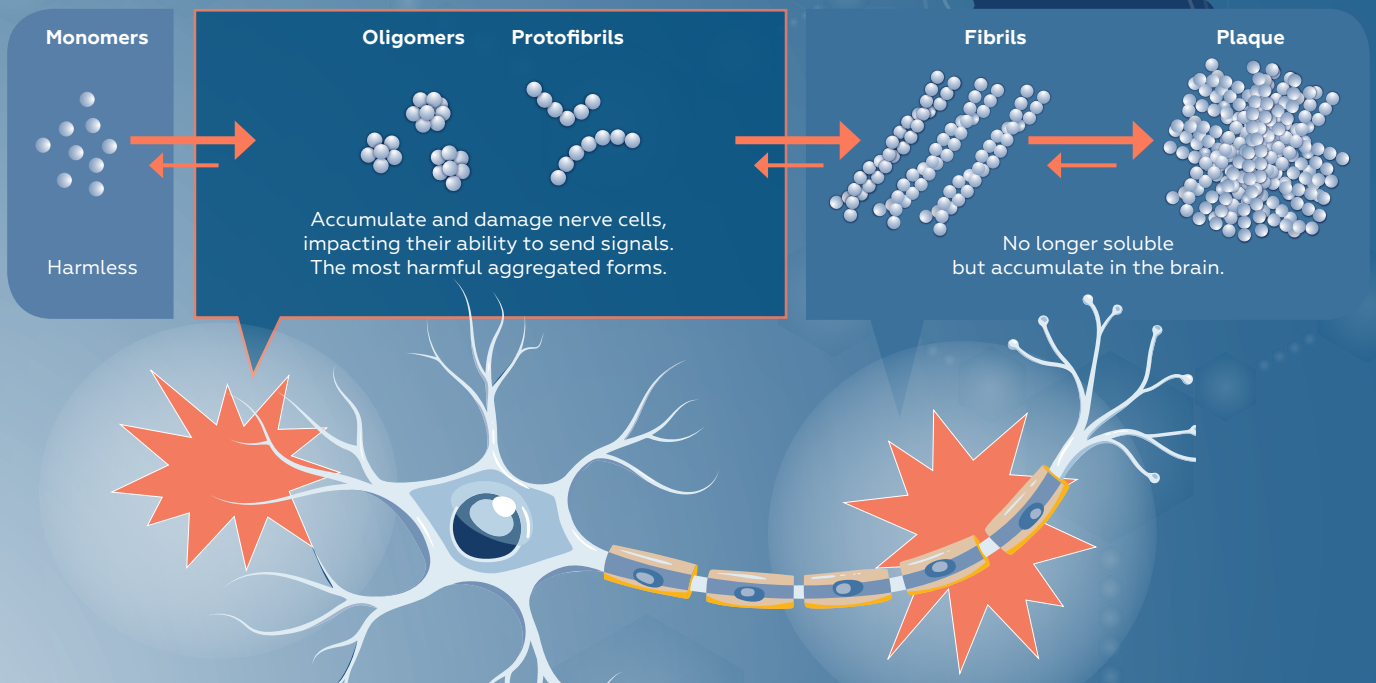
Since Alzheimer's disease gradually breaks down the nerve cells in the brain, administering treatments early is crucial. This is particularly important for the drugs under development, since they aim at slowing and modifying the course of the disease itself and not just alleviating the symptoms. The cause of Alzheimer's disease is believed to lie in the misfolding and clumping together of the amyloid beta protein in increasingly larger aggregations. When amyloid beta circulates in the blood and other bodily fluids as an individual molecule, or monomer, it is harmless. But in Alzheimer's disease, the monomers begin binding to each other and forming larger aggregations. These aggregations consist of increasing numbers of molecules, finally forming fibrils that accumulate in

Nerve cells broken down

In Alzheimer's disease, the nerve cells in the brain are gradually broken down. Memory, speech, orientation, recognition and learning ability deteriorate and the patient has more difficulty caring for themselves.

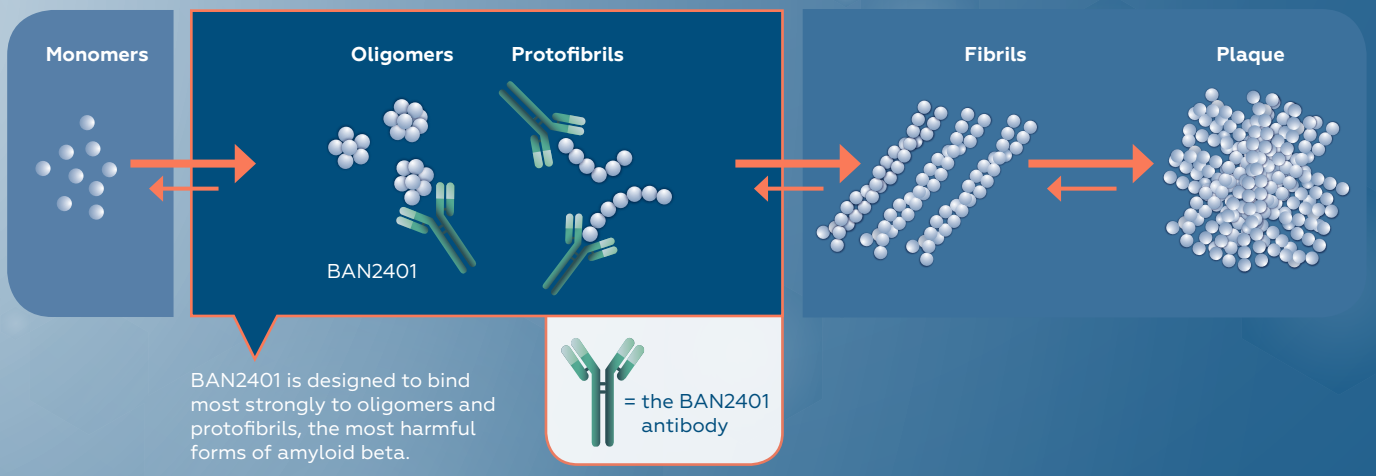
Accumulation of amyloid beta damages cells

The progress of the disease is due to misfolded amyloid beta protein, which begins to clump together and form increasingly larger aggregates: oligomers, protofibrils, fibrils and plaque.



BAN2401 removes oligomers and protofibrils, the harmful forms of amyloid beta.

The BAN2401 antibody binds to amyloid beta, helping the immune system identify the harmful aggregated forms and remove them.



brain tissue and form plaque.

The ground-breaking research results at the heart of BioArctic's drug candidates against Alzheimer's disease show that the forms of amyloid beta known as oligomers and protofibrils are the most harmful to nerve cells. These forms are still soluble.

BioArctic has six projects in progress for treatment of Alzheimer's disease, in which drug candidate BAN2401 has come the farthest.

BAN2401 and BAN2401 backup

BAN2401 is an antibody that binds selectively to oligomers and protofibrils, which permits the body's immune system to identify them and eliminate them. They thus disappear from nerve cells and the development of the disease is slowed. The high degree of selectivity against oligomers and protofibrils specifically – the forms that are most harmful – is unique to BAN2401. For example, the antibody binds 1,000 times more strongly to the harmful forms than to the harmless monomers. This may explain the efficacy and safety profile observed in the clinical studies to date.

Since 2007, BAN2401 has been outlicensed to Eisai, the global Japanese pharma company, for Alzheimer's disease. Another licensing agreement includes the BAN2401 backup antibody that BioArctic has developed. BioArctic holds the rights to BAN2401 and the BAN2401 backup for treatment of indications other than Alzheimer's disease.

In the spring of 2019, Eisai initiated a confirmatory Phase 3 study of BAN2401 for early Alzheimer's disease. The study, named Clarity AD/Study 301, is a global, placebo-controlled, double-blind, randomized parallel group study of 1,566 patients with early Alzheimer's disease and confirmed amyloid pathology in the brain. The group receiving the active compound is dosed intravenously with 10 mg/kg of BAN2401 every other week. The primary endpoint is the change from baseline in the Clinical Dementia Rating-Sum of Boxes (CDR-SB) cognition and function scale after 18 months of treatment. Secondary endpoints include other changes in the ADCOMS and ADAS-cog clinical scales and amyloid levels in the brain measured using amyloid PET scans. According to Eisai, results are expected in 2022.

The Phase 3 study follows a Phase 2b study of 856 patients, the results of which were presented in 2018. The Phase 2b study showed good tolerability and a clinically significant slowing effect on Alzheimer's disease after 18 months of treatment. The results also showed a drastic reduction of aggregted forms of amyloid beta in the brain and an effect on biomarkers indicating reduced nerve cell breakdown. All the results were dependent on the dosage level: the higher the dose and the longer the patients were treated, the more pronounced the effect – which indicates that the effects seen can be attributed to BAN2401. Analyses of a subgroup of the patients participating in the open label extension study following the Phase 2b study with BAN2401 were presented at the Clinical Trials on Alzheimer's Disease Conference in the US in December 2019. These studies showed that the decrease in amyloid in the brain that occurred in conjunction with the BAN2401 treatment remained after treatment was concluded. The decrease in clinical impairment compared with the placebo group after the conclusion of treatment with the two highest doses of BAN2401 also remained.

The future registration application Eisai plans to carry out will be based on the results of the completed Phase 2b study and the ongoing Phase 3 study.

Eisai announced during the year that they planned to launch a Phase 3 study with BAN2401 in 2020, in partnership with the Alzheimer's Clinical Trials Consortium (ACTC), a network for clinical trials in the US that strives to expand treatments for Alzheimer's disease. The prevention program aims to prevent development of clear clinical indications of the disease in the very early stages, thereby preventing dementia if possible. The preliminary stages of Alzheimer's disease that are the intended subject of study here are sometimes called preclinical Alzheimer's disease.

AD1502, AD1503, AD2603 and AD1801

BioArctic has four additional projects against Alzheimer's disease in its project portfolio, all of which are in the research phase. These projects focus on different targets than BAN2401, and all of them have the potential to be disease-modifying treatments for Alzheimer's disease. BioArctic fully owns the rights to all four projects.

The market for Alzheimer's disease

Over 50 million people around the globe suffer from some form of dementia. Approximately 60 percent of these cases are caused by Alzheimer's disease. If no treatment is developed that could slow or stop the course of the disease, the number of people with dementia-related diseases could triple by 2050[1]. The prevalence will especially increase in middle-income countries, primarily in Asia.

The care of Alzheimer's patients is extremely costly. In addition to drugs that relieve symptoms and medical

ABOUT EISAI

BioArctic's partner for BAN2401 is a research-intensive global Japanese pharma company with operations in more than 40 countries. The company has approximately 10,000 employees, and neurology is one of its two priority areas of focus. Eisai's discoveries and developments include Aricept (donepezil), the world's best-selling symptom relief treatment for mild and moderate Alzheimer's disease. Eisai and BioArctic collaborate on research under the licensing agreements concerning BAN2401 and BAN2401 backup.

Total contract value, SEK bn

The total contract value with Eisai is approximately MEUR 221 (SEK 2.3 billion). To date, BioArctic has received MEUR 62 (approximately SEK 0.7 billion). In addition, the market potential for BAN2401 indicates potentially substantial royalties.

Total contract value
Contract value received

treatments, there are major costs for nursing care, specially adapted housing and the like. Globally, the total cost of these diseases is estimated at USD 1 trillion a year[2]. New efficient and disease-modifying drugs for Alzheimer's disease would promote increased patient benefit and greater quality of life while entailing major savings. The estimates for the US population alone, for example, indicate that if there is a treatment by 2025 that slows the onset of Alzheimer's disease, the total cost of care would decrease immediately and drastically[3]. Even just five years later, in 2030, the cost could decrease by USD 83 billion a year. By 2050, the savings could be USD 367 billion a year compared with no disease-modifying treatment being available.

Disease-modifying treatments under development

The treatments available today only relieve symptoms and do not slow the underlying progression of the disease. There will be a major shift on the market when the first disease-modifying treatments are approved, even if they will likely be provided in combination with existing treatments for symptom relief. Given the high costs of caring for patients with Alzheimer's disease, the willingness to pay for treatments that delay and prevent development of the disease is expected to be high.

Aducanumab is the only disease-modifying drug candidate that is closer to the market than BAN2401. Aducanumab, which like BAN2401 is an antibody that works against amyloid beta, is being developed by Biogen and Eisai. The companies have announced that they plan to apply for market approval in 2020. BAN2401 differs from its competitors in that the antibody binds most strongly to harmful oligomers and protofibrils while other antibodies in clinical development primarily bind to monomers or fibrils. Fibrils are an aggregated form that is not as harmful in the progression of the disease. This could be an important explanation for the unique and convincing results that BAN2401 displayed in the comprehensive Phase 2b study.

Licensing agreements with Eisai can generate substantial revenue

In 2007, Eisai acquired the global rights to BAN2401 for treatment of Alzheimer's disease. In turn, Eisai partners with Biogen on the development and future commercialization of BAN2401. BioArctic incurs no costs for the clinical development of BAN2401. The agreements grant the right to a maximum of approximately MEUR 221 (SEK 2.3 billion) in remuneration, of which to date approximately MEUR 62 (over MSEK 500) has been received. If the Phase 3 study confirms the results shown in the Phase 2b study, BAN2401 could be one of the world's first disease-modifying drugs against Alzheimer's disease. The potential royalty payments alone for BAN2401 that arise in addition to the milestone payments described could generate substantial revenue for BioArctic.

BioArctic has retained rights to commercialize BAN2401 for treatment of Alzheimer's disease in the Nordic countries.

1) World Alzheimer Report – Alzheimer's Disease International, 2015
2) World Alzheimer Report – Alzheimer's Disease International, 2015
3) Alzheimer's Association 2015: Changing the Trajectory of Alzheimer's Disease: How a Treatment by 2025 Saves Lives and Dollars

LARS LANNFELT'S DOUBLE AWARD

In July 2019, Lars Lannfelt received one of the world's most prestigious awards in Alzheimer's research. The award, named the Khalid Iqbal Lifetime Achievement Award in Alzheimer's Disease Research, was presented during 2019 Alzheimer's Association International Conference (AAIC®) in Los Angeles. The award is presented to senior figures in the field who through their significant scientific contributions have demonstrated a lifelong commitment to advances in the battle against Alzheimer's disease and dementia. The justification for the international prize was Professor Lannfelt's discoveries of mutations, which contributed to the knowledge around the emergence of Alzheimer's disease, and his research that led to drug candidate BAN2401.

Lars Lannfelt also received the Swedish Alzheimer Foundation's 2019 Grand Research Prize for his years of research concerning the fundamental changes in the brain that trigger Alzheimer's disease, how they can be caused by genetic changes and how those changes can be diagnosed and targeted with new drugs.

PRIZE-WINNING FOUNDER SEEKS TO DISPEL THE MYSTERY AROUND ALZHEIMER'S DISEASE

Lars Lannfelt founded BioArctic together with Pär Gellerfors in 2003, and over the past year Lars's efforts in research concerning Alzheimer's disease were recognized both nationally and internationally. Lars Lannfelt reminds us that this is a young field of research in which a great deal is now falling into place.

Looking back on 2019, what has defined research into Alzheimer's disease?

"For BioArctic, the most important event was BAN2401 entering a Phase 3 study – a tremendous step. The field was otherwise characterized by a range of setbacks with several drug candidates that were withdrawn, which in turn raised a debate around the amyloid hypothesis. But for me, it has just as convincingly been proven that it is amyloid beta that triggers Alzheimer's disease, just as HIV causes AIDS. There are many other complex parts to the development of the disease that we do not yet understand, but there should no longer be any question as to whether amyloid beta triggers the disease process."

Why is it so challenging to research drugs against Alzheimer's disease specifically?

"It is important to remember that this is a young field of research. Cholesterol was discovered in 1890 and insulin in 1920. Amyloid beta was discovered in 1984 and the tau protein a few years later. From that perspective, it is not so strange that the field has suffered certain setbacks and that sometimes researchers do not completely agree. But today, I no longer think that Alzheimer's disease can be spoken of as a mystery. We have begun to obtain a strong understanding of the progress of the disease. Many challenges still remain, such as identifying the right patients in time and getting large molecules such as antibodies to pass through the blood-brain barrier to a greater degree, but major advances are now being made there as well and BioArctic's research plays an important role in these crucial areas."

BAN2401 showed uniquely strong results in a Phase 2b study and entered a confirmatory Phase 3 study during the year. What distinguishes it from other drug candidates?

"The idea behind BAN2401 is a simple one. Great ideas often are. Simply put, the idea is to attack whatever is harmful. Amyloid beta in its simplest form, the monomer, is harmless. When it starts to aggregate for some reason, then it becomes harmful. Our previous research made it clear that it is a specific soluble form of aggregation, protofibrils, that is most harmful to the nerve cells and causes the disease. That is why our focus early on was on developing an antibody that binds specifically to these harmful protofibrils, thus aiding the immune system in eliminating them. It is now a distinct attribute of BAN2401, and compared with other antibodies it has a unique and selective binding specifically to protofibrils. This enables both a better effect and fewer side effects, something we also saw clearly in the major Phase 2b study."

What can we expect over the next few years?

"Hopefully BAN2401 will be on the market, but other new drugs will also reach patients. Diagnostics are improving and we will be able to identify clear subgroups of Alzheimer's disease that can be managed and treated in different ways. There will also be developments around how drugs are administered – when they can be given subcutaneously instead of intravenously, it will make a huge difference for both medical care and patients. The developments in biomarkers, where we are moving towards simple blood samples instead of spinal fluid samples, will also improve the situation for patients and research."

PARKINSON'S DISEASE

The underlying cause of Parkinson's disease is similar to that of Alzheimer's disease – a protein that is normally harmless begins clumping together to form aggregates that destroy nerve cells in the brain. BioArctic's technology for developing selective antibodies against harmful aggregates has the potential to form one of the world's first disease-modifying drugs against Parkinson's disease.

Approximately six million people around the world suffer from Parkinson's disease[1]. The disease is normally detected in sixty-year-old patients, and approximately one percent of everyone over the age of 60 will be affected. In Parkinson's disease, the patient gradually loses the ability to govern their movements. It could begin with mild tremors in one hand. Stiffness, slowed movement, and impaired mobility emerge in pace with the spread of the disease and the tremors worsen. Other symptoms including difficulty sleeping, constipation, depression, cognitive impairment and hallucinations frequently occur in various stages of the disease. Normally, the disease develops over the course of 15 to 20 years. In its later stages, it is difficult to work and live a normal, independent life.

Parkinson's disease destroys the nerve cells that produce the neurotransmitter dopamine. Without dopamine, the nerve cells can no longer transmit the correct signals and mobility is impaired. Current treatments for Parkinson's disease merely alleviate the symptoms by increasing the levels of dopamine in the brain. The effects of these treatments are positive in the beginning, but troublesome side effects in the form of involuntary movements emerge after roughly five to seven years and the favorable effects of the treatment become more limited. Other cell types in the brain also break down, such as those that produce the neurotransmitter acetylcholine. There is a great need for developing drugs that slow or stop the underlying progress of the disease.

Alpha-synuclein lies behind the disease

Accumulations of the protein alpha-synuclein can be seen in the nerve cells of patients with Parkinson's disease. In a healthy brain, alpha-synuclein is found in the synapses of nerve cells, where it regulates which neurotransmitters are transferred between nerve cells. In a brain with Parkinson's disease, the alpha-synuclein begins to clump together, forming increasingly larger aggregates – just as the protein amyloid beta does in Alzheimer's disease. In Alzheimer's disease, plaque ultimately forms around the nerve cells; in Parkinson's disease, the final product is instead a formation known as Lewy bodies – insoluble clumps of alpha-synuclein in the nerve cells.

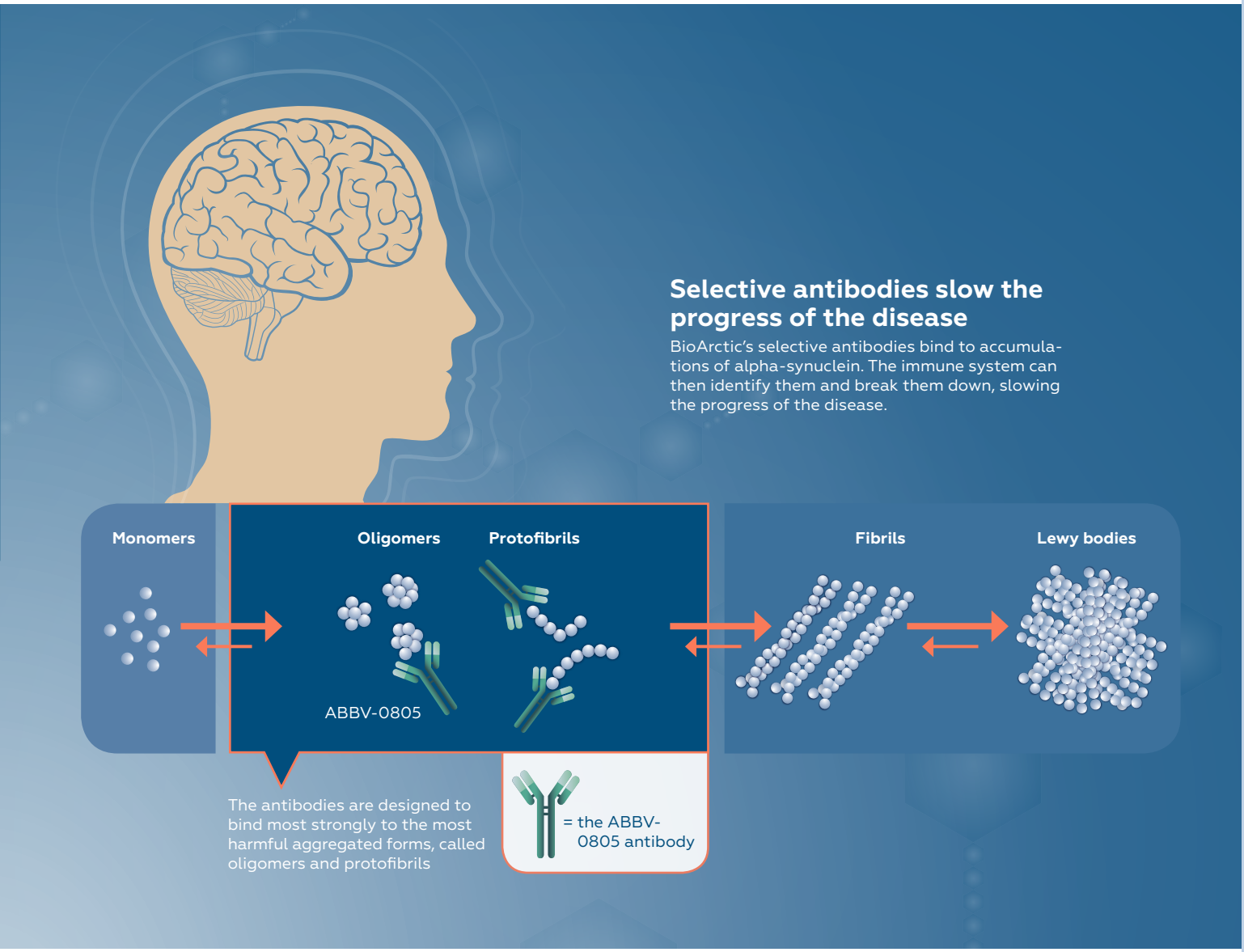
Even though Lewy bodies are the most obvious finding in a brain affected by Parkinson's disease, research overwhelmingly shows that – like Alzheimer's disease – the soluble aggregated forms (oligomers and protofibrils) are the most harmful to the nerve cells. Moreover, oligomers and protofibrils can come loose from the nerve cells and move to neighboring cells, which could explain how the disease spreads in the brain.

BioArctic's antibodies have the potential to slow the progress of the disease

Based on a research collaboration with Uppsala University, BioArctic has developed antibodies that bind selectively to oligomers and protofibrils of alpha-synuclein. The antibodies make it easier for the immune system to detect and eliminate the harmful accumulations of alpha-synuclein and thus slow the progress of the disease. Preclinical research in animal models for Parkinson's disease show that antibody treatment leads to decreased levels of oligomers, protofibrils and alpha-synuclein in the central nervous system, milder motor symptoms and a doubling of life expectancy after the treatment has been administered.

In November 2018, the global biopharma company AbbVie

1) Dorsey and Bloem, JAMA Neurology 2018;75:9–10



inlicensed the entire BioArctic portfolio of antibodies against alpha-synuclein, at the same time undertaking to pursue and finance its clinical development. The portfolio comprises three projects: ABBV-0805, PD1601 and PD1602.

Of these, ABBV-0805 has come the farthest. In the spring of 2019, AbbVie started the first clinical Phase 1 study of ABBV-0805 for Parkinson's disease in the US. The early studies in healthy subjects and patients with Parkinson's disease are primarily investigating safety and tolerability. The goal is to produce a disease-modifying treatment for Parkinson's disease. Under commission from AbbVie, BioArctic is continuing research on the two projects in the preclinical phase – PD1601 and PD1602 – and biomarkers for alpha-synuclein are also being developed as part of the partnership.

The market for Parkinson's disease

Parkinson's disease is the world's second most common neurodegenerative disease after Alzheimer's disease, and the number of patients is expected to increase from the current roughly 6 million to nearly 13 million in 2040[2]. With a relatively young patient group in which most are still of working age when they fall ill, the costs to society are great. In addition to the direct costs for care, there is an indirect cost to society as a result of the patient's loss of productivity. According to an estimate that applies to the US alone, the total costs are estimated at USD 52 billion a year. Of these, approximately half are direct costs for care and half indirect costs such as loss of work, early retirement and costs for family members caring for the patient[3].

Since current pharmaceuticals only relieve the symptoms, there is a great potential for a disease-modifying drug that can slow the development of the disease in a meaningful way.

ABBV-0805 has the potential to be one of the first disease-modifying drugs against Parkinson's disease. There are other drug candidates in clinical development that – like ABBV-0805 – eliminate alpha-synuclein, for example,

2) Dorsey and Bloem, JAMA Neurology 2018;75:9–10
3) Economic Burden and Future Impact of Parkinson's Disease, The Lewin Group and Michael J. Fox Foundation

prasinezumab from Prothena/Roche and cinpanemab from Biogen. If any of these drugs or ABBV-0805 reach the market, there will be a tremendous shift facing the care of Parkinson's disease. Future treatments will likely consist of combinations of various therapies, both disease-modifying and symptom-relieving. The main advantage of BioArctic's antibodies is that they are extremely selective, and bind most strongly to the harmful oligomers and protofibrils of alpha-synuclein while binding very weakly to the normal form. These antibodies thus have potential to show good effect with limited side effects.

Licensing agreements with AbbVie worth over SEK 7 billion

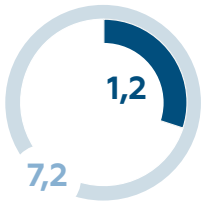
In 2016, BioArctic and AbbVie entered into a strategic research collaboration concerning the development of antibodies against alpha-synuclein. The agreement contained an option for AbbVie to inlicense the entire portfolio at a later date. At the end of 2018, AbbVie exercised this option, thereby taking over the costs of clinical development while obtaining the global commercialization and marketing rights. In total, the licensing agreement could bring MUSD 755 (over SEK 7 billion) in remuneration, of which BioArctic has received approximately MUSD 130 (SEK 1.2 billion) to date. In addition, BioArctic has the right to royalties on future sales.

There are also other diseases in which accumulations of alpha-synuclein is believed to be the cause, such as Lewy body dementia and multiple system atrophy. There is a similar potential here for antibodies against alpha-synuclein to slow the progress of the disease. The agreement with AbbVie includes all potential diseases in which alpha-synuclein is involved.

ABOUT ABBVIE

AbbVie is a global biopharma company with approximately 30,000 employees, and is involved in research and development in such fields as immunology, neurology and oncology. AbbVie owns pharmaceuticals such as Humira, which has been approved for ten indications and is the world's top-selling drug (USD 10 billion in annual sales over the last few years). AbbVie also markets Duopa, a drug that alleviates the symptoms of severe Parkinson's disease.

Total contract value, SEK bn



The total contract value for the portfolio of antibodies against alpha-synuclein is just over SEK 7 billion (MUSD 755), of which BioArctic has received approximately MUSD 130 (SEK 1.2 billion) to date. In addition, there are possibilities for substantial royalties.

Total contract value
Contract value received

"ABBV-0805 has the potential to be one of the first disease-modifying drugs against Parkinson's disease."

Johanna Fälting, Vice President Research, BioArctic

DELIVERY OF DRUGS TO THE BRAIN

With the recruitment of internationally known researcher Per-Ola Freskgård and a new research grant of MSEK 10 from Vinnova, BioArctic put its venture in new blood-brain barrier technology into a higher gear. The goal is increase the concentration of biological drugs in the central nervous system, thus creating possibilities for use across a broad front.

Why is the blood-brain barrier important to the development of drugs for the central nervous system?

"The blood-brain barrier normally protects the central nervous system from foreign substances, but it also makes it difficult to get drugs into the brain. That is why historically, drugs for treating various brain diseases have been based on small molecules that can get through the blood-brain barrier with some effort – if they are specially designed. But over the last twenty to thirty years, drug development in general has moved more toward the body's own molecules. In fields such as cancer, diabetes and rheumatic diseases, antibodies and other biological compounds have proved to be highly effective. One major challenge, however, is that these complex biological drug molecules are entirely too large to effectively pass through the blood-brain barrier. This has slowed development and created a need to develop technologies that facilitate active transport over the blood-brain barrier."

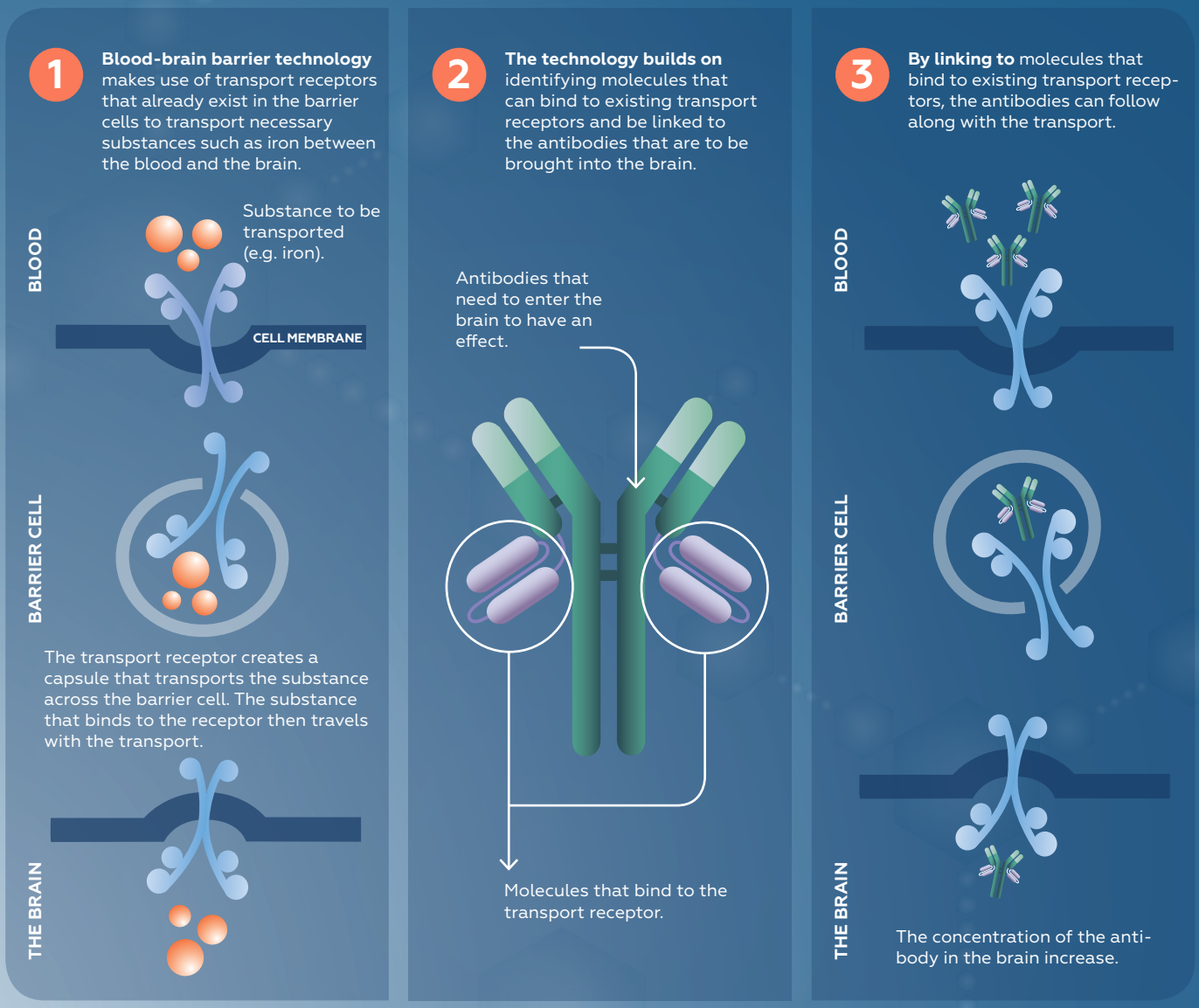
What is a technology platform, actually?

"What we are doing is developing various biological transporters that get through the blood-brain barrier using existing processes (connections) in the brain to transport vital substances such as iron between the blood and the brain. These biological transporters can then be connected to various biological drugs – antibodies, for example – to get them into the brain, and thus increase the concentration and the effect. The transporters can thus be regarded as a technology platform, since the technology can be used for many different drug candidates."

You are already developing antibodies for diseases in the central nervous system that are in the clinical phase. Are they not getting to the brain?

"They are, but in relatively low concentrations. They are still having an effect because high doses are being used, and

> "A technology platform that could revolutionize treatments in the central nervous system"
>
> Per-Ola Freskgård, Distinguished Scientist, BioArctic



the amount of drugs getting into the brain also remains there and is thus able to have an effect. But for other diseases, the concentration in the central nervous system needs to be increased to have a therapeutic effect."

Is this platform only for improving BioArctic's drug candidates, or can it be used by other developers in other contexts as well?

"Alongside the development of internal products, the technology could very well be outlicensed to other companies to facilitate their development work. But each case needs to be examined individually to see which ones generate the most value."

How does future development look?

"We will continue our successful collaboration with Uppsala University. In addition to continuing with our basic research, over the long term we will test whether the technologies work in patients. We will then choose to link a biological drug that can easily be measured with biomarkers to see whether the concentration increases within the central nervous system. If we can show that this works in patients, it would create an entirely new area of research that could revolutionize the treatment of brain diseases with these types of drugs."

BLOOD-BRAIN BARRIER TECHNOLOGY FACTS

The blood-brain barrier controls the exchange of substances between the blood stream and the brain. The barrier protects the brain from toxins and other pathogens, but also makes the delivery of therapeutic agents to the brain more difficult. In collaboration with Uppsala University, BioArctic is developing technologies that facilitate the passage of antibodies across the blood-brain barrier.

SIGHTS SET ON THE NEXT BIG BREAKTHROUGH

With years of experience in translational drug development, Johanna Fälting is leading development of new antibodies against Alzheimer's disease and Parkinson's disease. Biomarkers, diagnostics and the blood-brain barrier technology platform are also receiving more attention in pace with the development in the field.

What are you focusing on in the lab just now?

"We are focusing on several different aspects. On the one hand, we are working on identifying and developing new antibodies against Alzheimer's disease and Parkinson's disease. In parallel, we are working further with our technology platform for biomarkers and our technology platform for better passage of antibodies across the blood-brain barrier. At the same time, we are conducting the additional preclinical work required for our drug candidates in the clinical phase."

What new antibodies are you researching?

"Primarily four new projects against Alzheimer's disease, all of which have new and unique mechanisms different from one another. We also have exciting projects in neurodegeneration – the breakdown of the nervous system in the brain."

What is the purpose of your biomarker research?

"Identifying relevant biomarkers is crucial for several reasons. One of them, of course, is identifying biomarkers that can be used to diagnose Alzheimer's disease. Since administering them in time will be crucial for future treatments, there is a strong drive for all the players in the field to find the right diagnostic markers. With better biomarkers, it would also be easier to identify the right patients for the clinical studies. But biomarkers are not needed just for diagnostics. We also need to develop biomarkers in parallel with our drug projects in order to monitor what effects our drug candidates have. Showing a clinical effect is not enough for a new drug to be approved as a disease-modifying treatment. We also need to show that the drug has had an effect on the underlying disease, and for that we need biomarkers."

How is biomarker research developing?

"There is a great deal happening in the field, which will have a tremendous effect going forward. Success in identifying biomarkers that can be measured in the blood would be the most important. Our collaboration with Gothenburg University is of importance. The results from that collaboration could change a great deal in both research and daily clinical work. The biomarkers we are looking at today often require spinal fluid or advanced diagnostic imaging, which is costly for both medical care and research and cumbersome for the patient. If instead we can be satisfied with a simple blood test, we will have gained much."

What role do you play in the clinical development of antibodies against Parkinson's and Alzheimer's disease in collaboration with your partners?

"We often continue with a certain amount of preclinical

Along with BioArctic's 34 other researchers, Vice President Research Johanna Fälting is focusing on the next generation of antibodies. A large part of the research takes place in collaborations with Uppsala and Gothenburg Universities, as well as with the company's partners Eisai and AbbVie.

research even when the drug program has entered the clinical phase. We always want to learn more about the diseases we are working with. New discoveries sometimes emerge in clinical research that we need to understand the background to, and our researchers study those. In pace with the program's development, gaining an increased understanding of how our drug candidates differ from our competitors' is a good thing, so that is also part of our research."

Many companies are developing drugs in the central nervous system. What is remarkable about BioArctic's research?

"Everything we do is based on the clinical view of the diseases. The explanation is that the company was founded by researchers and physicians who got their original ideas through their clinical work. Classical drug research then steps in, but all the target proteins we are looking at have proved relevant in the clinical view. At BioArctic, we also have the advantage of being a relatively small company with extensive experience of the entire pharmaceuticals chain from idea to market. This provides efficiency in the organization and gives us self-confidence in relation to our partners. We know what they need and also earn a lot of recognition for reliability in our deliveries. There are other, softer aspects as well such as being good at collaborating, which characterizes our work internally as well as our interactions with various universities and partners. We believe in shared goals, clarity and trying to creating a "happy-happy" situation in which everyone gets the most out of the collaboration."

OTHER CNS DISEASES

In addition to antibodies against Alzheimer's disease and Parkinson's disease, BioArctic is working to develop new treatments for a number of other diseases in the central nervous system. The antibody BAN2401 is in the preclinical phase as a potential treatment of cognitive impairment and dementia in conjunction with Down's syndrome and of traumatic brain injuries. The area of application for drug candidate ABBV-0805 could be expanded to include diseases such as Lewy body dementia and multiple system atrophy. In parallel, the company is evaluating the possibility of developing both existing and new antibodies for other indications.

DIAGNOSTIC TOOLS

One of BioArctic's five areas of operations is the development of new tools that can improve diagnostics and the evaluation of treatments for Alzheimer's disease and Parkinson's disease. BioArctic is pursuing a number of projects in partnership with external industrial and academic partners, including a study of biomarkers that could make it possible to diagnose Alzheimer's disease with a simple blood sample and to monitor the results of the patients' treatment. The company is also conducting a project to improve imaging by PET of the brains of Alzheimer's patients.

ACTIVE PATENT STRATEGY

Strong patents are a prerequisite for successfully commercializing BioArctic's scientific advances. By pursuing an active patent strategy, the company has established solid intellectual property protection for its drug candidates in all its major drug markets including the US, the EU, Japan and China. The patent portfolio encompasses 12 patent families with more than 180 patents granted and over 70 patent applications pending.

Patent protection for BioArctic's most advanced drug candidate, BAN2401, is valid until 2032 including patent term extensions. Drug candidate ABBV-0805 has patent protection through 2036 including patent term extensions. Through pending patent applications, BioArctic has also laid the foundation for protecting its technology for transporting pharmaceutical substances across the blood-brain barrier.

Moreover, BioArctic has accumulated extensive knowledge of how to produce antibodies with selective binding to misfolded protein forms (oligomers and protofibrils) that are believed to play an important role in Alzheimer's disease.

In addition to BAN2401 and ABBV-0805 being protected under granted patents, these drug candidates will also be protected upon market approval by data and market exclusivity for 12 years in the US and 10 to 11 years in Europe.

BioArctic's most important published patent families as of December 31, 2019 are shown in the table below.

Patent family	Area	Status and market	Protection to
AD I	Alzheimer's disease – concept 1	**Granted:** USA, Canada, Japan, Australia	July 2021
AD II	Alzheimer's disease – concept 2	**Granted:** USA, Europe[1], Canada, Australia	June 2025
AD III	Alzheimer's disease – compound 1 Specific protection for BAN2401	**Granted:** USA, Canada, Europe, Japan, China as well as other countries	March 2027/2032[2]
AD IV	Alzheimer's disease – compound 2 Specific protection for BAN2401 back-up	**Granted:** US **Pending:** Europe, Japan, China as well as other countries	July 2035/2040[2]
PD V	Parkinson's disease – concept	**Granted:** USA, Europe, Japan	July 2029
PD VII	Parkinson's disease – compound Specific protection for ABBV-0805	**Granted:** USA, Europe, Japan, China, Australia as well as other countries	March 2031/2036[2]

1) The concept patent in Europe was revoked after opposition, but the decision was appealed by BioArctic. The appeal was filed in 2017 at the European Patent Office (EPO) Boards of Appeal, but was rejected in January 2020.
2) Assuming a five-year patent extension is granted where available.

BIOARCTIC AS AN INVESTMENT

Tremendous need for disease-modifying treatments for Alzheimer's disease and Parkinson's disease

At present, there are no effective treatments that can stop or delay the progression of Alzheimer's or Parkinson's diseases. Current drugs can only alleviate the symptoms in patients over the short term.

Disease-modifying treatments would therefore create significant value for patients, their families, care providers and society as a whole. This means significant commercial opportunities for new and more effective drugs.

World-leading research based on a groundbreaking scientific discovery

BioArctic was founded based on the discovery by Professor Lars Lannfelt and his colleagues that harmful aggregations of proteins play a key role in the development of neurodegenerative diseases. This makes up the platform for BioArctic's development of completely new treatments against such disorders as Alzheimer's disease and Parkinson's disease – work that is being carried out in close collaboration with leading academic research groups.

BioArctic's advances attract global pharma companies

BioArctic's groundbreaking research, patented technology and capacity for generating disease-modifying drug candidates has facilitated broad collaboration with global pharma companies Eisai and AbbVie. The total potential value of the existing collaborations is over SEK 9.5 billion plus royalties, of which BioArctic has received approximately SEK 1.9 billion.

Phase 3 study in progress with a drug candidate against early Alzheimer's disease

BioArctic's most advanced drug candidate for early Alzheimer's disease, BAN2401, has shown promising results in a major Phase 2b study. A confirmatory Phase 3 study is now in progress and the company's partner, Eisai, expects results from the study to be available in 2022.

Broad program against Parkinson's disease with a drug candidate in Phase 1

AbbVie has inlicensed BioArctic's broad portfolio of alpha-synuclein antibodies with the potential to revolutionize the treatment of disorders such as Parkinson's disease. One of these antibodies is currently being evaluated in a Phase 1 study.

A project portfolio standing on several pillars

In addition to the projects in Alzheimer's disease and Parkinson's disease, BioArctic is developing a unique technology to improve transport of biological drugs into the brain. BioArctic is also involved in improving diagnoses of neurodegenerative diseases through improved diagnostic imaging and new biomarkers.

A strong financial position

Significant revenue from the current collaboration agreements brought BioArctic's cash balances to SEK 1,113 billion at the end of 2019. The company's strong financial position creates a high degree of flexibility and facilitates robust efforts in existing and new projects.

THE SHARE AND SHAREHOLDERS

BioArctic's performance on the stock market has been favorable since its listing, and its market value at year-end totaled SEK 8.4 billion. The share performed positively in 2019, rising 16 percent while the number of shareholders increased 15 percent.

Trading and market value

The BioArctic share is traded on Nasdaq Stockholm's Mid Cap list under the symbol BIOA B. During the year, approximately 40.4 million B shares were traded at an aggregate value of approximately SEK 3.4 billion. The average daily volume during the year totaled MSEK 13.8. The majority – approximately 95 percent – of volume in the share took place on Nasdaq Stockholm. In addition to trading on the Stockholm stock market, approximately 3 percent of trading took place on the Cboe CXE marketplace and approximately 1 percent on Cboe BXE. The market value at year-end was SEK 8.4 billion.

Share performance in 2019

The share was listed on October 12, 2017 at an introductory price of SEK 24 per B share, corresponding to a market value of approximately SEK 2.1 billion. During the year, the share price trended positively, rising 16 percent to close out the year at a share price of SEK 94.90. The highest price paid – SEK 118.60 – was noted on March 20, 2019, and the lowest price paid – SEK 59.05 – was noted on October 3, 2019.

Share capital

The share capital at year-end totaled SEK 1,761,200 spread over 88,059,985 shares, of which 14,399,996 are unlisted A shares and 73,659,989 are listed B shares. The A share has ten votes per share while the B share has one vote per share. The quotient value per share is SEK 0.02.

Ownership structure

At year-end, BioArctic had 9,435 shareholders (8,221). Shareholding in Sweden totaled 94.4 percent of the capital and 97.7 percent of the votes. Of the total foreign ownership of 4.8 percent of the capital, shareholders in the US represented 2.0 percent, shareholders in Norway 1.4 percent and shareholders in the UK 0.5 percent. The Swedish ownership is dominated by private persons and companies with 70.4 percent of the capital. Funds owned 10.4 percent while insurance and pension companies owned 10.7 percent. BioArctic's ten largest shareholders owned 80.6 percent of the capital and 92.2 percent of the votes. The Board members in the company owned a total of 52,567,724 A shares and B shares in BioArctic, while company management owned 176,533 B shares (excluding those owned by Lars Lannfelt, which are counted among Board member shares). In total, the holdings of the Board and management correspond to 59.9 percent of shares outstanding. BioArctic's A shares are owned by Demban AB and Ackelsta AB, which are in turn owned by the founders of BioArctic.

The ten largest shareholders as of December 31, 2019

Owner	Number of A shares (10 votes per share)	Number of B shares (1 vote per share)	Share of capital (%)	Share of votes (%)
Demban AB (Lars Lannfelt)	8,639,998	22,723,707	35.6	50.1
Ackelsta AB (Pär Gellerfors)	5,759,998	15,150,036	23.7	33.4
The Fourth Swedish National Pension Fund	-	3,871,684	4.4	1.8
The Third Swedish National Pension Fund	-	3,810,032	4.3	1.7
Unionen	-	2,562,723	2.9	1.2
Handelsbanken Fonder	-	2,415,000	2.7	1.1
Norron Fonder	-	1,999,363	2.3	0.9
Investment AB Öresund	-	1,550,000	1.8	0.7
The Second Swedish National Pension Fund	-	1,441,666	1.6	0.7
Wellington Management	-	1,116,950	1.3	0.5
Total	**14,399,996**	**56,641,161**	**80.6**	**92.2**

Dividends and dividend policy

BioArctic currently has no drugs being sold in the market, which means that the company's revenue and earnings are primarily based on revenue of a non-recurring character in accordance with the research and licensing agreements the company has signed. BioArctic will continue to focus on further developing and expanding the company's project portfolio, which means that available funds and accrued earnings will primarily be reinvested in operations for future investment and expansion. It is the intent of the Board not to propose any dividend to shareholders until the company generates long-term sustainable profitability. Any future dividends and the size thereof will be established based on the company's long-term growth, earnings trends and capital requirements, taking into account current goals and strategies. To the extent a dividend is proposed, it will be well-judged, taking into account the goal, scope and risks of the operations.

For the 2020 AGM, the Board has proposed that no dividend be paid out for the 2019 financial year.

Share-based incentive programs

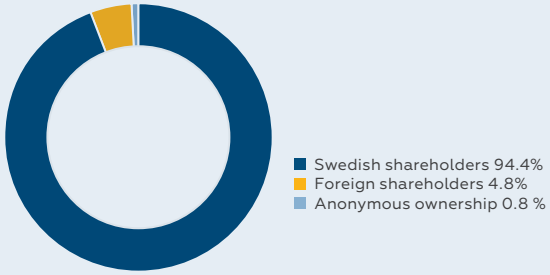
BioArctic has a long-term incentive program (the 2019/2028 program) in the form of a warrant program intended for the company's senior executives, researchers and other staff. The purpose of the incentive program is to encourage broad share ownership among BioArctic's employees, facilitate recruitment, retain skilled employees and increase employee motivation and fulfillment of targets. The program, which is intended for 41 employees in total, includes a total of 1,000,000 warrants. Of these, 480,000 warrants have been subscribed. If the maximum number (i.e. 1,000,000 warrants) are utilized, the dilution will total 1.1 percent of the share capital and 0.5 percent of the voting rights in the company.

In addition to the long-term incentive program described above, BioArctic's two primary owners, Demban AB and Ackelsta AB (independent of the company) – issued call options to a total of twelve Board members and senior executives in the company, including the CEO, in 2017. The total number of purchase options corresponds to 366,795 of the main owners' B shares in BioArctic, of which 207,405 have been exercised.

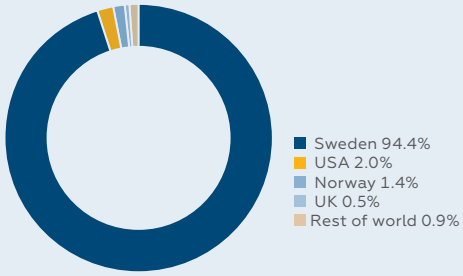
Financial calendar

Activity	Date
Interim Report January – March	April 22, 2020
2020 Annual General Meeting	May 7, 2020
Interim Report January – June	July 10, 2020
Interim Report January – September	October 14, 2020
Year-end Report January – December	February 4, 2021

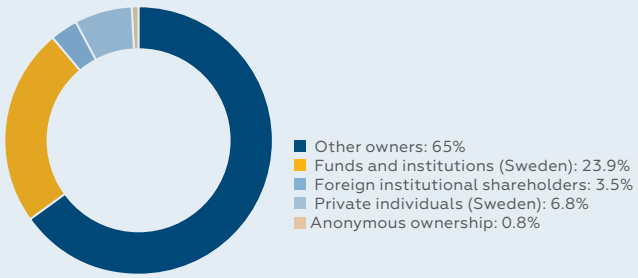
Distribution of Swedish and foreign shareholding at December 31, 2019



Distribution of capital by geography at December 31, 2019



Distribution of capital by ownership category at December 31, 2019

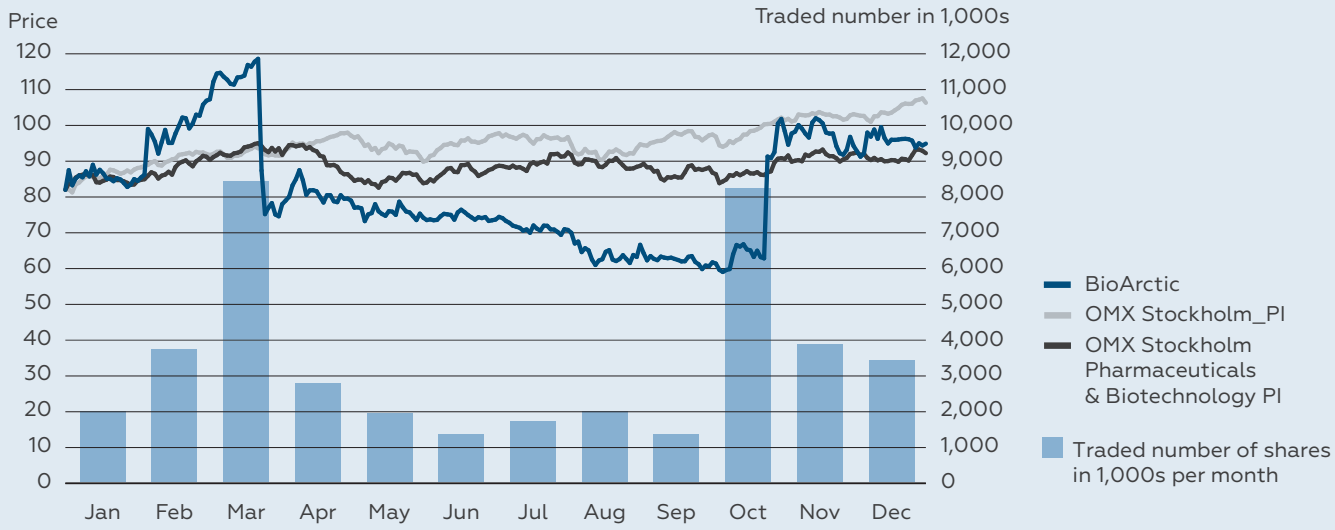


BioArctic share data	2019
Number of shares at year-end	88,059,985
Market value at year-end (MSEK)	8.4
Price change since listing (%)	294
Number of shareholders	9,435
Share price at year-end	94.90
Year high (SEK)	118.60
Year low (SEK)	59.05
Share of ownership, capital, 10 largest shareholders (%)	80.6

Share structure at December 31, 2019

Number of shares	Number of share-holders	A shares	B shares	Shares (%)
1–500	7,708	-	1,052,295	1.2
501–1,000	877	-	737,854	0.8
1,001–5,000	647	-	1,380,760	1.6
5,001–10,000	84	-	652,816	0.7
10,001–50,000	70	-	1,781,879	2.0
50,001–	49	14,399,996	81,737,029	92.8
Anonymous ownership	-	-	717,352	0.8
Total, December 31, 2019	**9,435**	**14,399,996**	**73,659,989**	**100.0**

Share price trends and volume, BioArctic 2019



Source: WebfinancialGroup

THE JOURNEY CONTINUES

It is in the nature of research and development that the likelihood of success and the time frame for future value-creating events are difficult to predict. The illustrations on these pages are intended to provide a schematic picture of BioArctic's future, but the development of pharmaceuticals rarely follows a straight line. Exactly what form the continued journey could take is difficult to foresee.

ALZHEIMER'S DISEASE

BAN2401 for treatment of early Alzheimer's disease

1. Results from the confirmatory Phase 3 study of early Alzheimer's disease
2. Potential submission of registration applications
3. Potential market approval
4. Potential global launch
   Potential launch in Nordic region

BAN2401 as preventive treatment

1. Results from the clinical program
2. Potential submission of registration applications
3. Potential market approval
4. Potential global launch
   Potential launch in Nordic region

AD1801, AD1502, AD1503 and AD2603

Continued development and potential new collaboration agreements

PARKINSON'S DISEASE

ABBV-0805

1. Results from ongoing Phase 1 study
2. Potential continued clinical development
3. Potential submission of registration applications
4. Potential market approval
5. Potential global launch

PD1601 and PD1602

Continued development in partnership with AbbVie

POTENTIAL REVENUE

- **MILESTONE PAYMENTS**
- **ROYALTIES**
- **REVENUE FROM SALES**
- **REVENUE FROM LICENSING**

- **MILESTONE PAYMENTS**
- **ROYALTIES**
- **REVENUE FROM SALES**

Based on its cutting-edge expertise in neurodegenerative diseases, BioArctic has built a broad and well-diversified project portfolio with the potential to improve the health of patients. The portfolio has a good risk spread and a healthy balance between self-financed and partner-financed projects. The diversity of projects in various development phases provides a solid basis for creating value for patients and their families as well as other stakeholders. A company with a varied project portfolio that enables risk diversification also has a greater possibility of attracting future collaboration partners and investors.

OTHER CNS DISEASES

Down's syndrome with dementia and cognitive impairment

1. Continued preclinical development of BAN2401
2. Potential decision to initiate clinical development

Traumatic brain injury

1. Continued preclinical development of BAN2401
2. Potential decision to initiate clinical development

Other CNS diseases with alpha-synuclein

Potential development of ABBV-0805 in partnership with AbbVie

ND3014 and new projects

Development of new CNS projects for partnership with global pharma companies

- REVENUE FROM LICENSING
- ROYALTIES
- REVENUE FROM SALES

BLOOD-BRAIN BARRIER TECHNOLOGY

1. Continued development of technology for improved passage across the blood-brain barrier
2. Application of technology in own projects
3. Potential collaboration agreements with one or more global pharma companies

- REVENUE FROM LICENSING

DIAGNOSTIC TOOLS

Alzheimer's disease

1. Continued development of improved diagnostics
2. Potential collaboration agreements with one or more global pharma companies

Parkinson's disease

Continued development of improved diagnostics with AbbVie

- REVENUE FROM LICENSING

Board of Directors' report

The Board of Directors and the Chief Executive Officer of BioArctic AB (publ), corporate registration number 556601-2679, hereby submit the Annual Report and consolidated financial statements for the 2019 financial year.

OPERATIONS AND STRATEGY

BioArctic AB (publ), based in Stockholm, Sweden, is the Parent Company in the BioArctic Group, which also includes the dormant subsidiaries SpineMedical AB and LPB Sweden AB. BioArctic AB is a Swedish research-based biopharma company focusing on disease-modifying treatments and reliable biomarkers and diagnostics for neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease. BioArctic focuses on innovative treatments in areas with high unmet medical needs. The company was founded in 2003 based on innovative research from Uppsala University, Sweden. The project portfolio is a combination of fully funded projects pursued in partnership with global pharma companies and innovative in-house projects with significant market and outlicensing potential. BioArctic's B share is listed on Nasdaq Stockholm Mid Cap (ticker: BIOA B) since the autumn of 2017.

BioArctic's vision is to generate innovative medicines that improve the life for patients with disorders of the central nervous system. Our work is based on groundbreaking scientific discoveries, and the company's researchers collaborate with strategic partners such as research groups at universities and major pharma companies. BioArctic has a great deal of scientific competence and years of experience in developing drugs from idea to market. BioArctic's business model involves the company initially pursuing project development under own management and, once the project has reached a phase of development requiring more resources or competence, signing research collaborations and partnership agreements or outlicensing certain commercial rights to global pharma companies. In recent years, BioArctic has successfully delivered innovative drug projects that have resulted in attractive collaboration agreements.

Alzheimer's disease

BioArctic has been collaborating with Eisai in the field of treatments for Alzheimer's disease since 2005. BioArctic has signed research collaboration and licensing agreements concerning the BAN2401 and BAN2401 back-up antibodies. The global confirmatory Phase 3 study (Clarity AD) with BAN2401 for patients with early Alzheimer's disease, which is based on the results of the Phase 2b study, is in progress. Eisai expects results from the Phase 3 study in 2022. In addition to the current Phase 3 study, an open label Phase 2b extension study with BAN2401 is ongoing and a further clinical program with BAN2401 for the purpose of preventing Alzheimer's disease is planned to start during 2020.

Research to generate new antibodies for treating neurodegenerative diseases with other innovative molecules that have a different mechanism of action is also under way at BioArctic with the goal of slowing or stopping the progression of Alzheimer's disease.

Parkinson's disease

BioArctic has been collaborating with the global biopharma company AbbVie on treatments for Parkinson's disease since 2016, when a research agreement was signed that included, among other things, the antibody ABBV-0805. At that time AbbVie received the rights to acquire a license to develop and commercialize the antibodies. In late 2018, AbbVie inlicensed the entire BioArctic portfolio with antibodies against alpha-synuclein, and undertook to pursue and finance clinical development.

In February 2019, the US Food and Drug Administration (FDA) approved the application BioArctic had prepared for AbbVie pertaining to permits to conduct clinical trials with ABBV-0805.

In the spring of 2019, AbbVie started the first clinical Phase 1 study of ABBV-0805 for Parkinson's disease.

Other CNS disorders

BioArctic strives to improve the treatments of a number of disorders of the central nervous system. The antibody BAN2401 is in the pre-clinical phase as a potential treatment of cognitive impairment and dementia in conjunction with Down's syndrome and of traumatic brain injuries. The area of application for drug candidate ABBV-0805 could be expanded to include diseases such as Lewy body dementia and multiple system atrophy. In addition, the company is evaluating the possibility of developing both existing and new antibodies in other indications in the CNS field.

Blood-brain barrier technology

The blood-brain barrier controls the exchange of substances between the bloodstream and the brain. It protects the brain from toxins and pathogens, but at the same time it can make the delivery of therapeutic agents to the brain more difficult. BioArctic and Uppsala University are collaborating on developing technology that facilitates the passage of antibodies across the blood-brain barrier. The barrier protects the brain from toxins and other pathogens, but it also makes it difficult for antibody drugs to reach their targets in the brain.

Together with Uppsala University, BioArctic received research grants during the year from Horizon 2020 for continued research in the blood-brain barrier project. Refer to page 40 for more information. The research, which is at an early stage, has shown good results and the technology has significant potential in the treatment of several different diseases of the brain.

Diagnostic tools

BioArctic is involved in the development of new tools that could improve diagnostics and the evaluation of treatments for Alzheimer's disease and Parkinson's disease. BioArctic is pursuing a number of projects in partnership with commercial and academic partners, including a study of biomarkers that could make it possible to diagnose Alzheimer's disease with a simple blood or spinal fluid sample and to monitor the results of the patients' treatment. Furthermore, the company is active in a project to improve positron emission tomography (PET) imaging of the brains of Alzheimer's patients.

PROJECT PORTFOLIO

At present, BioArctic has a competitive portfolio consisting of unique product candidates, diagnostics and technology. All projects in our portfolio are focused on disorders of the central nervous system. The company's project portfolio is a combination of fully funded projects pursued in partnership with global pharma companies and innovative in-house projects with significant market and outlicensing potential. During the year, two drug candidates – BAN2401 and ABBV-0805 – advanced to the next clinical phase in their respective development programs. In November 2019, the Board of Directors of BioArctic decided to close the Phase 1/2 study for the SC0806 project, a potential treatment for patients with complete spinal cord injury, as the results showed no convincing effects.

BioArctic's project portfolio is in various stages – from the early research phase to the late clinical phase. As of December 31, 2019, the portfolio comprised:

- Two drug candidates in clinical phase: BAN2401 for early Alzheimer's disease (Phase 3) and ABBV-0805 for Parkinson's disease (Phase 1)
- Three projects in preclinical phase: BAN2401 for indications other than Alzheimer's disease (e.g. Down's syndrome with dementia); BAN2401 back-up for Alzheimer's disease; and one project in biomarkers and diagnostics for Alzheimer's disease
- Nine projects in the research phase: four projects for Alzheimer's disease (AD1801, AD1502, AD1503, AD3503); two projects for Parkinson's disease (PD1601, PD1602); one project for other CNS disorders (ND3014), one project in diagnostic methods for Parkinson's disease one technology platform focused on blood-brain barrier transport.

COLLABORATION, PARTNERSHIP AND MAJOR AGREEMENTS

Collaborations with universities are of great importance to BioArctic. The company currently collaborates with leading research groups at a number of universities. Another important part of BioArctic's strategy is partnership and licensing agreements with leading pharma and biopharma companies. In addition to financial compensation, BioArctic gains access to its partners' competence in developing, manufacturing and commercializing drugs. BioArctic has signed several agreements with the international Japanese pharma company Eisai and the global US biopharma company AbbVie. These strategic partnerships with leading global companies are evidence of the high level of quality in BioArctic's research. In the future, BioArctic may sign additional agreements that could contribute further funding, as well as competence in research and development for product candidates in the preclinical and clinical phase, competence in manufacturing and marketing, geographical breadth and other resources.

Eisai

BioArctic has been collaborating with Eisai in the field of Alzheimer's disease since 2005. BioArctic has signed an agreement for a global and exclusive license to Eisai for research, development and commercialization of drugs that use antibodies to treat Alzheimer's disease. Eisai is responsible for the clinical development, applications for market approval and commercialization of the products. BioArctic retains the rights to commercialize the licensed products in the Nordic region and the rights to the antibodies for treatment of indications other than Alzheimer's disease. The company has signed a number of agreements concerning the BAN2401 and BAN2401 back-up antibodies. The total value of these agreements may amount to MEUR 221, in addition to the associated royalties. Approximately MEUR 62 has been received to date, of which MEUR 15 was recognized as revenue in 2019.

AbbVie

In September 2016, BioArctic and AbbVie signed a licensing and research agreement to develop and commercialize BioArctic's portfolio of antibodies that target alpha-synuclein for the treatment of Parkinson's disease and other potential indications, and thereby the associated diagnostics.

At the end of 2018, AbbVie exercised its option for the license to further develop and commercialize products containing BioArctic's antibody BAN0805 (now ABBV-0805) and other antibodies discovered or developed as part of the research collaboration. BioArctic has primary responsibility for the preclinical development work and AbbVie is responsible for the clinical development. The total value of the agreement could amount to MUSD 755 in addition to royalties. MUSD 130 has been received to date, of which MUSD 12 was recognized as revenue in 2019.

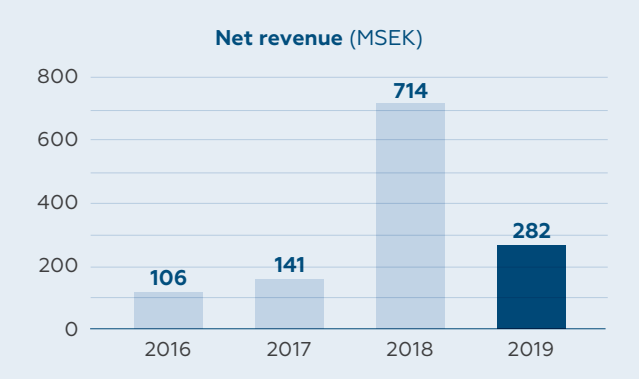
The EU Horizon 2020 research and development program

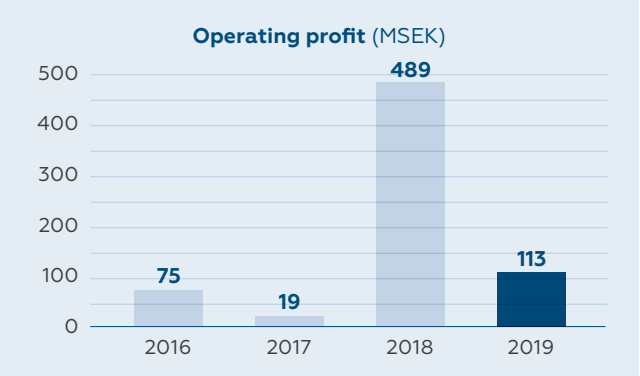
At the end of 2018, BioArctic and Uppsala University together received a grant from the EU's Horizon 2020 program for participation in a European research consortium that is working on better diagnostic tools and biomarkers for Parkinson's disease. The project has received grants from the EU Horizon 2020 research and innovation program as part of the Marie Sklodowska-Curie Actions (Grant Agreement No. 813528).

BioArctic also has an agreement, still valid for the 2019 financial year, with Horizon 2020 on grants pertaining to the company's now-concluded SC0806 spinal cord injury project. The Phase 1/2 study received financing from the EU Horizon 2020 research and development program (Grant Agreement No. 643853).

REVENUE AND OPERATING PROFIT

Net revenue totalled MSEK 281.8 (714.0), down MSEK 432.2 year-on-year. Of the year's net revenue, a milestone payment from the research collaboration with Eisai represented MSEK 162.0 (MEUR 15.0). Other net revenue comprised income from the collaboration agreement with AbbVie. The year-on-year decrease is attributable to lower milestone payments and decreased revenue in the Parkinson's program. Currently, BioArctic does not have any drugs that have been commercialized and are being sold on the market, which means that the company's revenue streams could be uneven over the financial years and between quarters. BioArctic received a milestone payment from AbbVie totalling MSEK 448.6 in the preceding year. Other operating income – relating primarily





to research grants, operational currency exchange gains and costs that were invoiced onward – totalled MSEK 14.8 (16.3). The decrease is due primarily to lower revenue from research grants. Total revenue during the financial year was thus MSEK 296.6 (730.2).

Operating costs totalled MSEK 184.1 (241.4), a decrease of MSEK 57.3.

Project costs totalled MSEK 72.4 (145.4), which was a decrease of MSEK 72.9 year-on-year. The net decrease is attributable to a planned lower level of activity in the Parkinson's program. Costs attributable to own projects increased, however. Other external costs decreased marginally during the year to MSEK 31.2 (31.9). Personnel costs increased to MSEK 59.7 (57.0), attributable primarily to an increase in variable remuneration to employees as well as in the number of employees. Depreciation of non-current assets increased during the year to MSEK 9.2 (2.1) due to the transition to IFRS 16 Leases, refer to Note 9. Other operating costs totalled MSEK 11.6 (5.0) and consisted of realized operational exchange rate losses.

Operating profit during the year totalled MSEK 112.5 (488.8). The decrease is attributable, as described above, primarily to the milestone payment of MSEK 448.6 recognized as revenue in 2018.

FINANCIAL COSTS, TAX, PROFIT FOR THE YEAR AND EARNINGS PER SHARE

The Group's net financial items for 2019 totalled MSEK 0.4 (0.8). Financial income consisted of financial exchange rate gains, and financial costs consist of a negative interest rate on cash and cash equivalents as well as interest on lease liabilities under IFRS 16 Leases. Profit before tax was MSEK 113.0 (489.6).

Tax costs for the year totalled MSEK 24.4 (108.0), which corresponds to an effective tax rate of 21.6 per cent (22.1).

Profit for the year totalled MSEK 88.5 (381.6), corresponding to SEK 1.00 per share (4.33) before and after dilution in 2019.

EXCHANGE RATE FLUCTUATIONS

BioArctic is domiciled in Sweden and reports its financial position and its earnings in Swedish kronor (SEK). BioArctic's revenue currently consists essentially of remuneration from partnership and licensing agreements with Eisai and AbbVie, in which payments are received in EUR and USD respectively. BioArctic routinely purchases services in currencies other than SEK, primarily GBP, USD, EUR and CHF. The flows of currencies other than SEK in conjunction with the purchase and sale of goods and services are subject to transaction exposure. BioArctic balances this exposure by purchasing and selling foreign currencies corresponding to the company's commitments.

FLUCTUATIONS CONCERNING REVENUE GENERATION

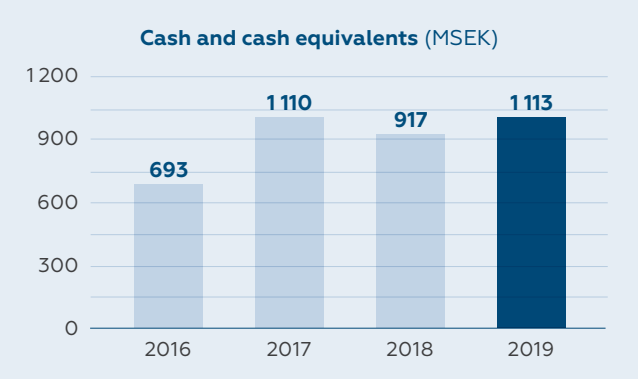
Currently, BioArctic does not have any drugs that are being commercialized or sold on the market. The company develops drug candidates for disorders of the central nervous system, primarily Alzheimer's disease and Parkinson's disease, in collaboration with pharma companies. The company also conducts research projects under own management, including new potential antibody therapies, diagnostic tools as well as a blood-brain barrier technology platform. The company signs research and licensing agreements with partners and then receives remuneration for research as well as milestone payments and royalties, which the company uses to finance current and new projects. Milestone payments are normally received when the project reaches predetermined development targets – the start of clinical trials, for example – or when clinical trials move from one phase to a later phase. Owing to the character of BioArctic's revenue, these revenue streams arise unevenly over time throughout the financial year and between quarters, and they are difficult to predict.

BALANCE SHEET AND FINANCIAL POSITION

BioArctic's balance sheet total as of December 31, 2019 was MSEK 1,183.4 (1,393.0), corresponding to a decrease of 15 percent. This decrease is attributable primarily to BioArctic's payment of a dividend of MSEK 132.1 during the year.

Financial position

MSEK	Dec 31, 2019	Dec 31, 2018
Non-current lease liabilities	20.9	-
Current lease liabilities	6.4	-
Cash and cash equivalents	1,112.8	917.3
Cash and cash equivalents, net	**1,085.5**	**917.3**



Non-current assets

BioArctic's non-current assets totalled MSEK 9.6 (9.3). These assets consisted primarily of laboratory equipment and improvements on other parties' property. The company's non-current financial assets totalled MSEK 1.5 (1.5) and consisted primarily of deposits on leases. The company has no intangible fixed assets.

Current assets

Current assets in BioArctic consist of current receivables as well as cash and cash equivalents. The company's cash and cash equivalents at year end totalled MSEK 1,112.8 (917.3), corresponding to an increase of MSEK 195.5.

Investments

Investments in fixed assets for the year totalled MSEK 3.3 (3.1) and pertained primarily to scientific instruments.

Equity and liabilities

Equity as of December 31, 2019 totalled MSEK 974.6 (1,017.7), corresponding to a decrease of MSEK 43.1. Equity per share outstanding totalled SEK 11.07 (11.56). The equity/assets ratio was strengthened from 73.1 percent as of December 31, 2018 to 82.4 percent as of December 31, 2019. At the end of the year, there were lease liabilities of MSEK 27.3 (–), which was an effect of the transition to IFRS 16 Leases. No loans had been taken out as of December 31, 2019, and the Group has no other credit or facilities, which means the Group had a positive net cash balance at year-end.

CASH FLOW

The Group's cash flow from operating activities before changes in working capital improved during the year, totalling MSEK -76.6 (-250.3). Cash flow from operating activities after changes in working capital also increased, totalling MSEK 327.2 (-200.1), an increase of MSEK 527.3. The increased cash flow is due to the milestone payments of MSEK 460.0 from AbbVie and MSEK 162.0 from Eisai.

Cash flow from investing activities during the year totalled MSEK -3.3 (-3.1).

Cash flow from financing activities during the year totalled MSEK -138.5 (–). Of the cash flow from financing activities, MSEK -132.1 (–) pertained to the dividend. The remainder pertained to amortization of lease liabilities and is an effect of the transition to IFRS 16 Leases.

Cash flow for the year totalled MSEK 185.4 (-203.1).

EMPLOYEES

As of December 31, 2019, BioArctic had 42 employees (31). The average number of employees at BioArctic during the year was 37 (29), all of whom are employed in Sweden at the company's head office in Stockholm. Gender equality is part of BioArctic's diversity efforts. In 2019, 26 employees (19) – 62 percent – were women and 16 employees (12) – 38 percent – were men. Of the total number of employees, 85 percent (90) worked in research and development.

BioArctic hires external companies to a great extent to perform such tasks as the production of pharmaceutical substances and clinical testing. In order to conduct efficient operations with a relatively small organization, BioArctic hires consultants in key roles for specific assignments and for work tasks in areas of competence that the company lacks or has only periodic need of. In total, the number of employees and consultants employed in 2019 was 53 (41).

BioArctic endeavors to offer competitive salaries and benefits, and applies an individually adjusted wage structure adapted to the local market. BioArctic's ambition is to offer a work environment that promotes health and well-being and a sound balance between work and private life.

KEY EVENTS DURING THE FINANCIAL YEAR

FIRST QUARTER, JANUARY–MARCH 2019

- BioArctic announced that the company's partner, Eisai, would be starting a single confirmatory Phase 3 study with BAN2401 for early Alzheimer's disease, and provided information on the study design and timetable.
- The US Food and Drug Administration approved the application to begin a clinical study in the Parkinson's program with ABBV-0805, previously under the designation BAN0805.
- BioArctic's product candidate SC0806, for patients with complete spinal cord injuries, entered Phase 2 of the Phase 1/2 study.
- Eisai initiated the confirmatory Phase 3 study with BAN2401 for early Alzheimer's disease.
- BioArctic announced that AbbVie had begun the clinical Phase 1 study with ABBV-0805 in the Parkinson's program.

SECOND QUARTER, APRIL–JUNE 2019

- BioArctic received a milestone payment of MEUR 15 from Eisai when the confirmatory Phase 3 study with BAN2401 in early Alzheimer's disease was started.
- The Alzheimer's Clinical Trials Consortium and Eisai announced that BAN2401 would be evaluated in a clinical study for the purpose of preventing Alzheimer's disease
- The 2019 AGM resolved:
  - to introduce the 2019/2028 warrant program for the company's management, researchers and other staff
  - on a dividend of SEK 1.50 per share to the shareholders, a total of MSEK 132.1
  - to elect Ewa Björling as a new Board member

GUIDELINES FOR REMUNERATION TO SENIOR EXECUTIVES

For a detailed description of applicable guidelines regarding remuneration and other terms of employment for the CEO and other senior executives as well as proposals for new guidelines for 2020 on remuneration to senior executives, refer to the Corporate Governance Report on pages 51–59 and to Note 7.

On page 56 of the Corporate Governance Report there is also a section describing the deviations from the guidelines (adopted at the 2019 AGM) that the Board of Directors of BioArctic decided on for financial year 2019.

LONG-TERM INCENTIVE PROGRAMS

BioArctic has a long-term incentive program (the 2019/2028 program) in the form of a warrant program intended for the company's senior executives, researchers and other staff. The purpose of the incentive program is to encourage broad share ownership among BioArctic's employees, facilitate recruitment, retain skilled employees and increase employee motivation and performance. The program, which is intended for 41 employees in total, includes a total of 1,000,000 warrants. Of these, 480,000 warrants have been subscribed. If the maximum number (i.e. 1,000,000 warrants) are utilized, the dilution will total 1.1 percent of the share capital and 0.5 percent of the voting rights in the company. The vesting period or alternatively the time from entering into the agreement until a share is acquired, must not be less than three years.

In addition to the long-term incentive program described above, BioArctic's two founders – and primary owners, Demban AB and Ackelsta AB (independent of the company) – issued call options to a total of twelve Board members and senior executives in the company, including the CEO, in 2017. In total, the program grants the right to the purchase of 366,795 shares of the primary owners' B shares in BioArctic, of which 207,405 have been utilized.

BioArctic has two reward programs: one linked to the company's Alzheimer's project and one linked to the Parkinson's project. The reward program covers all permanent employees excluding the founders but including the CEO. Variable remuneration is paid when the company achieves certain goals linked to the clinical programs.

To read more about the programs, refer to page 56 in the Corporate Governance Report and Note 7.

ENVIRONMENT, SUSTAINABILITY AND SOCIAL RESPONSIBILITY

As part of its sustainability efforts, BioArctic conducts high-quality research that promotes sustainable and innovative solutions to society's health challenges. BioArctic endeavors to integrate economic and social sustainability at all levels of its operations, to continually improve the company's procedures, quality assurance systems and work environment, and to take action to prevent the environmental impact of its own operations. The operations BioArctic conducts are characterized by transparency, creativity and respect for the equal worth of all. The company's work with its partners promotes sustainable development and value creation.

BioArctic is a responsible business partner and employer, and complies with environmental and work environment

THIRD QUARTER, JULY-SEPTEMBER 2019

- BioArctic and Eisai presented additional data regarding BAN2401 at the Alzheimer's Association International Conference® (AAIC) that confirmed BAN2401's unique properties and showed good concordance with previously presented results.
- Lars Lannfelt, co-founder of BioArctic and professor of geriatrics at Uppsala University, received one of the world's most prestigious awards in Alzheimer's research: the Khalid Iqbal Lifetime Achievement Award in Alzheimer's Disease Research.

FOURTH QUARTER, OCTOBER–DECEMBER 2019

- BioArctic announced that the SC0806 spinal cord injury project would be closed, as the primary endpoint of the study had not been achieved.
- BioArctic presented two strategic management group recruitments: Tomas Odergren, who will replace Hans Basun (who has taken on another senior role at BioArctic) as Chief Medical Officer as of January 1, 2020; and Oskar Bosson, who will be the company's VP Communications & IR as of May, 2020.
- BioArctic announced a research collaboration with Eisai regarding BAN2401. Remuneration to BioArctic for implementing the research collaboration may total approximately MSEK 34.
- BioArctic and Eisai presented data regarding drug candidate BAN2401 at the international Clinical Trials on Alzheimer's Disease (CTAD) conference in San Diego.

legislation. In addition, BioArctic has internal policies that encompass guidelines for the environment and the work environment. Pharmaceutical research is conducted in BioArctic's offices in Stockholm. The operations comply with the permits issued to BioArctic by the government agencies concerned. For example, the company has permits from the Swedish Work Environment Authority (sv. *Arbetsmiljöverket*) regarding the use of chemicals, and the Swedish Board of Agriculture (sv. *Jordbruksverket*) regarding the import and use of biological tissues in the company's laboratory. In accordance with Swedish environmental legislation, BioArctic is registered with the Stockholm County Administrative Board (sv. *Länsstyrelsen*) to conduct its operations. BioArctic is not involved in any environmental disputes. No workplace accidents were reported to Arbetsmiljöverket in 2019.

BioArctic contracts only manufacturers of drugs (antibodies) whose facilities are certified in accordance with the relevant legislation. The same applies to procurement of contract research organizations (CROs).

PARENT COMPANY

BioArctic AB (publ), based in Stockholm, Sweden, is the Parent Company in the BioArctic Group. All Group operations are conducted in the Parent Company. The Parent Company's profit for the 2019 fiscal year totalled MSEK 66.0 (285.8).

SHARE CAPITAL AND OWNERSHIP

BioArctic's B share is listed on Nasdaq Stockholm Mid Cap. The market value at year end totaled MSEK 8.4 billion (7.2). BioArctic's share price rose 16 percent during 2019. The share price peaked at SEK 118.60 on March 20, 2020, and its lowest price – SEK 59.05 – was noted on October 3, 2020. The share price closed at SEK 94.90 (82.00) on December 31, 2019. At the end of 2019, BioArctic had 9,435 shareholders (8,221). Swedish owners represented 94.4 percent of the capital and 97.7 percent of the votes. The primary owners were Demban AB (Lars Lannfelt) with 50.1 percent of the votes and 35.6 percent of the capital, and Ackelsta AB (Pär Gellerfors) with 33.4 percent of the votes and 23.7 percent of the capital.

EVENTS AFTER THE END OF THE FINANCIAL YEAR

The spread of Covid-19 has increased in intensity and scope, both in Sweden and around the world, in the first quarter of 2020. BioArctic is carefully monitoring the course of events in our business environment and is complying with guidelines from government authorities. At present it is difficult to assess, and too early to estimate, how the virus will impact BioArctic's operations over the long term.

FUTURE PROSPECTS

Apart from the expectation that the estimated operating expenses for the January–December 2020 financial year will total MSEK 180–230, compared with the total operating expenses of MSEK 184 for 2019, BioArctic issues no financial forecasts regarding its future performance. The company enjoys a strong financial position and has a business model in which its revenue and earnings are primarily based on non-recurring revenue from research and licensing agreements the company has signed. The company's liquidity facilitates continued development of the projects covered by strategic collaboration agreements as well as financing of the company's own less costly projects. All of BioArctic's focus therapeutic areas, such as Alzheimer's disease, Parkinson's disease and other CNS disorders are areas that currently lack effective treatments and have great market potential. The company's ambition is to generate the medicines of the future that improve life for people with central nervous system disorders. The company's cash holdings remain strong, which creates possibilities for the continued exciting development of BioArctic.

DIVIDEND POLICY AND DIVIDEND

Since BioArctic has no product sales, the company's current revenue and earnings are primarily based on revenue of a non-recurring character in accordance with the research and licensing agreements the company has signed. BioArctic will continue to focus on further developing and expanding the company's project portfolio. Available funds and earnings recognized will therefore primarily be reinvested in operations for funding the company's long-term goals and strategy. It is the intent of the Board not to propose any dividend to shareholders until the company generates long-term sustainable profitability. Any future dividends and the size thereof will be established based on the company's long-term growth, earnings trends and capital requirements, taking into account goals and strategies in force at any given time. To the extent a dividend is proposed, it will be well-judged, taking into account the goals, scope and risks of the operations.

The Board proposes that no dividend be paid for the 2019 financial year.

APPROPRIATION OF PROFITS

The Board proposes that the consolidated income statement and balance sheet be presented to the AGM on May 7, 2020 for adoption and that the profit for the year be carried forward.

At the disposal of the Annual General Meeting:	(SEK)
Share premium reserve	560,017,974
Retained earnings	207,996,500
Profit for the year	65,953,814
Total	**833,968,288**

Five-year summary

Amounts in MSEK	2019	2018	2017	2016	2015
Income statement					
Net revenue	281.8	714.0	140.7	105.6	41.6
Other operating income	14.8	16.3	19.0	39.1	7.6
Expenses	-184.1	-241.4	-140.5	-69.8	-44.3
Operating profit	112.5	488.8	19.3	74.6	4.8
Profit for the year	88.6	381.6	15.2	57.6	3.7
Operating margin, %	39.9	68.5	13.7	70.7	11.7
Consolidated balance sheet					
Non-current assets	39.0	11.0	10.0	8.5	12.7
Current assets excl. cash and cash equivalents	31.6	464.8	20.1	7.0	4.6
Cash and cash equivalents	1,112.8	917.3	1,110.4	692.5	113.8
Equity	974.6	1,017.7	636.1	60.8	108.3
Deferred tax liabilities	38.7	32.5	5.5	4.1	-
Non-current liabilities	20.9	-	-	-	-
Current liabilities	149.2	342.8	498.9	643.1	22.8
Cash flow					
From operating activities	327.2	-200.1	-135.3	675.1	-16.4
From investing activities	-3.3	-3.1	-2.8	-3.0	-2.3
From financing activities	-138.5	-	560.2	-105.1	-
Cash flow for the year	185.4	-203.1	422.1	567.1	-18.7
Key ratios					
Equity/asset ratio, %	82.4	73.1	55.8	8.6	82.6
Return on equity, %	8.9	46.1	4.3	68.1	3.5
Data per share, SEK					
Earnings per share, before and after dilution	1.01	4.33	0.22	0.91	0.06
Equity per share	11.07	11.56	7.22	0.96	1.72
Cash flow from operating activities per share	3.72	-2.27	-1.99	10.71	-0.26
Share price at December 31 [1)]	94.90	82.00	26.00	-	-

[1)] The company was listed in October 2017, so no observable share price exists before the listing.

Risks and risk management

Risk exposure and risk management are a natural part of business operations. Risks are something that could impact BioArctic's operations negatively, but managed correctly could also add value to the company. The focus is on identifying risks, preventing risks from arising and preparing action plans that facilitate limiting any damage these risks could cause.

RISKS

A risk is defined as an uncertainty prior to the occurrence of an event that could impact the company's ability to reach its established goals. Risks are a natural part of all business operations, and they must be handled effectively by the organization.

BioArctic conducts an annual integrated risk assessment that identifies and assesses risks that could potentially impact the company's possibility of achieving its goals.

RISK MANAGEMENT

Risk management is intended to provide against, prevent and limit the negative effects of risks on operations. BioArctic's management has identified possible events and scenarios that could have an impact on the company's operations. The events have been evaluated and compiled into a net list of the risks deemed to be the most relevant. For the purpose of managing and countering identified risks, a number of control activities (measures to limit risk) have been established. There are activities to counter, limit, control and manage risks. The risk owners are the members of management who routinely work on managing and preventing the risks in their daily operations, as well as those who identify new risks. The risks are evaluated and processed annually in the Audit Committee, which furnishes Group-level risks for the Board.

Control and incident management

BioArctic conducts routine checks in its operations, and reviews and updates the company's instructions and work processes. The outcome of the controls are reported, and form a part of the routine risk management process.

Insurance

BioArctic has insurance protection that is revised annually. The insurance covers property including research equipment and cooling facilities, and there is also operation insurance. In addition there is liability insurance for companies, Board members and senior executives.

Crisis management

BioArctic has documented crisis management plans. During the year, a crisis exercise was conducted among management to ensure proper preparedness in the event of a crisis and that the correct measures are taken. The goal of crisis management is to minimize the acute damage in situations that are not covered in normal procedural descriptions.

OPERATIONAL AND STRATEGIC RISKS

(A) Negative outcome in the project portfolio

Research and development of drugs is associated with a high level of risk, in the sense that major financial resources are invested in a project that perhaps will never become a finished

drug. A large portion of the research projects being conducted in the field are discontinued during the process, since the drug candidates produced either cannot demonstrate the intended effect or turn out to have too high level of undesirable side effect. BioArctic works routinely with various scenarios and preparations as regards various outcomes, and strives for a well-differentiated and well-compiled project portfolio with projects in various phases of development.

(A1) Overall portfolio strategy
BioArctic operates in a complex area of research: disorders of the central nervous system (CNS). The company's success is affected by strategic decisions regarding future project priorities, positioning and market strategy.

(A2) Outlicensed projects conducted by partners
The two projects that have come furthest in BioArctic's research portfolio are BAN2401 for Alzheimer disease, which is in Phase 3, and ABBV-0805, which is in Phase 1. These projects have been outlicensed to external partners: BAN2401 to Eisai and ABBV-0805 to AbbVie, who are also paying for the clinical studies. A significant portion of the value of BioArctic today is linked to the outcomes of these projects.

(A3) Smaller projects conducted in-house and under own development
BioArctic has a broad, well-balanced research portfolio. The company conducts in-house research on disorders in the central nervous system, as well as on diagnostics and technology. The smaller in-house projects are in earlier phases and are smaller in scope. The projects in diagnostics and platform technology are being conducted in partnership with universities.

(B) Impact of outcomes among competitors
BioArctic operates in areas of research that are large in terms of both medical need and patient group sizes. Competition in these areas is thus significant, and competitors could develop, market and sell drugs that are more effective, safer and priced lower than BioArctic's. For the company, assessing the risks that exist in the respective research areas and routinely monitoring and evaluating changes in the respective markets is of great importance. BioArctic is affected by how competitors in the market perform, and whether they capture market share with their products or reach the market faster than BioArctic. The development in other, competing pharma companies and biotech companies conducting research in the same therapeutic areas could impact BioArctic negatively as a result of negative study outcomes, a deteriorating competitive situation and/or an impaired view of the business environment of companies conducting operations in the same areas of research. BioArctic routinely monitors competitors and developments in the industry in its niche areas. The company routinely generates its own data to demonstrate differentiation from competitors in order to point out differences as well as more favorable effect and/or side effect profiles. A clear communication strategy with various scenarios based on the outcome of competitors' studies is routinely produced to reduce the risk of a negative impact on the brand.

(C) IT and information security risks, and risks of hacking
Risks of deficiencies in the company's IT security could lead to unauthorized access to critical data and/or loss of sensitive data. Insufficient IT security could lead to trade secrets being made available to unauthorized persons through theft or hacking. The risks are routinely managed through reviews of IT security, clear rules and routines for how information is shared, perimeter security, controls and training.

(D) Longer outages in operation-critical systems
An outage in operation-critical systems could result in disruptions to operating activities and impact routine reporting. Routine checks, stricter requirements as regards redundancy, clear preparedness plans and supplementary security storage through offsite server rooms are all part of managing the risks of outages.

(E) Partner-related risks
A significant part of BioArctic's operations and business model is entering into collaboration agreements with pharma and biotech companies to develop and sell potential products. Differences of opinion and conflicts may arise among BioArctic's partners or counterparties as regards the conditions of agreements in force, such as the interpretation of clinical data, achievement of milestone payments, interpretation of financial remuneration or ownership rights of patents and similar rights developed as part of these partnerships. At present, BioArctic is largely dependent on partners who are significantly larger than BioArctic.

(F) Patents, intangible assets and government decisions
BioArctic's future successes depend largely on the company's ability to receive and maintain protection of the intangible assets attributable to its products. The conditions for patented discoveries in the field of drugs and biotech are generally difficult to assess and encompass complex legal and scientific issues. There is no guarantee that BioArctic can receive and maintain patents for its products or its technologies. Even if a patent is issued, it can be appealed, declared invalid or circumvented, which could limit BioArctic's ability to prevent competitors from marketing similar products and reduce the period during which BioArctic has patent protection for its future products.

BioArctic is subject to decisions by government agencies such as in relation to the permits necessary to conduct clinical studies and to commercialize drugs as well as changes

to regulations that could take place in areas such as pricing, discounting drugs or changes in circumstances for drug prescriptions.

(G) Product liability and insurance
BioArctic's operations entail product liability, which is unavoidable in conjunction with research and development, preclinical studies, clinical studies, production, marketing and sales of drugs. Even if BioArctic deems existing insurance protection to be sufficient, the scope and amount of compensation under this insurance protection is limited. There is therefore no guarantee that BioArctic will be fully compensated for any damage under its existing insurance protection. Nor can it be guaranteed what impact the requirements of product liability or other requirements will have on BioArctic's operations and financial position.

(H) Employee risks
BioArctic is dependent to a great extent on key persons to facilitate high-quality research and thus an attractive future project portfolio. The ability to recruit and retain qualified employees is of extreme importance to ensure the level of competence in the company. BioArctic has a focus on leadership and core values as well as issues of diversity and equality, and strives to make the company an attractive and sustainable workplace in which good health and a satisfactory work environment are fundamental.

(I) Climate, sustainability and environmental risks
BioArctic's ambition is to conduct research of the highest quality that promotes sustainable and innovative solutions to society's health challenges. The company strives to be a responsible business partner and employer that complies with environmental and work environment legislation and works actively in the field of sustainability. The operations comply with the permits issued to BioArctic by the government agencies concerned.

(J) Internal and external regulatory risks
For BioArctic, compliance with laws and other regulations is of great importance, as is conducting operations in accordance with sound business practices. Violations or neglect concerning issues in these areas could damage the company's reputation and result in both sanctions and fines. For preventive purposes, BioArctic has prepared a number of policies, a procedure for internal controls and a quality assurance organization that works to ensure clear procedures and documentation as regards compliance with operation-specific regulations.

For BioArctic, ethical and moral positions are frequently important in its daily operations. The company's actions as regards ethics, morals, security and integrity characterize its corporate culture and thus how the company conducts its operations.

(K) Risk of errors in financial reporting
BioArctic routinely updates its risk analysis to ensure correct financial reporting. Management and the Board of Directors make decisions annually on which risks are essential to monitor in order to ensure proper internal control in financial reporting. A more detailed description of BioArctic's work on internal control can be found in the Corporate Governance Report on pages 58–59.

STRATEGIC AND OPERATIONAL RISKS

RISK	DESCRIPTION OF RISK	MITIGATION
A	Negative outcome in the project portfolio, divided into:	
A 1	Overall portfolio strategy	The risk is mitigated using a well-differentiated and well-compiled project portfolio in CNS. The company routinely evaluates various business opportunities to strengthen the potential of its project portfolio.
A 2	Outlicensed projects conducted by partners	Comprehensive data collection, continual review of the projects and routine contact with external partners.
A 3	Smaller projects conducted in-house and under own development	Comprehensive data collection, continual review of the project. Scenario analyses and routine evaluation in pace with the progress of the projects.
B	Impact of outcomes among competitors	Generation of own data to demonstrate differentiation from competitors. Market analysis. Communication management.
C	IT and information security risks, and risks of hacking	Great importance is placed on preventive work and checks. High level of awareness concerning security issues.
D	Longer outages in operation-critical systems	Routine checks, stricter requirements as regards redundancy. Contingency plans and safety stockpiling.
E	Partner-related risks	Clear documentation of agreements and close dialogue. Routine evaluation and monitoring.
F	Patents, intangible assets and government decisions	Well-documented patent strategy and in-house patent counsel. Routine monitoring of developments in the legal field.
G	Product responsibilities and insurance	BioArctic routinely reviews the company's insurance protection and complies with existing regulations and documentation requirements as regards product liability.
H	Employee risks	Succession plans have been prepared, and critical roles and functions have been identified.
I	Climate, sustainability and environmental risks	BioArctic's operations have a limited impact on the climate and the environment. Operations are conducted in accordance with existing permits and regulations, and with a focus on sustainability.
J	Internal and external regulatory risks	BioArctic has a structure for internal controls and has established an external audit function of the internal controls.
K	Risk of errors in financial reporting	Checks have been implemented to ensure correct reporting. Routine checks of identified areas, and monitoring.

CHAIRMAN'S COMMENTS

It has been 17 years since Lars Lannfelt and Pär Gellerfors founded BioArctic based on Lars Lannfelt's research into disorders affecting the central nervous system. The company has grown from being an unknown research company into one of the world's leading players in future treatments for Alzheimer's and Parkinson's diseases, blood-brain barrier research and diagnostic tools. The company's development and growth since its beginnings have been impressive.

Like 2018 before it, 2019 was a very positive and eventful year for BioArctic. Together with Eisai, the company's collaboration partner in the field of Alzheimer's disease, BioArctic received positive results with BAN2401. The start of the Phase 3 study, which is designed to confirm the successful Phase 2b study, meant that BioArctic received a MEUR 15 milestone payment. At the same time, our own earlier research projects in the field of Alzheimer's disease, as well as the company's research into technologies and methods for getting antibodies to safely and effectively pass the blood-brain barrier, made favorable progress. The collaboration with AbbVie on Parkinson's disease progressed according to plan during the year, and the ABBV-0805 project is in an ongoing Phase 1 study.

On pace with the growth and development of BioArctic, the company's organization, governance and controls have also developed further. The requirements BioArctic complies with as a listed company have resulted in a substantial increase in the level of ambition, and thus in quality, which I consider to be a positive and natural step in ensuring that the company's structural capital is built up on pace with the company's growth. It is gratifying to be able to state that the management has been enriched with competence that is new and valuable for the company. Today, the management and Board of BioArctic has years of experience and a broad range of competence that I consider central to the company's future performance.

BioArctic has well developed partnerships with leading global pharma companies and important scientific institutions at several of the leading Swedish universities. The company's business model means that we conduct initial research under our own management. When the projects have grown significant enough to require major financial resources, we enter into partnerships in which portions of the research portfolio are outlicensed to reputable pharma companies. Working effectively in partnerships is something that BioArctic has historically done successfully, and today it permeates the entire organization.

The company has begun the next step in its work relating to issues of equality, diversity and the work environment to also include a broader sustainability strategy. For BioArctic, sustainability is closely linked with the company's vision of generating innovative medicine that improve life for patients with disorders of the central nervous system. The responsibilities we assume thus contribute to positive development for society as a whole, for patients and for our employees.

I would like to conclude by stating that 2019 was yet another fantastic year for BioArctic. On behalf of the Board of Directors, I would like to extend our warmest thanks to management and all our employees for their commitment and hard work that led to the year's success. I would also like to thank our shareholders for their support of an outstanding company.

Stockholm, March 31, 2020

Wenche Rolfsen
Chairman of the Board

Corporate governance report

At BioArctic, the purpose of corporate governance is to create value for the company's shareholders through active control of risks and a well-functioning corporate culture. Corporate governance refers to the rules and decision-making hierarchies that promote efficient and controlled management of the operations of a company.

GOVERNANCE MODEL

BioArctic AB, corporate registration number 556601-2679, is a Swedish limited company that has been listed on the Mid Cap segment of Nasdaq Stockholm since October 2017. The registered office is in Stockholm, Sweden. The Corporate Governance Report forms part of the company's Board of Directors' report.

Corporate governance at BioArctic, which can be divided into external and internal governance documents, is in compliance with Swedish law, the Nasdaq Stockholm Issuer Rules and the Swedish Code of Corporate Governance (the Code) as well as internal regulations and instructions.

External governance documents

The external governance documents constitute the framework for corporate governance. These include the Swedish Companies Act, the Swedish Annual Accounts Act, the Nasdaq Stockholm Issuer Rules, and the Code. BioArctic applies the Code, and no deviations from the Code occurred during the year. The company was not subject to any decision of the Nasdaq Stockholm disciplinary board or any statement by the Swedish Securities Council during the year.

Internal governance documents

Internal governance documents include the Articles of Association adopted by the Annual General Meeting, internal instructions and guidelines. Examples of internal instructions and guidelines include the Board of Directors' rules of procedure, formal work plans for the committees and instructions to the CEO. In addition, the Board of Directors of BioArctic has adopted a number of policies and guidelines that control the company's operations, and instructions for financial reporting are documented in the company's finance handbook.

BioArctic aims for a high standard through clarity and simplicity in its management system and governing documents. In the company's business model, the shareholders of BioArctic are the ultimate decision makers regarding the Group's governance through their election of the company's Board of Directors at the Annual General Meeting. In turn, the Board is responsible for ensuring that corporate governance is in compliance with applicable laws as well as other external and internal governance documents.

Governance, management and control of BioArctic is divided among the shareholders through the Annual General Meeting, the Board of Directors, the CEO and the auditors in accordance with the Swedish Companies Act and the Articles of Association. Increased openness and transparency provide good insight into the company's activities, which contributes to effective governance.

GOVERNANCE MODEL

1. SHAREHOLDERS

BioArctic's class B share (BIOA B) has been listed on Nasdaq Stockholm Mid Cap since October 12, 2017. At December 31, 2019 the share capital in BioArctic amounted to SEK 1,761,199.70 divided into 14,399,996 series A-shares (10 votes per share) and 73,659,989 series B-shares (one vote per share), each with a quotient value of SEK 0.02.

According to ownership data from Monitor by Modular Finance, the number of shareholders at year-end was 9,435 (8,221) and the ten largest shareholders owned 92.2 percent of the votes and 80.6 percent of the capital in the company. Swedish owners represented 97.7 percent of the votes and 94.4 percent of the capital.

As of December 31, 2019 the following shareholders had a holding in BioArctic representing at least ten percent of the voting power of all shares in the company:

Shareholder	Share of votes in BioArctic:
Demban AB (controlled by Board member Lars Lannfelt)	50.1%
Ackelsta AB (controlled by board member Pär Gellerfors)	33.4%

For further information on BioArctic's share and ownership structure, see the BioArctic share section on pages 32–34 or visit www.bioarctic.com.

2. ANNUAL GENERAL MEETING (AGM)

The AGM is BioArctic's highest decision-making body and is held annually within six months of the end of the financial year. At the AGM, the balance sheet and income statement are presented, as well as the Group´s balance sheet and income statement, and resolutions are passed on such matters as appropriation of the company's earnings, election of and fees to Board members and auditors, and other matters submitted to the AGM in accordance with the law. All shareholders who are recorded in the share register and have reported their participation in time in accordance with the instructions in the notice to attend have the right to participate in the AGM and vote for their shares. A shareholder who wishes to have a particular matter addressed at the AGM must request this from the Board well in advance of the meeting via the address available on the company's website. BioArctic's Articles of Association contain no restrictions on how many votes each shareholder can cast at a general meeting. Nor do the Articles of Association contain any specific provisions relating to the appointment or dismissal of board members or the amending of the Articles of Association.

The 2019 AGM of BioArctic AB was held on May 9, 2019 at Grant Thornton Sweden AB, Sveavägen 20, Stockholm, Sweden.

Resolutions at the 2019 AGM included:

- a dividend for the Group for the 2018 financial year of SEK 1.50 per share, corresponding to approximately MSEK 132 or approximately 35 percent of the profit for the year
- the discharge of the Board members and CEO from liability for the 2018 financial year
- the re-election of Board members Wenche Rolfsen (chairman), Ivar Verner (deputy chairman), Hans Ekelund, Pär Gellefors, Lars Lannfelt, Mikael Smedeby and Eugen Steiner; the election of Ewa Björling as new Board member
- that total fees determined yearly, including fees for committee work, of SEK 2,410,000 are to be paid to the Board
- the appointment of Grant Thornton Sweden AB as the auditing company, with Mia Rutenius as auditor in charge
- approval of the establishment of a stock warrant program intended for the company's management, researchers and other staff, a proposal for a private placement of warrants, and the transfer of warrants or shares to participants in the employee warrant program
- the passing a resolution on the process for establishing a Nomination Committee and guidelines for the committee's work
- the adoption of guidelines for remuneration to senior executives

The minutes and other documentation from this general meeting are available on BioArctic's website, www.bioarctic.com.

2020 ANNUAL GENERAL MEETING

The 2020 Annual General Meeting will be held on May 7, 2020 at 5:00 p.m. at Lindhagen Konferens, Lindhagensgatan 126 in Stockholm, Sweden. Registration will begin at 4:30 p.m.

Shareholders registered in the share register maintained by Euroclear Sweden AB as of April 30, 2020 and who have reported their intent to participate in the meeting by 12:00 p.m. that same day have the right to participate in the AGM.

Important dates for the 2020 AGM:

- April 30 – record date for the 2020 AGM
- April 30 – final reporting date for participation in the AGM
- May 7 – admittance to the AGM begins, 4:30 p.m.
- May 7 – the AGM begins, 5:00 p.m.

3. NOMINATION COMMITTEE

The task of the Nomination Committee is to ensure that the members of the Board of Directors of BioArctic jointly possess the knowledge and experience that are relevant for enabling the satisfactory performance of the company over time. The Nomination Committee reviews the work of the Board based on the Board evaluation conducted once a year, which is a requirement under the Code, the phase and needs of the company and the views of the other owners. Subsequently, the Nomination Committee presents a proposal to the AGM regarding the number of Board members and the composition of the Board as well as proposals regarding fees to the Board of Directors, including fees for committee work. The Nomination Committee also presents proposals concerning the Chairman of the Board and the AGM, as well as the auditors and their remuneration. In the election of auditors, the Audit Committee assists the Nomination Committee in developing proposals. The proposals of the Nomination Committee are presented in the notice to attend the AGM, and a justification for the Nomination Committee's proposals is published on BioArctic's website.

According to the resolution at the AGM of BioArctic on May 9, 2019, the members of the Nomination Committee for the 2020 AGM shall be appointed following that the Chairman of the Board is contacting the three largest shareholders in terms of voting rights according to Euroclear Sweden AB's transcription of the share register as of September 30, 2019 and asking each of them to appoint a member of the Nomination Committee. In the event that any of the three largest shareholders does not wish to appoint a member of the Nomination Committee, further shareholders

should be contacted until the Nomination Committee consists of three members.

As of September 30, 2019 the three largest shareholders were Demban AB, Ackelsta AB and the Third Swedish National Pension Fund.

The Nomination Committee for the 2020 AGM consists of Margareta Öhrvall (Demban AB), Claes Andersson (Ackelsta AB) and Gunnar Blix (Third Swedish National Pension Fund). The Nomination Committee appoints a Chairman from among its members, and Gunnar Blix has been appointed. All shareholders have been given the opportunity to present proposals for Board members for further evaluation in the context of the Nomination Committee's work. The Nomination Committee has held 3 (3) meetings as well as informal contacts.

4. BOARD OF DIRECTORS

The Board's tasks and responsibilities

The Board of Directors is BioArctic's second highest decision-making body after the AGM. The Board has overall responsibility for the company's organization and the administration of BioArctic's operations, as well as for working to create long-term value for the shareholders and other stakeholders. Together with company management, the Board is responsible for the overall strategy as well as the company's financing and financial position, and works to ensure the company has proper risk management and internal control.

Board members

According to BioArctic's Articles of Association, the Board shall consist of no less than three and no more than eight members, with no deputies. The members, who are normally elected annually at the AGM for the period until the close of the next AGM, must provide competence and experience that benefit BioArctic's performance. At present, the Board consists of eight regular members with no deputies. Seven members were re-elected and one new member was elected at the AGM on May 9, 2019. CEO Gunilla Osswald and CFO Jan Mattsson are present at all Board meetings. Jan Mattsson serves as the secretary of the Board. Other senior executives participate as rapporteurs in connection with particular issues. Six of the eight Board members are independent in relation to both the company and its management, as well as the major shareholders. The company's two founders, Lars Lannfelt and Pär Gellerfors – who are also Board members and primary owners – cannot be considered independent in relation to the company, its management and major shareholders. Lars Lannfelt is employed by the company and is part of the company's management team. Moreover, there is a consultancy agreement between Per Gellerfors's company, Ackelsta AB, and BioArctic AB regarding support in contract issues and patents. Pär Gellerfors submitted invoices for market-based remuneration of MSEK 0.1 (–) during the year for consultancy services via Ackelsta AB. Furthermore, Pär Gellerfors is the CEO and a Board member of Swenora AB. Invoices for patent expenses of MSEK 0.2 (–) were submitted to Swenora AB during the year.

Until May 2019, Board member Mikael Smedeby worked as a lawyer and partner in Advokatfirman Lindahl KB, which provides routine business law advice to BioArctic. The fees invoiced totalled MSEK 0.6 (0.4).

BioArctic herewith meets the requirements from Nasdaq Stockholm and the Code regarding the independence of Board members. For a summary and presentation of the Board members, see pages 60–61.

Board tasks and Board evaluation

The work and tasks of the Board are governed by the Companies Act, BioArctic's Articles of Association and the Board of Directors' rules of procedure, which is revised annually and adopted at the inaugural Board meeting every year. The rules of procedure govern such aspects as Board functions, work tasks, the decision-making procedure within the company, the Board's meeting agenda, the Chairman's duties and the allocation of responsibilities between the Board and the CEO. The Board also establishes instructions for the Board's committees and the CEO.

The tasks of the Board are to continually monitor strategic orientation and financial performance as well as the company's routines, procedures and controls in order to maintain effectively functioning operations. The Board's tasks also include promoting good quality in financial reporting and internal control as well as evaluating established guidelines for senior executives. The Board is also responsible for continually evaluating the CEO of the company and acquainting itself with the annual audit conducted by Grant Thornton Sweden AB with Mia Rutenius as auditor in charge.

The Chairman, who is selected by the AGM, has the extra responsibility of governing and managing the work of the Board and of ensuring that the Board's work is properly organized and efficiently carried out, and that the Board fulfills its commitments in accordance with the Companies Act and the Board's rules of procedure. The Chairman shall also consult with the CEO on strategic matters and verify that the Board's decisions are implemented in an effective manner. The Chairman is responsible for contacts with the shareholders in ownership matters and for communicating the views of the owners to the Board. The Chairman is also responsible for conducting a Board evaluation in which all Board members evaluate their work over the preceding year. This evaluation also includes the work of the Audit, Remuneration, and Research Committees. The Board evaluation is presented to the Nomination Committee.

The Chairman plans the Board meetings together with the CEO of the company. The Board meets according to a meeting schedule that is established yearly. At each regular

Board meeting, an update on the operations and a financial follow-up is given. These reports are compiled by the CEO and the CFO. During the year, matters relating to the company's strategy, project portfolio, current and potential partners, organization and competence requirements were also discussed. The company's auditor participated in the meeting concerning the annual accounts, two Audit Committee meetings and the Board meeting concerning the company's internal control. In this manner, the Board and the auditor had the opportunity to discuss operations, accounting issues and audit work.

In 2019, the Board held 10 (12) meetings, one of which was an inaugural meeting in connection with the AGM on May 9, 2019. The minutes taken at these meetings record decisions that have been taken.

Remuneration to the Board

Fees and other remuneration to the Board members are established at the AGM. At the AGM on May 9, 2019, it was resolved that the total fees to Board members, including committee work, would be SEK 2,410,000 to be allocated as follows:

- Fees to Chairman of the Board Wenche Rolfsen would total SEK 500,000 and fees to Deputy Chairman Ivar Verner would total SEK 300,000
- For regular Board members not employed by the company (i.e. five members excluding Lars Lannfelt) the fees would total SEK 250,000 each
- Fees in the Audit Committee would total SEK 100,000 to the Chairman and SEK 60,000 to the other non-employed committee members
- Fees in the Remuneration Committee would total SEK 60,000 to the Chairman and SEK 40,000 to the other non-employed committee members
- No fees are paid to the Research Committee

5. AUDIT COMMITTEE

The primary task of the Audit Committee is to support the Board in its work of fulfilling its financial reporting responsibilities including accounting, audits, internal control, internal audits and risk management. The Audit Committee also routinely ensures contact with the company's auditor and stays informed and active in decisions concerning financial issues, risks, the company's annual report and internal control. The Audit Committee is also responsible for reviewing and evaluating the auditor's work. The Audit Committee works in accordance with instructions established by the Board of Directors. All meetings of the Audit Committee are minuted and the minutes are reported in connection with the meetings of the Board.

Audit Committee members, 2019–2020

- Ivar Verner (Chairman)
- Hans Ekelund (member)
- Eugen Steiner (member)

The Audit Committee met 5 (4) times. The company's auditor participated in two of these meetings.

6. REMUNERATION COMMITTEE

The primary task of the Remuneration Committee is to submit proposals to the Board regarding remuneration to the

Remuneration and attendance	Wenche Rolfsen	Ivar Verner	Ewa Björling [1)]	Hans Ekelund	Pär Gellerfors	Lars Lannfelt	Mikael Smedeby	Eugen Steiner
Board fees (meeting year)	500,000	300,000	250,000	250,000	250,000	-	250,000	250,000
Remuneration for committee work	60,000	100,000	-	100,000	-	-	-	100,000
Independent in relation to company and company management	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Independent in relation to primary owners	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Attendance, Board meetings (10)	10	10	7	10	10	10	8	10
Attendance, Audit Committee mtgs (5)	-	5	-	5	-	-	-	5
Attendance, Remuneration Committee mtgs (4)	4	-	-	4	-	-	-	4
Attendance, Research Committee mtgs (10)	-	-	-	-	-	10	-	-

[1)] Ewa Björling was elected to the Board of Directors at the AGM on May 9, 2019.

CEO and principles of remuneration and other conditions of employment for management as well as monitoring and evaluating variable remuneration and long-term incentive programs. The Audit Committee works in accordance with a formal work plan established by the Board of Directors. All meetings of the Audit Committee are minuted and the minutes are reported to the Board.

Remuneration Committee members, 2019–2020
- Wenche Rolfsen (Chairman)
- Hans Ekelund (member)
- Eugen Steiner (member)

The Audit Committee met 4 (4) times.

7. RESEARCH COMMITTEE

BioArctic's operations have a strong scientific focus with drug projects in both early and late phases. Accordingly, the company also has a Research Committee that focuses on addressing scientific issues. The Research Committee works according to rules of procedure adopted by the Board and has an advisory capacity in relation to the Board and the CEO. The Research Committee has one ordinary member and the Chief Scientific Officer (CSO) as a co-opted member. In addition, internal and external researchers can take part depending on the area being discussed. The role of the Research Committee is primarily to identify and evaluate research areas and disease indications where BioArctic can develop commercially successful products.

Research Committee members, 2019–2020
- Lars Lannfelt, Senior Vice President University Collaborations (Chairman)

The Research Committee met 10 (3) times. All meetings of the Research Committee are minuted and reported at Board meetings.

8. AUDITORS

The auditor is to review BioArctic's annual report and financial statements, as well as the administration of the company. After each financial year, the auditor will submit an Auditor's Report and a Group Auditor's Report to the AGM. The external audit of the financial statements is to be carried out in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. The auditor for BioArctic will be appointed by the AGM in accordance with proposals from the Nomination Committee.

The company's auditor, Grant Thornton Sweden AB, was first elected at the 2016 Annual General Meeting. The current term for the period is until the end of the 2020 Annual General Meeting, and Mia Rutenius is the auditor in charge. An authorized public accountant, Mia Rutenius is a member of FAR, the association of Swedish professional accountants. Grant Thornton Sweden AB may be responsible for the audit until 2027, or until 2037 if a new procurement is carried out after ten years, before a new auditor must be chosen in accordance with the rules in force. Authorized public accountant Mia Rutenius can be the auditor in charge until the 2024 AGM, when in accordance with regulations she will need to rotate her assignments. For information on remuneration to auditors, refer to Note 8 in the 2019 Annual Report.

9. MANAGEMENT

The senior management of BioArctic comprises the CEO and nine other persons. Five executives are men, and five are women. For a summary and presentation of the senior management, see pages 62–63.

Remuneration to the CEO

In 2019, BioArctic's CEO Gunilla Osswald received fixed compensation of SEK 210,000 per month. Gunilla Osswald furthermore had the right to pension provisions corresponding to 35 percent of the fixed compensation.

The CEO is included in the variable remuneration programs covering all employees in the company. In addition, the CEO has the right to non-pensionable variable remuneration amounting to a maximum of 35 percent of the total annual compensation.

The CEO also has a company car that is cost-neutral for the company.

Remuneration to senior management

"Senior executives" refers to the CEO and the management group, which consists of ten persons in total. The purpose of the guidelines concerning remuneration to senior executives is to provide BioArctic with the conditions for attracting, motivating and retaining competent managers. Remuneration is to be market-based and competitive and should reflect the performance and responsibilities of the individual as well as the company's financial performance. At the same time, the remuneration should be in line with shareholder interests. Remuneration is to consist of fixed and variable salary, the customary employment benefits and market-based pension.

Fixed and variable salary

The fixed salary must be competitive and based on the individual's competence, areas of responsibility and experience. The fixed salary must be reviewed annually. The division between fixed salary and variable remuneration must be in proportion to the executive's responsibility and authority.

Variable salary may consist of bonuses to senior executives in the form of cash, shares and/or share-based instruments in BioArctic AB. Variable salary can be paid but should not exceed an amount corresponding to six months' salary. The variable remuneration must be based on the outcome

of predetermined and measurable criteria and designed to achieve greater communal interest between the executive and the company's shareholders. The maximum variable, non-pensionable remuneration to the CEO can be 35 percent of the total fixed annual remuneration, and the maximum remuneration to the company's senior executives can be 25 percent of the total fixed annual remuneration.

An incentive program in addition to the variable bonus programs described above is presented below.

INCENTIVE PROGRAMS

BioArctic has a long-term incentive program (the 2019/2028 program) in the form of an employee stock warrant program intended for the company's senior executives, researchers and other staff. The program has a vesting period of 3–5 years. The purpose of the incentive program is to encourage broad share ownership among BioArctic's employees, facilitate recruitment, retain skilled employees and increase employee motivation and fulfillment of targets. The program, which is intended for 41 employees in total, includes a total of 1,000,000 employee stock warrants. Of these, 480,000 warrants have been awarded. To facilitate the delivery of shares under the program, the 2019 AGM resolved on a private placement of 1,000,000 warrants. If the maximum number (i.e. 1,000,000 warrants) are utilized, the dilution will total 1.1 percent of the share capital and 0.5 percent of the voting rights in the company. The vesting period or alternatively the time from entering into the agreement until a share is acquired must not be less than three years.

In addition to the long-term incentive program described above, BioArctic's two founders – and principal owners, Demban AB and Ackelsta AB (separately from the company) – issued call options to a total of twelve Board members and senior executives in the company, including the CEO, in 2017. In total, the program grants the right to the purchase of 366,795 shares of the principal owners' class B shares in BioArctic, of which 207,405 have been utilized. The exercise period (i.e. the period during which the call option can be utilized) runs through June 30, 2020 according to the option agreement. The exercise price for the call options is SEK 26.67 per share. In connection with the issue of the call options, the holders have paid to the principal owners a premium corresponding to the market value of the options using the Black & Scholes model. The options are freely transferable. However, under the agreement, the principal owners have the right to repurchase the call options if the holder terminates his/her employment or assignment in the company during the tenor of the call options.

REWARD PROGRAMS

BioArctic has two rewards programs linked to the clinical research program for drug candidates BAN2401 for Alzheimer's disease with Eisai and ABBV-0805 for Parkinson's disease with AbbVie. The reward program covers all permanent employees, including the CEO. Variable remuneration is paid when the company achieves certain goals linked to the clinical programs. Since the reward programs are linked to the clinical progress, the variable remuneration payments may occur irregularly in conjunction with the milestones being reached. One condition for receiving variable remuneration is that the employee has been permanently employed and that the employment has lasted for at least six months at the time when the milestone is reached and that the employee has not given notice at the time of the payment. The potential variable remuneration for the employee amounts to one month's salary. The variable remuneration is not pensionable.

Other benefits and pension

BioArctic offers its employees other staff benefits in accordance with local practices. Benefits of this kind can include, for example, occupational health services and health and wellness contributions.

Pension terms must be market-based in relation to the regulations in force for similar positions in the local market. The pensions must be defined contribution solutions.

Departures from the guidelines

The Board of Directors can depart from the guidelines described above, in accordance with an approved mandate from the 2019 AGM, if there are particular reasons that justify doing so. In the event the Board decides on a departure from the guidelines, it must explain the reason for doing so at the AGM immediately following. The outcome of the contracted potential variable remunerations that form the basis for the outcome of the 2018 financial year was paid in full during the 2019 financial year. In addition to the guidelines adopted and in accordance with the mandate issued by the AGM, the Board has utilized the possibility of departing from the adopted guidelines, as particular reasons were deemed to exist in 2019. The payments thus exceed the guidelines adopted at the AGM.

The Board was of the opinion that particular reasons existed for a departure from the guidelines concerning the remunerations paid in the 2019 financial year. The 2018 financial year was an exceptional one for BioArctic in many respects, which gave rise to the decision to depart from the guidelines. In May 2019, BioArctic received a significant milestone

payment when Eisai started the confirmatory Phase 3 study for BAN2401. In addition, positive results were achieved in the company's Parkinson's program in which BioArctic staff successfully delivered strong research results, with a very high level of quality and in less time than planned, such that the company's partner AbbVie exercised the option to sign an agreement on full licensing ahead of schedule. The license led to a milestone payment for the company that totalled approximately SEK 449 million. Efforts from the company's CEO and senior executives in 2018 were deemed by the Remuneration Committee to be extraordinary, which gave rise to a recommendation to BioArctic's Board of Directors regarding the payment of an extra bonus for the 2018 financial year. The bonus, which was paid out in 2019, totaled approximately SEK 6.2 million and meant that the company's CEO received an extra year's salary and that the company's management group received an extra three months' salary per person during the year. The other employees in the company received two extra months' salary.

In summary, variable remunerations were paid out in light of:

- the CEO and other senior executives fulfilling their individual performance targets in the 2018 financial year in accordance with the guidelines for the company's variable remuneration, as established by the AGM;
- the two variable rewards programs (the Alzheimer's project with Eisai regarding BAN2401 and the Parkinson's project with AbbVie regarding ABBV-0805, described on the preceding page under "Reward programs") reaching two important project milestones in 2018 each that were bonus-based, which meant that payments for four milestones were issued in the 2019 financial year. These remunerations, which are few in number, fluctuate over time. This means that payments do not occur in every financial year. The payments in 2019 for four milestones that occurred in 2018 should be considered an exceptional event outside of a normal outcome.
- the Board of Directors resolving in accordance with the explanation above to pay a bonus to the company's CEO, senior management and other employees for their exceptional efforts in the 2018 financial year. The entire bonus was paid out in the 2019 financial year.

In summarizing the outcome as regards the variable remunerations and bonuses paid out in 2019, it can be stated that the CEO and six of the management team's other members received variable remuneration exceeding the six-month salary cap adopted by the AGM. Gunilla Osswald, CEO of the company, received a bonus during the year corresponding to 19 months' salary and the other senior executives received bonuses of between eight and ten months' salary on average per individual.

Termination and severance pay

For the CEO, a notice period of twelve months is in effect in the event of termination of employment by BioArctic and six months in the event of notice of termination from the CEO. Upon termination by the company, there is no work obligation during the notice period, but the CEO must be available to the company as needed. Severance pay is not applied.

The other senior executives and all other employees have a contractual mutual termination period of three months.

BOARD PROPOSALS FOR NEW GUIDELINES FOR REMUNERATION TO SENIOR EXECUTIVES

Prior to the 2020 AGM, the Board of Directors of BioArctic will revise the principles for remuneration to senior executives in accordance with the new amending directive legislation. The proposal for the new guidelines will be presented well in advance of the 2020 AGM, in conjunction with the notice to attend.

Internal control of financial reporting

The goal of internal control is to assess which risks in BioArctic are significant for the company and should thus be routinely managed through monitoring and control. Using effective risk management, the work can concentrate on the areas that are most important for reducing the company's total risk exposure.

In accordance with the Companies Act and the Swedish Code of Corporate Governance (the Code), the Board is ultimately responsible for structuring the company's organization so that financial reporting, administration and operations are monitored and controlled in a satisfactory manner. The Board shall, among other things, ensure that BioArctic has proper internal control and formal procedures ensuring that established principles for financial reporting and internal control are observed and that there are adequate systems for monitoring and control of the company's operations and the risks associated with the company and its operations. This report has been prepared in accordance with the Annual Accounts Act and the Code. In accordance with Point 7.4 of the Code, this report is limited to addressing internal control as regards financial reporting.

The CEO of BioArctic is ultimately responsible for monitoring whether the work on the company's internal control is being carried out in accordance with the form decided on by the Board of Directors. BioArctic's finance division, under the management of the CFO, manages the Group's work as regards internal control concerning financial reporting. The overall purpose of the internal control is to ensure, to a reasonable degree, that the company's operating strategies, targets and defined risks are monitored and that the owners' investments are protected. Furthermore, the internal control shall ensure, with reasonable certainty, that external financial reporting is reliable and prepared in accordance with accepted accounting practices in Sweden, that applicable laws and regulations are followed, and that the requirements imposed on listed companies are complied with.

In order to maintain good internal control, the Board has adopted a number of governing documents (e.g. rules of procedure for the Board, instructions to the CEO, instructions for financial reporting, a financial policy and an information policy). The Board has assessed the need for a special audit function (internal audit) and has come to the conclusion that such a function is not currently justified in BioArctic considering the scope of the operations and the existing internal control structures. The Board annually reassesses the need for a separate internal audit function. During the financial year, however, the Audit Committee resolved to add an external review function to be performed by an external party. This external review function carried out its work in 2019 and will review the financial year in its entirety. It is the opinion of the Board that monitoring, documentation and review of the company's internal control will henceforth be strengthened by the establishment of an external review function, which will serve as a special review function.

Since its listing in 2017, BioArctic's internal control structure has been based on the Committee of Sponsoring Organizations of the Threadway Commission (COSO) model, the framework of which has been applied to the company's operations and conditions. Under the COSO model, internal control is reviewed and assessed in five main areas: *control environment, risk assessment*, *control activities*, *information and communication* and *monitoring*.

Control environment

The control environment constitutes the basis for internal control concerning financial reporting. Clearly defining and communicating decision-making paths, authority and responsibility in the organization – as well as making governing documents in the form of internal policies, handbooks, guidelines and manuals available – is important.

The Board of Directors of BioArctic has established a work procedure and rules of procedure for its work and the work on the Board committees. An important part of the work of the Board is preparing and approving a number of fundamental policies, guidelines and frameworks. These include the Board's rules of procedure, instructions to the CEO, a finance policy and an information policy. Governing documents for accounting and financial reporting are the areas of particular importance for ensuring complete and correct reporting and information disclosure. As a stage in strengthening its internal control, BioArctic has chosen to gather the governing documents together on the company's intranet. The financial handbook, which is an important governing document also available on the company's intranet, describes routines and procedures for the accounting function.

In addition to the above-described internal control, there is also internal, operation-specific control of data regarding research and development and quality control systems, including systematic monitoring and evaluation of the company's research and manufacturing work and products.

The Audit Committee routinely contributes to the work on increasing the quality of the company's internal controls through its work on monitoring and quality assurance of the company's financial reporting, continuous contacts with the company's external auditor, monitoring the effectiveness of the company's internal control concerning financial reporting, and reviewing and monitoring the auditor's impartiality and independence.

Work during the year
After extensive work during the year, BioArctic established and implemented 34 control points in the following three areas:
- the accounting function
- research projects in operations
- company-wide controls in Group-wide areas such as insurance, taxes, budgets, etc.

The procedure for implementing, monitoring and documenting the controls has been approved by the Audit Committee.

BioArctic also continued its work on further developing the company's policies and how policies are implemented and monitored internally. The development of a new intranet at BioArctic has simplified accessibility to adopted policies internally for employees, and thus facilitated information disclosure in the organization.

Risk assessment

BioArctic continually updates its risk analysis as regards assessing risks that could lead to errors in financial reporting. Based on the annual review, the Board makes decisions on which risks are essential to monitor in order to ensure proper internal control in financial reporting. BioArctic identifies a number of items in the financial report and in the administrative flows that are specifically relevant and routinely subject to testing. The financial risks are managed, assessed and reported centrally and to the Audit Committee, where they are prepared and reported to the Board of Directors.

Work during the year
BioArctic reviewed the procedure and the structure of the annual risk analysis regarding risks in the financial reporting environment. As described above under *Control environment – Work during the year*, the accounting function is one of three main areas in BioArctic's control environment and the procedure for how the identified control activities in the financial area are carried out and monitored was implemented during the year.

Control activities

The company's organization and procedures are designed to manage the risks that the Board deems to be essential for internal control of financial reporting. At BioArctic, the company's control structure consists of an organization with clear roles that facilitate an efficient and suitable allocation of responsibilities as well as specific control activities designed to detect, or prevent in advance, risks of errors in the reporting. Examples of control activities can include decision-making processes in connection with important decisions or investments, as well as routine monitoring and procedures as regards earnings analyses, payments, VAT and tax accounting, spot checks, reconciliation and reviews.

Work during the year
As described above, 34 control activities have been identified in three areas central to BioArctic: finance, research projects and company-wide central areas. Phase One (i.e. the work on identifying activities and implementing a procedure for how they are controlled and monitored) was implemented and completed during the year. Phase Two, which included tests and controls of the 34 control points identified, was performed on a rolling basis during the year. Tests and controls are conducted both internally by BioArctic staff and by an external party who reviews the work.

Additional information can be found on BioArctic's website:

- Articles of Association
- Corporate governance reports
- Information from previous AGMs
- Information on the Nomination Committee
- Information for the 2020 AGM
- Reports on the incentive programs
- The Board's evaluation of guidelines for remuneration to senior executives

Information and communication

Governing documents in the form of policies, financial handbooks, guidelines (and manuals, where they relate to financial reporting) are communicated primarily on the company intranet. The financial handbook is expanded as needed and routinely updated. Internal communication regarding financial reporting and monitoring essentially takes place in the accounting function. Issues related to financial reporting are also discussed at meetings where relevant working groups meet.

For communication with internal and external parties, there is an information policy that indicates the guidelines for how this communication is to take place. The purpose of the policy is to ensure that BioArctic complies correctly and completely with all its disclosure obligations. Internal communication is intended to keep employees routinely informed of what is happening in the company and to ensure that the company is working in accordance with its shared goals and corporate values. Active internal work, in which information is routinely communicated via the company intranet and in conjunction with joint staff meetings, is carried out to achieve the goal of having informed employees.

Monitoring

BioArctic's accounting function works in a joint finance and accounting system based on shared instructions and guidelines. The Board of Directors and senior management of BioArctic receives routine information on how operations are performing. The internal control work constitutes support for the Board and senior management in their work on assessing and evaluating material areas of risk in financial reporting in order to subsequently select initiatives and follow-up actions in the chosen areas.

Board of Directors

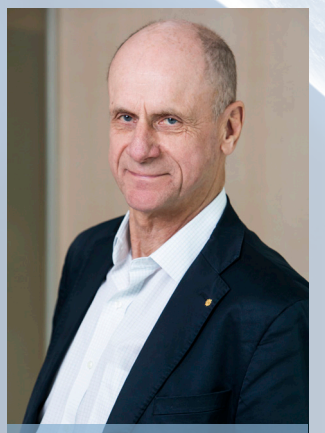

WENCHE ROLFSEN


IVAR VERNER


EWA BJÖRLING


HANS EKELUND


PÄR GELLERFORS


LARS LANNFELT


MIKAEL SMEDEBY


EUGEN STEINER

WENCHE ROLFSEN

Assignment and year elected
Chairman of the Board since 2017, Board member since 2016. Chairman of the Remuneration Committee.

Education
Pharmacist, Doctor of Pharmacy (pharmacognosy), Adjunct Professor at Uppsala University, Sweden

Other assignments
Chairman of InDex Pharmaceuticals Holding AB. Board member of Swedish Match AB and InDex Diagnostics AB; CEO and Board member of Rolfsen Consulting AB. Partner in Serendipity Partners.

Experience and prior assignments
Head of pharmacology at Pharmacia & Upjohn; VP clinical trials Quintiles Europe, CEO of Quintiles Scandinavia. Chairman of Aprea Therapeutics AB, Denator AB and Aprea Personal AB. Board member of SOBI AB, Recipharm AB, Smartfish AB, Moberg Pharma AB, TFS Trial Form Support International AB, Apotek Produktion & Laboratorier AB and Industrifonden.

Total holdings* and warrants
47,175 Class B shares
0 options

IVAR VERNER

Assignment and year elected
Deputy chairman since 2017, Board member since 2010. Chairman of the Audit Committee.

Education
Master of Business Administration, Stockholm School of Economics, Sweden.

Other assignments
Chairman of Erlandsons Brygga AB, Centrum Fastigheter i Norrtalje AB, Tegner & Son AB and Valsattra Exploaterings AB. Board member of Sehlhall Fastigheter AB.

Experience and prior assignments
Chairman of Rejlers AB, Welcome Hotel i Sverige AB, Constrera AB and Grant Thornton Sweden AB.
Board member of Forex Bank AB and Svenska Vardfastigheter AB.

Total holdings* and warrants
99,770 Class B shares, privately and through Förvaltningsaktiebolaget Kanalen AB
0 options

EWA BJÖRLING

Assignment and year elected
Board member since 2019.

Education
Licensed dentist, MD and associate professor from Karolinska Institutet, Stockholm, Sweden.

Other assignments
Chairman of the Board of the Swedish Petroleum and Biofuel Institute (SPBI). Board member of Essity AB, Biogaia AB and Mobilaris AB.

Experience and prior assignments
Member of Riksdag; Minister for Trade 2007–2014, Minister for Nordic Cooperation 2010–2014. Former associate professor at Karolinska Institutet, Stockholm, Sweden.

Total holdings* and warrants
0 shares
0 options

HANS EKELUND

Assignment and year elected
Board member since 2014. Member of the Audit Committee and the Remuneration Committee.

Education
Master of Business Administration, Stockholm School of Economics, Sweden.

Other assignments
Chairman of Connect Öst (non-profit organization) and board member of Ekarna Invest AB.

Experience and prior assignments
Former CFO of Ratos and several assignments as Board member.

Total holdings* and warrants
69,770 Class B shares through Ekarna Invest AB
0 options

PÄR GELLERFORS

Assignment and year elected
Board member since 2003. Former CEO. Founder of BioArctic together with Lars Lannfelt.

Education
Bachelor degree in chemistry; PhD in chemistry; Associate Professor of Biochemistry. All at Stockholm University, Sweden.

Other assignments
CEO and Board member of Swenora Biotech AB. Board member of Ackelsta AB, LPB Sweden AB and Sigrid Therapeutics AB.

Experience and prior assignments
CEO and board member of SpineMedical Sverige AB and SpineMedical AB. Board member of LPB Sweden Holding AB.

Total holdings* and warrants
5,759,988 Class A shares through Ackelsta AB
15,150,036 Class B shares through Ackelsta AB
0 options

LARS LANNFELT

Assignment and year elected
Board member since 2003. Chairman of the Board, 2003–2017. Chairman of the Research Committee. Founder of BioArctic with Pär Gellerfors.

Education
Medical degree (specialist in psychiatry) and doctoral thesis at Karolinska Institutet, Stockholm, Sweden; Associate Professor of Neurogenetics at Karolinska Institutet, specialist in geriatrics.

Other assignments
Board member of Demban AB and LPB Sweden AB.

Experience and prior assignments
Professor of Geriatrics at Uppsala University; Senior Professor at Uppsala University and member of the Royal Swedish Academy of Sciences. Founder of BioArctic in 2003, Chairman of the Board and a number of assignments and roles in the company.

Total holdings* and warrants
8,639,998 Class A shares through Demban AB.
22,723,707 Class B shares through Demban AB.
0 options

MIKAEL SMEDEBY

Assignment and year elected
Board member since 2018.

Education
Master of Laws, Uppsala University, Sweden.

Other assignments
Chairman of the Board of Coeli Holding AB and Sallengruppen AB (including subsidiaries). Board member of Smedeby Förvaltning AB.

Experience and prior assignments
General Counsel, Structures Freemont SA. Active as a lawyer since 1994; with Advokatfirman Lindahl, 1997–2019. Member of the Swedish Bar Association, 1999–2019. Executive positions at Advokatfirman Lindahl, including Managing Partner and Chairman of the Board. Member of the Board of Directors of BioArctic, 2014–2017. Special experience in corporate law, mergers and acquisitions, financing and licensing.

Total holdings* and warrants
10,000 Class B shares
Call options granting acquisition rights to 27,270 Class B shares (program issued by founders)

EUGEN STEINER

Assignment and year elected
Board member since 2017. Member of the Audit Committee and the Remuneration Committee.

Education
Medical doctor, Ph.D. in clinical pharmacology at Karolinska Institutet, Stockholm, Sweden.

Other assignments
Chairman of the Board of Spago Nanomedical AB and Empros Pharma AB. Board member of Apotek Produktion & Laboratorier AB, Inbox Capital AB, Karolinska Institutet Holding AB, Stiftelsen Forska!Sverige and Stockholm School of Entrepreneurship. Partner in HealthCap.

Experience and prior assignments
CEO or acting Chairman of the Board in several life science companies in Sweden, Norway and the US for more than 30 years, most recently as CEO of Glionova AB. CEO and Chairman of the Board of NVC Holdings AB.

Total holdings* and warrants
67,270 Class B shares
0 options

* Pertains to own holdings, related party holdings, holdings in companies and in capital insurance

Management


GUNILLA OSSWALD


GUNILLA ANDERSSON


HANS BASUN


JOHANNA FÄLTING


LARS LANNFELT


CHRISTINE LIND


JAN MATTSSON


MIKAEL MOGE


CHRISTER MÖLLER


NORA SJÖDIN

GUNILLA OSSWALD

Position and role
CEO since 2014. Employed at the company since 2013.

Education
Pharmacist; Ph.D. in biopharmacy and pharmacokinetics at Uppsala University, Sweden.

Other assignments
Board member of PledPharma AB and SpineMedical AB.

Experience and prior assignments
More than 30 years of experience in drug development. Executive positions at Astra/AstraZeneca, including Vice President responsible for the product portfolio in neurodegenerative diseases. Board member of SP Process Development AB, SpineMedical Sverige AB and LPB Sweden Holding AB

Total holdings* and warrants
33,800 Class B shares.
Call options granting acquisition rights to 66,270 Class B shares (program issued by founders)
Warrants granting acquisition rights to 100,000 Class B shares (2019/2028 program)

GUNILLA ANDERSSON

Position and role
Senior Director HR. Employed since 2019. Contracted since 2014.

Education
B.Sc. Human Resource Development and Labor Relations with a specialization in labor rights from Lund University, Sweden.

Other assignments
Manages her own consulting company focusing on HR, leadership and recruitment.

Experience and prior assignments
30 years of experience as HR consultant and HR manager in educational organizations and pharma companies such as Pharmacia and Novartis.

Total holdings* and warrants
0 shares
Warrants granting acquisition rights to 20,000 Class B shares (2019/2028 program)

HANS BASUN

Position and role***
Vice President Clinical Development, Chief Medical Officer. Employed at the company since 2007.

Education
Medical degree and residency in psychiatry and geriatrics from Karolinska Institutet, Stockholm, Sweden; Associate Professor at Karolinska Institutet and Adjunct Professor at Uppsala University, Sweden.

Other assignments
Member of the advisory board of Alzheimerfonden (the Swedish Alzheimer's Foundation) and Stiftelsen Dementia (the Swedish Dementia Foundation); Board member of MultiPark, Lund University.

Experience and prior assignments
More than 20 years of experience in the pharma industry, in leading positions in clinical research at Astra Arcus/AstraZeneca. Background as Chief Physcician at Huddinge University Hospital and Uppsala University Hospital, Sweden

Total holdings* and warrants
48,093 Class B shares
Warrants granting acquisition rights to 20,000 Class B shares (2019/2028 program)

JOHANNA FÄLTING

Position and role
Vice President Translational Science & Pharmacology. Employed at the company since 2012, in her current role since 2018.

Education
Ph.D. in Physiology, Stockholm University; Licentiate degree in physiology, Stockholm University; Master's degree in biology, Stockholm University, Sweden.

Other assignments
-

Experience and prior assignments
19 years of experience in neuroscience/pharmacology, drug research, translational science and development in the global pharma and biotech industry.

Total holdings* and warrants
24,135 Class B shares.
Call options granting acquisition rights to 14,220 Class B shares (program issued by founders)
Warrants granting acquisition rights to 20,000 Class B shares (2019/2028 program)

LARS LANNFELT

Position and role
Senior Vice President University Collaborations. Founder of BioArctic in 2003.

Education
Medical degree (specialist in psychiatry) and doctoral thesis at Karolinska Institutet, Stockholm, Sweden; Associate Professor of Neurogenetics at Karolinska Institutet, specialist in geriatrics.

Other assignments
Board member of Demban AB and LPB Sweden AB.

Experience and prior assignments
More than 35 years of experience in research into Alzheimer's disease and other neurodegenerative diseases. Professor of Geriatrics at Uppsala University; Senior Professor at Uppsala University and member of the Royal Swedish Academy of Sciences. Founder of BioArctic in 2003, Chairman of the Board and a number of assignments and roles in the company.

Total holdings* and warrants
8,639,998 Class A shares through Demban AB.
22,723,707 Class B shares through Demban AB.
0 warrants

CHRISTINE LIND

Assignment and role**
Strategy Advisor and acting Head of Investor Relations and Communications since 2019.

Education
B.Sc. in Finance and Information Systems from New York University, and an MBA in Finance and Management from Columbia Business School.

Other assignments
Chairman of the Board and CEO of Lind Growth Strategy AB. Board member of Xspray AB.

Experience and prior assignments
EVP Strategic Business Development as well as CEO of Medivir AB. Vice President Business Development, LifeCell Corporation. Worked in investment banking for twelve years, at Merrill Lynch & Co. and Gerard Klauer Mattison & Co., focusing on strategic advisory services and raising of capital for biotech and pharma companies.

Total holdings* and warrants
2,000 Class B shares

JAN MATTSSON

Position and role
Vice President Finance, Chief Financial Officer. Employed at the company since 2017.

Education
MBA from Örebro University.

Other assignments
-

Experience and prior assignments
More than 30 years of experience in business and administration, including CFO at Sefina Finance AB, Allenex AB, Argnor Wireless Ventures AB, Logitall AB and Investment AB Kinnevik. Board member of Sefina Svensk Pantbelaning AB and Humidus AB.

Total holdings* and warrants
33,000 Class B shares, privately and through Almsäter Interim Management AB
Call options granting acquisition rights to 9,270 Class B shares (program issued by founders)
Warrants granting acquisition rights to 20,000 Class B shares (2019/2028 program)

MIKAEL MOGE

Position and role
Vice President Chemistry, Manufacturing & Control and Protein Chemistry. Employed at the company since 2012, in his current role since 2018.

Education
Master of Engineering chemical engineering, KTH Royal Institute of Technology; Ph.D. in organic chemistry, KTH; Stockholm, Sweden.

Other assignments
-

Experience and prior assignments
22 years of experience in drug development and 18 years of experience as R&D director in process development and GMP manufacturing. Former section manager in Process R&D at AstraZeneca.

Total holdings* and warrants
0 shares
Call options granting acquisition rights to 6,825 Class B shares (program issued by founders)
Warrants granting acquisition rights to 20,000 Class B shares (2019/2028 program)

CHRISTER MÖLLER

Position and role
Vice President Pre-Clinical Development, Chief Scientific Officer. Employed at the company since 2006.

Education
B.Sc. in Biology, Stockholm University, Sweden; Ph.D. in Medical Science, Karolinska Institutet, Stockholm, Sweden.

Other assignments
-

Experience and prior assignments
21 years of experience in developing protein drugs from idea to clinical trials including leading positions at small biotech/pharma companies such as Zymenex A/S. In addition, comprehensive academic experience in pursuing research projects concerning growth factors and preclinical research in diabetes.

Total holdings* and warrants
35,505 Class B shares
Call options granting acquisition rights to 8,265 Class B shares (program issued by founders)
Warrants granting acquisition rights to 20,000 Class B shares (2019/2028 program)

NORA SJÖDIN

Position and role
Vice President Regulatory Affairs. Employed at the company since 2017.

Education
Licensed nurse. B.Sc.

Other assignments
-

Prior assignments
26 years of experience in leading positions with global regulatory affairs, from early development phases to products in the market, at companies such as AstraZeneca, NDA Regulatory Service and Pharmalink.

Total holdings* and warrants
2,000 Class B shares
Warrants granting acquisition rights to 20,000 Class B shares (2019/2028 program)

NEW IN MANAGEMENT

- Tomas Odergren, Chief Medical Officer, part of management since January 1, 2020
- Oskar Bosson, VP Communication & IR part of management as of May 2020

* Includes holdings by self, closely associated persons, controlled companies or otherwise controlled.
** Consultant since November 1, 2019.
*** Left the management group on December 31, 2019.

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Consolidated income statement

Amounts in kSEK	Note	2019	2018
Net revenue	5	281,772	713,970
Other operating income	6	14,826	16,259
Operating income		**296,598**	**730,229**
Project expenses		-72,422	-145,357
Other external expenses	8.9	-31,169	-31,949
Personnel expenses	7	-59,715	-57,039
Depreciations of tangible assets	14	-9,199	-2,059
Other operating expenses	10	-11,554	-5,031
Operating profit		**112,538**	**488,794**
Financial income	11	1,630	2,171
Financial expenses	11	-1,192	-1,371
Profit after financial items		**112,976**	**489,593**
Tax	12	-24,507	-107,991
Profit for the year		**88,468**	**381,602**
Profit for the year attributable to owners of the Parent Company		88,468	381,602
Earnings per share			
Basic earnings per share	13	1.00	4.33
Diluted earnings per share	13	1.00	4.33

Consolidated statement of comprehensive income

Amounts in kSEK	Note	2019	2018
Profit for the year		88,468	381,602
Other comprehensive income		-	-
Comprehensive income for the year attributable to owners of the Parent Company		**88,468**	**381,602**

Consolidated balance sheet

Amounts in kSEK	Note	December 31, 2019	December 31, 2018
ASSETS			
Tangible assets	14	9,590	9,289
Right-of-use assets	14	27,544	-
Deferred tax assets	12	298	189
Other non-current financial assets	16	1,511	1,500
Total non-current assets		**38,943**	**10,978**
Trade receivables		188	-
Other current receivables	17, 18	18,482	3,904
Prepaid expenses and accrued income	19	12,950	460,853
Cash and cash equivalents	17, 20	1,112,770	917,307
Total current assets		**1,144,389**	**1,382,064**
TOTAL ASSETS		**1,183,332**	**1,393,042**
EQUITY AND LIABILITIES			
Share capital	21	1,761	1,761
Reserves		958	958
Other contributed capital		560,018	560,018
Retained earnings		411,760	454,999
Total equity		**974,497**	**1,017,736**
Deferred tax liabilities	12	38,685	32,520
Non-current lease liabilities	24	20,927	-
Total non-current liabilities		**59,613**	**32,520**
Current lease liabilities	24	6,439	-
Accounts payable	17	8,218	14,808
Current tax liabilities	12	10,871	73,339
Other current liabilities		3,576	3,849
Accrued expenses and prepaid income	17, 25	120,119	250,791
Total current liabilities		**149,222**	**342,787**
TOTAL EQUITY AND LIABILITIES		**1,183,332**	**1,393,042**

Consolidated statement of change in equity

Amounts in kSEK	Note	Share capital	Reserves	Other contributed capital	Retained earnings incl. profit for the year	Total equity
Opening balance at January 1, 2018		**1,761**	**958**	**560,018**	**73,397**	**636,134**
Profit for the year		-	-	-	381,602	381,602
Other comprehensive income		-	-	-	-	0
Consolidated comprehensive income		**1,761**	**958**	**560,018**	**454,999**	**1,017,736**
Closing balance at December 31, 2018		**1,761**	**958**	**560,018**	**454,999**	**1,017,736**
Opening balance at January 1, 2019		**1,761**	**958**	**560,018**	**454,999**	**1,017,736**
Profit for the year		-	-	-	88,468	88,468
Other comprehensive income		-	-	-	-	0
Consolidated comprehensive income		**1,761**	**958**	**560,018**	**543,467**	**1,106,204**
Dividends paid		-	-	-	-132,090	-132,090
Share-based payments		-	-	-	383	383
Closing balance at December 31, 2019		**1,761**	**958**	**560,018**	**411,760**	**974,497**

Consolidated cash flow statement

Amounts in kSEK	Note	2019	2018
Operating profit		112,538	488,794
Adjustment for non-cash items	27	-107,485	-726,886
Interest received		253	40
Interest paid		-1,010	-1,371
Income tax paid		-80,919	-10,889
Cash flow from operating activities before change in working capital		**-76,622**	**-250,313**
Increase (-) / Decrease (+) in operating receivables		433,138	3,911
Increase (+) / Decrease (-) in operating liabilities		-29,352	46,345
Cash flow from operating activities		**327,165**	**-200,057**
Investments in tangible assets	14	-3,262	-4,255
Change in non-current financial assets		-11	1,175
Cash flow from investing activities		**-3,273**	**-3,080**
Amortization of liability		-6,416	-
Dividend		-132,090	-
Cash flow from financing activities		**-138,506**	**-**
Cash flow for the year		**185,385**	**-203,136**
Cash and cash equivalents at January 1		917,307	1,110,367
Exchange rate differences in cash and cash equivalents		10,077	10,076
Cash and cash equivalents at December 31	20	**1,112,770**	**917,307**

Parent Company income statement

Amounts in kSEK	Note	2019	2018
Operating income, etc.			
Net revenue	5	281,772	713,970
Other operating income	6	14,826	16,259
Operating income		**296,598**	**730,229**
Operating expenses			
Project expenses		-72,422	-145,357
Other external expenses	8, 9	-38,265	-31,949
Personnel expenses	7	-59,715	-57,039
Depreciations of tangible assets	14	-2,961	-2,059
Other operating expenses	10	-11,554	-5,031
Operating profit		**111,681**	**488,794**
Profit from financial items			
Financial income	11	1,630	2,171
Financial expenses	11	-110	-1,371
Profit after financial items		**113,200**	**489,594**
Appropriations			
Change in tax allocation reserve		-28,700	-122,603
Change in accelerated depreciation		-157	-273
Profit before tax		**84,344**	**366,718**
Income tax	12	-18,390	-80,959
Profit for the year		**65,954**	**285,759**

There are no items in the Parent Company recognized as other comprehensive income, thus comprehensive income conforms to profit for the year.

Parent Company balance sheet

Amounts in kSEK	Note	December 31, 2019	December 31, 2018
ASSETS			
Non-current assets			
Tangible assets			
Leasehold improvements	14	1,120	993
Equipment	14	8,471	8,296
		9,590	**9,289**
Financial assets			
Shares in subsidiaries	15	100	100
Other non-current financial assets	16	1,511	1,500
Deferred tax assets	12	250	189
		1,860	**1,789**
Total non-current assets		**11,451**	**11,078**
Current assets			
Short-term receivables			
Trade receivables	17	188	-
Other current receivables	17, 18	18,482	3,904
Prepaid expenses and accrued income	19	12,950	460,853
		31,619	**464,757**
Cash and cash equivalents	20	**1,112,672**	**917,209**
Total current assets		**1,144,291**	**1,381,967**
TOTAL ASSETS		**1,155,742**	**1,393,044**

Parent Company balance sheet *cont.*

Amounts in kSEK	Note	December 31, 2019	December 31, 2018
EQUITY AND LIABILITIES			
Equity			
Restricted equity			
Share capital	21	1,761	1,761
Statutory reserve		958	958
		2,719	**2,719**
Non-restricted equity			
Share premium reserve	22	560,018	560,018
Retained earnings	22	207,996	53,944
Profit for the year	22	65,954	285,759
		833,968	**899,722**
Total equity		**836,687**	**902,441**
Untaxed reserves	23	**176,674**	**147,817**
Current liabilities			
Accounts payable		8,218	14,808
Current tax liabilities	12	10,871	73,339
Other current liabilities		3,356	3,849
Accrued expenses and prepaid income	25	119,936	250,791
Total current liabilities		**142,381**	**342,787**
TOTAL EQUITY AND LIABILITIES		**1,155,742**	**1,393,044**

Parent Company statement of change in equity

		Restricted equity		Non-restricted equity		
Amounts in kSEK	**Note**	**Share capital**	**Statutory reserve**	**Share premium reserve**	**Retained earnings**	**Total equity**
Opening balance at January 1, 2018		**1,761**	**958**	**560,018**	**53,944**	**616,682**
Comprehensive income						
Profit for the year		-	-	-	285,759	285,759
Total comprehensive income		**0**	**0**	**0**	**285,759**	**285,759**
Transactions with shareholders						
Total transactions with shareholders		**0**	**0**	**0**	**0**	**0**
Closing balance at December 31, 2018		**1,761**	**958**	**560,018**	**339,704**	**902,441**
Opening balance at January 1, 2019		**1,761**	**958**	**560,018**	**339,704**	**902,441**
Comprehensive income						
Profit for the year		-	-	-	65,954	65,954
Total comprehensive income		**0**	**0**	**0**	**65,954**	**65,954**
Transactions with shareholders						
Dividends paid		-	-	-	-132,090	-132,090
Share-based payments		-	-	-	383	383
Total transactions with shareholders		**0**	**0**	**0**	**-131,707**	**-131,707**
Closing balance at December 31, 2019		**1,761**	**958**	**560,018**	**273,950**	**836,687**

Parent Company cash flow statement

Amounts in kSEK	Note	2019	2018
Operating profit		111,681	488,794
Adjustment for non-cash items	27	-113,723	-726,886
Interest received		253	40
Interest paid		-110	-1,371
Income tax paid		-80,919	-10,889
Cash flow from operating activities before change in working capital		**-82,818**	**-250,312**
Increase (-) / Decrease (+) in operating receivables		433,138	3,911
Increase (+) / Decrease (-) in operating liabilities		-29,572	46,345
Cash flow from operating activities		**320,748**	**-200,056**
Investments in tangible assets	14	-3,262	-4,255
Change in non-current financial assets		-11	1,175
Cash flow from investing activities		**-3,273**	**-3,080**
Dividend		-132,090	-
Cash flow from financing activities		**-132,090**	**-**
Cash flow for the year		**185,385**	**-203,136**
Cash and cash equivalents at January 1		917,210	1,110,269
Exchange rate differences in cash and cash equivalents		10,077	10,076
Cash and cash equivalents at December 31	20	**1,112,672**	**917,210**

Notes to the financial statements

NOTE 1 General information

BioArctic AB (publ), corporate identity number 556601-2679, is the Parent Company in a Group focused on disorders of the central nervous system (CNS). The company has leading competence in research and development of innovative biological drugs, such as antibodies, that address high unmet medical needs.

The Group's business is conducted in the Parent Company. BioArctic is a limited liability company with its registered office at Warfvinges väg 35, SE-112 51 Stockholm, Sweden.

The annual accounts and consolidated financial statements were approved by the Board of Directors on March 31, 2020 and have been submitted for ratification at the Annual General Meeting on May 7, 2020.

NOTE 2 Summary of significant accounting principles

The main accounting principles applied in the preparation of these consolidated financial statements are set out below. These principles have been consistently applied to all the years presented, unless otherwise stated.

BASIS OF PREPARATION

The consolidated financial statements have been prepared in accordance with the Swedish Annual Accounts Act, RFR 1 Supplementary accounting rules for groups, the International Financial Reporting Standards (IFRS) and IFRIC interpretations as adopted by the EU at December 31, 2019. The income statement is classified according to nature of expenses.

The Group's financial statements have been prepared based on historical costs, which means that assets and liabilities are recognized at these values and, where appropriate, certain financial instruments are measured at fair value. The functional currency of the Parent Company, including all its subsidiaries, and the reporting currency of the Group is the Swedish kronor (SEK). All amounts are indicated in thousands of Swedish kronor (kSEK) unless otherwise indicated. Amounts in parentheses refer to the previous year. Negative figures are either expenses or payments (cash flow).

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. Furthermore, the Board of Directors and company management are required to make certain assessments in applying the company's accounting principles. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in note 4.

NEW ACCOUNTING PRINCIPLES

IFRS 16 supersedes IAS 17 Leases and the associated interpretations IFRIC 4, SIC-15 and SIC-27. The standard requires recognition of assets and liabilities attributable to all leases, with a few exceptions, in the balance sheet. This reporting is based on the view that an asset is used during a specific period of time while an obligation to pay for this right simultaneously arises. BioArctic has chosen to apply the modified retrospective approach. The effect of the application of IFRS 16 means that BioArctic recognizes a right-of-use asset and a lease liability for office premises and parking lots that were previously recognized as operating leases. The company has chosen to apply the relief rules concerning short-term and low-value leases. An incremental borrowing rate of 4 percent was used in the transition to IFRS 16 Leases, and the effects of the transition are shown below:

Amounts in kSEK	Closing balance, Dec. 31, 2018 (IAS 17)	Application of IFRS 16	Opening balance, Jan 1, 2019 (IFRS 16)
ASSETS			
Tangible assets	9,289	33,336	42,624
TOTAL ASSETS	**1,393,042**	**33,336**	**1,426,378**
EQUITY AND LIABILITIES			
Non-current lease liabilities	-	27,186	27,186
Current lease liabilities	-	6,149	6,149
TOTAL EQUITY AND LIABILITIES	**1,393,042**	**33,336**	**1,426,378**

The table includes only items impacted by the transition to IFRS 16

Reconciliation of lease liabilities under IFRS 16 against future minimum lease payments is shown below.

Amounts in kSEK	
Operating lease commitments at December 31, 2018	**33,981**
Discounted in accordance with the Group's incremental borrowing rate of 4.0%	-3,242
Adjustment regarding extension warrants or cancellation clauses	2,597
Recognized lease liability at January 1, 2019	**33,336**

NEW IFRS FROM 2020 ONWARD

A number of new standards and changes to interpretations and existing standards enter force for financial years beginning after January 1, 2020, which were not applied in advance in preparing the Group's financial statements. New and amended standards with future application are deemed to have no material effect on the Group's financial statements.

CONSOLIDATION

Subsidiaries are all companies over which the Group has a controlling interest. The Group controls a company when the Group is exposed to, or has rights to, variable returns from its holdings in the company and has the ability to influence those returns through its power in the company. Subsidiaries are included in the consolidated financial statements as of the date controlling interest was transferred to the Group. They are deconsolidated from the date that control ceases.

The Group applies the acquisition method to account for business combinations. The purchase price for the acquisition of a subsidiary comprises the fair value of the assets transferred, liabilities incurred to the former owners of the company acquired and the shares issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Acquisition costs are expensed as they are incurred.

Inter-company transactions, balances and unrealized gains on transactions between Group companies are eliminated. Gains and losses resulting from inter-company transactions and which are recognized among assets are also eliminated. The accounting principles for subsidiaries have been changed where necessary to ensure consistent application of Group principles.

SEGMENT REPORTING

An operating segment is a part of the Group that conducts operations from which revenue can be generated and incurs costs, and for which independent financial information is available.

The highest executive decision-maker in the Group monitors operations at the aggregate level, which means the operations constitute the same segment and no separate segment information is therefore presented. The Board of Directors has been identified as the highest executive decision-maker in the Group.

FOREIGN CURRENCY TRANSLATION

Functional and reporting currency

Items included in the financial statements for the different units in the Group are measured in the currency used in the financial environment where the respective companies primarily operate (functional currency). The consolidated financial statements use Swedish kronor (SEK), which is the Parent Company's functional and reporting currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year-end exchange rates are generally recognized in profit or loss.

REVENUE

The Group's revenue consists primarily of revenue from licensing and collaboration agreements. In assessing whether revenue is to be recognized, the Group follows a five-step process:

1. Identify the agreement with the customer
2. Identify the performance obligations
3. Establish the transaction price
4. Allocate the transaction price to the performance obligations
5. Recognize the revenue at the point in time the performance obligation is fulfilled

Licensing and collaboration agreements

Revenue from licensing and collaboration agreements can consist of remuneration from research agreements, milestone payments, non-recurring and licensing remuneration and royalties. In addition, BioArctic may have contractual rights to remuneration for costs incurred. The transaction price is established based on what the Group expects to receive from each agreement in exchange for transfer of the goods or services agreed on. The revenue is recognized either at a given point in time or over time when (or if) the Group fulfills its performance obligations by transferring the goods or services promised to the customer.

The Group recognizes a contract liability when it has received the payment obtained regarding its unfulfilled performance obligations and recognizes these amounts as deferred income in the balance sheet. In the same way, if the Group fulfills a performance obligation before compensation is received, it recognizes either accrued income or a receivable in the balance sheet, depending on if any aspect other than time determines when remuneration falls due.

Note 2, cont.

Research collaborations (remuneration from research agreements)
Revenue recognition reflects earnings under the specific terms of the agreement and is applied individually to each transaction. The revenue is recognized over time based on the fulfillment of the performance obligations. The Group measures the course of events toward complete fulfillment by continually evaluating the degree of completion based on costs incurred in the research collaborations.

Milestone payments
The performance obligations for milestones achieved are recognized as revenue at a given point in time. Revenue for milestone payments consists of a transaction price agreed on in advance.

Non-recurring and licensing remuneration
Non-recurring remuneration upon signing of an agreement is normally without a repayment obligation and is recognized at a given point in time. It normally pertains to the right to develop, register, market and sell BioArctic's patented products within a given geographical area and within a given indication. Non-recurring remuneration can also consist of remuneration for technology or transfer of knowledge to the partner, or consist of remuneration for the right to acquire a license in the future.

Royalty income
Royalty income normally arises continually when distributors recognize sales. This recognition occurs in the same period as the sales.

Remuneration for costs incurred and sale of products
Remuneration for costs incurred (i.e. costs invoiced onward to the customer) is recognized in the period when it arises. Revenue from sales of products is recognized at the point in time when control transfers to the customer.

Other operating income
In addition to government grants, the Group also has other operating income in the form of operational foreign exchange gains and gains from the divestment of tangible assets.

GOVERNMENT GRANTS
The Group's government grants are recognized as other operating income.

Government grants
Revenue from government grants is recognized as revenue when it is reasonably certain that the Group will fulfill the conditions associated with the grant, and the government grant will be received. Grants received before the terms for recognizing it as revenue are fulfilled are recognized as liabilities.

Joint agreements
BioArctic has received government grants for one joint agreement: the EU Horizon 2020 project, in which BioArctic is a the coordinator. The Group has recognized its share of revenue under this agreement in the income statement. The portion of the government grant for Horizon 2020 that has been received but is to be passed on to other legal entities is recognized as a liability up until payment occurs.

EXPENSES, FINANCIAL ITEMS AND TAXES
Project expenses
Project expenses pertain to direct external costs for BioArctic's research and drug development in preclinical and clinical studies as well as regulatory activities. Costs attributable to development projects are recognized as intangible assets when all the following criteria are met:

1. It is technically feasible for the company to complete the intangible asset so that it will be available for use or sale.
2. The company intends to complete the intangible asset and use or sell it.
3. The company has the potential to use or sell the intangible asset.
4. The company can demonstrate how the intangible asset will generate probable economic benefits.
5. There are adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
6. The company can reliably estimate the expenditures attributable to the intangible asset during its development.

Development costs that have been expensed cannot be recognized as an asset in subsequent periods. BioArctic has no expenditures that fulfill all the criteria, and all research and development costs have therefore been expensed.

Other external expenses
Operating expenses that do not belong to project expenses and pertain primarily to costs for offices and external services are recognized as other external expenses.

Remuneration to employees
Contractual remuneration
BioArctic has a rewards program that covers all permanent employees, which means there is a variable remuneration component that can be paid out in conjunction with the fulfillment of targets in addition to the fixed remuneration. Refer to the information provided in Note 7. The variable remuneration is not pensionable. BioArctic has no agreements covering post-employment benefits.

Defined-contribution pension plans
The Group's pension plans are defined-contribution, and pertain to the contributions the company pays to the plan

or to the insurance company and the return on capital the contributions generate. Consequently, the employee bears the actual risk (that the payment will be lower than expected) and the investment risk (that the assets invested will be insufficient to generate the expected payments). The Group has no defined-benefit pension plans.

Share-based remuneration
BioArctic has a share-based remuneration program, settled in the form of equity instruments, for its employees. The program runs over 5.5 years and requires the employee to remain in their employment for the term of the program. When the employee receives share-based remuneration, the fair value of the employees' services is determined at the fair value of the equity instrument allotted. The fair value is calculated at the time of allotment using the Black & Scholes model. The fair value of the warrants allotted is recognized as a personnel expense with a corresponding increase in retained earnings, and spread over the vesting period based on the best possible estimate of the number of share warrants expected to be vested. The effect of amended estimates for the number of share warrants vested is recognized in the period in question.

Social security contributions attributable to share-based instruments for employees as remuneration for services purchased are expensed across the vesting period. The provision is based on fair value of the warrants and remeasured at every reporting date based on an estimate of the fees that could be paid when the instruments are redeemed.

Other operating expenses
Operational foreign exchange losses and losses in connection with divestment of tangible assets are recognized as other operating expenses.

Financial income
Financial income pertains to interest income on bank funds and receivables, as well as dividend income where applicable and positive foreign exchange differences on financial items. Financial income is recognized in the period to which it pertains.

Financial expenses
Financial expenses pertain to interest and other costs arising in conjunction with borrowing, and are recognized in profit or loss in the period to which they pertain. Negative foreign exchange differences on financial items and negative interest on cash and cash equivalents are also included in financial expenses.

Taxes
Tax for the period consists of current tax and deferred tax. Taxes are recognized in profit or loss, except when the underlying transaction is recognized in other comprehensive income or directly against equity, when the associated tax effect is also reported on this line.

Current tax is the estimated tax on the taxable earnings for the period. Taxable earnings differ from recognized earnings by having been adjusted for non-taxable and non-deductible items. Current tax is tax to be paid or received as regards the current year, adjusted for any current tax attributable to earlier periods.

Foreign tax held is recognized in the balance sheet to the extent it is deemed it can be settled against Swedish corporate tax.

Deferred income tax is recognized using the balance sheet method, which means that deferred tax liabilities are recognized in the balance sheet for all temporary differences arising between the carrying amount and taxable value of assets and liabilities. If the temporary difference arose upon the initial recognition of assets and liabilities constituting an asset acquisition, on the other hand, the deferred tax is not recognized. Deferred tax assets regarding deductible temporary differences and loss carry forwards are only recognized to the extent it is likely that the amount can be utilized against future taxable surplus. Deferred tax is determined in accordance with statutory tax rates that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

RESEARCH AND DEVELOPMENT / INTANGIBLE ASSETS
An intangible asset is recognized in the balance sheet when it is likely that the future economic advantages that can be attributed to the asset will fall to the Group, and when the value of the asset can be reliably calculated. Expenditures regarding development are capitalized and recognized in the balance sheet as intangible assets if the criteria for recognition in the balance sheet under IAS 38 Intangible assets are met. There are no expenditures in the Group that meet the criteria for being recognized as an asset.

TANGIBLE ASSETS
Tangible assets are recognized at cost less accumulated depreciation and write-downs. The cost includes expenditures that are directly attributable to the acquisition of the asset. Subsequent costs are included in the asset's carrying amount or recognized as a separate asset only when it is likely that future economic benefits associated with the item will fall to the Group and the cost of the item can be measured reliably. The useful life for inventory and equipment is deemed to be five years. Leasehold improvements are written-off based on the estimated useful life.

Right-of-use assets (leases) reported separately in the balance sheet are described in Note 14.

Note 2, cont.

LEASED ASSETS

The Group has applied the modified retrospective approach in the transition to IFRS 16, which means that the comparison figures have not been restated. Consequently, the comparison figures for 2018 are recognized in accordance with IAS 17 and IFRIC 4.

Accounting principles applicable as of January 1, 2019

The Group as lessee

An agreement is assessed as to whether it constitutes, or contains, a lease. A lease is defined as "an agreement that transfers the right of use of the underlying asset for a given period in exchange for remuneration." The agreements are assessed as to whether they fulfill the three criteria below in order to be considered as meeting the definition of a lease:

1. The agreement contains an identified asset
2. The Group has the right to all the material economic advantages arising through use of the identified asset throughout the entire lease period
3. The Group has the right to control the use of the identified asset throughout the entire lease period

Measurement and recognition of leases as lessee

At the beginning of the lease, a right-of-use asset and a lease liability are recognized in the balance sheet. The right-of-use asset is measured at cost, which covers the sum that the leasing liability was originally measured at as well as any future direct or indirect expenditures associated with the right-of-use asset. The depreciation of the right-of-use asset is linear over the assessed useful life. Any need for impairment of the right of use is assessed when there is an indication of a decrease in value.

At the beginning of the lease, the lease liability is measured at the current value of the lease liabilities that are unpaid at that point in time. Lease fees are discounted using the lease's implicit interest rate, if it can easily be determined, or the Group's incremental borrowing rate. Lease fees included in the measurement of the lease liability include fixed fees, variable index- or price-based lease fees, amounts that are expected to be disbursed in accordance with residual value guarantees and payments for warrants that are deemed to have been exercised. After the start date, the lease liability is reduced by payments and increased by interest.

Right-of-use assets are recognized separately in the balance sheet, whereas the lease liability is included in current and non-current lease liabilities.

Accounting principles applicable before January 1, 2019

Leases were previously classified at signing as either financial or operating leases. Under these accounting principles, the Group had only operating leases. These lease fees were expensed on a linear basis over the term of the lease. Associated costs such as maintenance and insurance were expensed as they arose.

FINANCIAL INSTRUMENTS

A financial instrument is any form of agreement that gives rise to a financial asset or financial liability. Financial assets in the balance sheet pertain to trade receivables, other receivables and contractual accrued income as well as cash and cash equivalents. Financial liabilities pertain to accounts payable, lease liabilities and contractual accrued expenses. The Group holds no derivatives.

Financial assets and financial liabilities are recognized when the Group becomes party to an agreement as regards the contractual terms and conditions of the financial instrument. Financial assets are removed from the balance sheet when the contractual rights regarding the financial asset expire, or when the financial asset and all significant risks and benefits are transferred. A financial liability is removed from the balance sheet when it is extinguished (i.e. when it is completed, annulled or expires).

Financial assets and liabilities are initially measured at fair value. Financial assets and liabilities are classified under the categories of amortized cost, fair value via profit or loss and fair value via other comprehensive income. During the periods included in the financial statements, all financial assets or liabilities are categorized as amortized cost. Financial assets classified under amortized cost are measured after initial recognition at amortized cost using the effective interest rate method. No discounts are applied if the effect of the discount is insignificant.

Financial assets and liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously.

TRADE RECEIVABLES

Trade receivables are reported net after reserves for expected credit losses. The expected duration of trade receivables is short, which is why the value is recognized at a nominal amount without discounts using the amortized cost method. The Group uses a simplified method for recognizing trade and other receivables as well as contract assets, and recognizes expected credit losses for the remaining duration. In this calculation, the Group uses its historical experience, external indicators and forward-looking information to estimate the expected credit losses. The amount reserved is recognized in profit or loss.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash on hand, bank balances and, where appropriate, other current investments with a maturity date within three months. Cash and cash equivalents are recognized at the nominal amount.

ACCOUNTS PAYABLE
These amounts represent liabilities for goods and services provided to the Group that are unpaid prior to the end of financial year. Trade payables are categorized as other financial liabilities. Since trade payables have a short expected duration, the value is recognized at the nominal amount.

EQUITY
Share capital represents the nominal value of shares issued. Transaction costs directly attributable to the issue of new shares or warrants are shown in equity as a deduction, net of tax, from the proceeds. Retained earnings comprise profit carried forward and share-based remuneration to employees for the current and previous financial years.

Share premium reserve is recognized as other contributed capital and statutory reserves are recognized as reserves.

CASH FLOW STATEMENT
The cash flow statement is prepared using the indirect method, whereby profit or loss is adjusted with transactions of a non-cash nature and income or expenses associated with investing and/or financing activities.

ALTERNATIVE PERFORMANCE MEASURES
The Group applies ESMA guidelines for alternative performance measures. In accordance with these guidelines, the Group's alternative performance measures are defined in Note 31. The Group applies alternative performance measures since the company believes they provide valuable supplementary information to management and investors, as they are central to understanding and evaluating the Group's operations.

PARENT COMPANY ACCOUNTING PRINCIPLES
The Parent Company complies with the Swedish Annual Accounts Act and the recommendation of the Financial Reporting Council, RFR 2 Accounting for legal entities. The application of RFR 2 means that in the annual report for the legal entity, the Parent Company applies all IFRS and opinions approved by the EU to the extent possible as part of the Annual Accounts Act and the Pension Obligations Vesting Act, and taking into account the connection between reporting and taxation. The recommendation indicates which exceptions from and additions to IFRS can be made.

Consequently, the Parent Company applies the principles presented in Note 2 of the consolidated financial statements, with the exceptions indicated below. The principles have been consistently applied to all the years presented, unless otherwise stated. Assets, provisions and liabilities have been measured at cost unless otherwise stated.

Presentation formats
The income statement and balance sheet follow the presentation format indicated in the Annual Accounts Act. This entails certain differences compared with the consolidated financial statements – for example, sub-items under equity have different designations.

Shares and participations in subsidiaries
Shares and participations in subsidiaries are recognized at cost, less any impairments.

Deferred income tax
Amounts allocated to untaxed reserves constitute taxable temporary differences. Owing to the connection between reporting and taxation, however, the deferred tax liability on untaxed reserves in a legal entity is reported as part of the untaxed reserves. Appropriations of profits in profit or loss are also reported including deferred tax.

Leases
Lease fees are expensed on a linear basis over the term of the lease. No right of use or lease liability is recognized in the balance sheet.

NOTE 3 Financial risk management

FINANCIAL RISK FACTORS
Through its operations, the Group is exposed to various financial risks. The overall goal of financial risk management is to minimize the risks of negative impact on the Group's earnings.

Foreign exchange risk
Foreign exchange risk pertains to the risk of impact on the Group's earnings and financial position as a consequence of changes in exchange rates. The Group has no loans in foreign currencies, and is therefore not exposed to any foreign exchange risk in connection with borrowing. Purchases and revenue in foreign currencies give rise to transaction exposure. Purchases in foreign currencies are primarily in EUR, USD, GBP and CHF. Purchases for 2019 totaled kEUR 1,445 (430), kUSD 1,170 (956), kGBP 3,104 (7,486) and kCHF 294 (901). Revenue in foreign currencies for 2019 totaled kEUR 15,000 (0) and kUSD 50,000 (0). The table on the following page shows the material balance sheet items in foreign currencies that the Group had as of December 31, 2019 and what impact a 10-percent change in the net amount in GBP, USD, EUR and CHF would have on earnings.

Note 3, cont.

	Amounts in kSEK per Dec. 31, 2019						
Currency	**Accrued income**	**Cash and cash equivalelents**	**Accounts payable**	**Net per currency**	**10%**	**Before tax**	**After tax**
CHF	-	1,763	-18	1,746	+/-	175	137
EUR	10,012	4,743	-562	14,193	+/-	1,419	1,116
GBP	-	15,621	-1,017	14,604	+/-	1,460	1,148
USD	-	27,647	-1,688	25,958	+/-	2,596	2,040
Total	**10,012**	**49,775**	**-3,285**	**56,501**	**+/-**	**5,650**	**4,441**

Interest rate risk
The Group has significant holdings in banks, which are impacted by interest rate levels. The Group is thereby exposed to interest rate risk. As of December 31, 2019 the Group had cash and cash equivalents of kSEK 1,112,770 (917,307). A change of 0.5 percentage points in the interest rate would entail an annual impact on earnings of kSEK 5,564 before tax and kSEK 4,373 after tax. As of December 31, 2019 the Group had no external loan financing, and thus has no interest rate risk for such commitments.

Financing risk
The access to capital is impacted by several different factors, including the performance of current research and development projects as well as partnership and licensing agreements. The point in time and scope of further financing depends not only on this, but also on whether the Group succeeds in signing new collaboration agreements and on market reception of products. General access to credit and BioArctic's creditworthiness also impact the financing risk.

Liquidity risk
Liquidity risk (i.e. ensuring the Group has sufficient cash funds to meet the needs of operating activities) is deemed to be low, since the Group has good access to cash and cash equivalents. Group Management actively monitors the liquidity situation to call attention to liquidity risks in a timely manner. The Group has no investments apart from bank balances.

Credit risk
Credit risk arises through cash and cash equivalents, balances in banks and credit institutions, and through credit exposure to customers, including receivables outstanding and contractual transactions. The Group has large amounts of cash and cash equivalents deposited in its banks, which the Group deems to be reliable. The Group depends on a few major partners, and it is of the greatest importance that these fulfill their contractual commitments.

OPERATIONAL AND BUSINESS ENVIRONMENT RISKS
Refer to the "Risks and uncertainties" section in the Board of Directors' Report for a description of the most important operational and business environment risks. These risks relate to the market, projects and products, decisions by authorities, competition and commercial success, research and development, product liability and insurance, production, intellectual property rights, collaboration agreements, clinical trials, safety and efficacy criteria and dependence on key personnel and partners.

SENSITIVITY ANALYSIS
Sensitivity analyses have been prepared concerning foreign exchange risk and interest rate risk as described above.

CAPITAL MANAGEMENT
The Group's objective as regards capital management is to safeguard its ability to continue as a going concern, so that it can continue to generate returns for shareholders and benefits for other stakeholders. An optimal capital structure keeps the costs of capital down. To maintain or adjust the capital structure, the Group can issue new shares.

NOTE 4 Significant estimates and judgements

To prepare financial statements in accordance with IFRS, Group Management and the Board of Directors must make assessments and assumptions. These impact recognized asset and liability items, and revenue and expense items as well as other information submitted. The assessments are based on experiences and assumptions that Group Management and the Board deem to be reasonable under the prevailing circumstances. Actual outcome may then differ from these assessments if other conditions emerge. The assessments that are most material to the preparation of the consolidated and Parent Company financial statements are described below.

Revenue from research collaborations
Recognition of revenue from research collaborations is based on the degree of completion as regards fulfillment of performance obligations. These performance obligations may change as a result of certain sub-operations being terminated while others may need to be added or reworked. This could lead to changes in the amount assessed against complete fulfillment of the performance obligation, which could entail an adjustment of revenue. The Group reviews all projects on a quarterly basis to ensure that revenue is based on a course of events toward a complete fulfillment of the performance obligations. For further information, refer to Note 5.

NOTE 5 Net revenue

Revenue for 2019 includes MSEK 108.4 (263.9) that was included in deferred income at the start of the financial year.

Revenue divided by geographical market is as follows:

	Group, 2019			*Parent Company, 2019*		
Amounts in kSEK	**Milestone payments**	**Income from research collaborations**	**Total**	**Milestone payments**	**Income from research collaborations**	**Total**
Europe	11,431	108,366	119,796	11,431	108,366	119,796
Asia	161,976	-	161,976	161,976	-	161,976
Total	**173,407**	**108,366**	**281,772**	**173,407**	**108,366**	**281,772**

	Group, 2018			*Parent Company, 2018*		
Amounts in kSEK	**Milestone payments**	**Income from research collaborations**	**Total**	**Milestone payments**	**Income from research collaborations**	**Total**
Europe	448,550	263,939	712,489	448,550	263,939	712,489
Asia	-	1,481	1,481	-	1,481	1,481
Total	**448,550**	**265,420**	**713,970**	**448,550**	**265,420**	**713,970**

For the financial year, two individual customers represented more than 10 percent each of revenues. For the 2018 financial year, one individual customer represented more than 10 percent of revenues.

Note 5, cont.

Revenue broken down by how the revenues are recognized is as follows:

	Group, 2019			*Parent Company, 2019*		
Amounts in kSEK	**Milestone payments**	**Income from research collaborations**	**Total**	**Milestone payments**	**Income from research collaborations**	**Total**
At a given point in time	173,407	-	173,407	173,407	-	173,407
Over time	-	108,366	108,366	-	108,366	108,366
Total	**173,407**	**108,366**	**281,772**	**173,407**	**108,366**	**281,772**

	Group, 2018			*Parent Company, 2018*		
Amounts in kSEK	**Milestone payments**	**Income from research collaborations**	**Total**	**Milestone payments**	**Income from research collaborations**	**Total**
At a given point in time	448,550	-	448,550	448,550	-	448,550
Over time	-	265,420	265,420	-	265,420	265,420
Total	**448,550**	**265,420**	**713,970**	**448,550**	**265,420**	**713,970**

The Group routinely evaluates its projects, and in the second half of 2019 the remaining expenses for fulfilling the performance obligations in the research collaboration with AbbVie were deemed to exceed the previous assessment. The new assessment does not, however, entail a non-recurring impact on revenue but the margin for revenue recognized over time will be lower in the future. As of December 31, 2019, MSEK 600.9 for the research collaboration agreement with AbbVie was recognized as revenue over time, and MSEK 100.7 remains to be recognized as revenue over the period until the end of the project.

Payment for the current research agreements has been received in advance in a fixed amount. For milestone payments, fixed payments can be received at an amount determined in advance based on contractual milestones.

The total amounts for transaction prices regarding the performance obligations from existing agreements that were either wholly or partially unfulfilled at December 31, 2019 are shown below. This amount is included in deferred income; refer to Note 25.

Amounts in kSEK	**2020**	**2021**	**2022 and onward**	**Total**
Expected revenue, unfulfilled performance obligations	48,170	22,295	30,284	100,749

NOTE 6 Other operating income

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Operational foreign exchange gains	13,004	7,999	13,004	7,999
EU grants	791	8,254	791	8,254
Vinnova grants	381	-	381	-
Other items	650	7	650	7
Total other operating income	**14,826**	**16,259**	**14,826**	**16,259**

NOTE 7 Employees

AVERAGE NUMBER OF EMPLOYEES

	Group		Parent Company	
Number	**2019**	**2018**	**2019**	**2018**
Women	24	18	24	18
Men	13	11	13	11
Total	**37**	**29**	**37**	**29**

BOARD MEMBERS AND SENIOR EXECUTIVES

	2019		2018	
Number	**Balance sheet date**	**Of whom women**	**Balance sheet date**	**Of whom women**
BioArctic AB				
Board members	8	2	7	1
CEO and other senior executives	9	5	8	4

SALARIES, REMUNERATION AND SOCIAL SECURITY CONTRIBUTIONS

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Salaries and remuneration				
Board of Directors, CEO and other senior executives [1]	24,157	20,797	24,157	20,797
(of which, variable)	(6,691)	(6,594)	(6,691)	(6,594)
Other employees	15,338	19,527	15,338	19,527
Total salaries and remuneration	**39,496**	**40,324**	**39,496**	**40,324**
Social security contributions	11,071	11,058	11,071	11,058
Pension costs	7,222	4,429	7,222	4,429
(of which Board of Directors, CEO and other senior executives)	(4,085)	(2,881)	(4,085)	(2,881)
Total salaries, remuneration and social security contributions	**57,789**	**55,811**	**57,789**	**55,811**

[1] This amount includes invoiced fees of kSEK 2,973 in 2019

The company has no outstanding pension obligations.

Note 7, cont.

REMUNERATION AND OTHER BENEFITS, 2019

Amounts in kSEK	Fixed salary/ Fees	Variable remuneration	Pension	Share-based remuneration	Total
Board of Directors					
Wenche Rolfsen (chairman)	560	-	-	-	560
Lars Lannfelt [1]	1,727	-	364	-	2,090
Pär Gellerfors	364	-	-	-	364
Eugen Steiner	329	-	-	-	329
Ivar Verner	379	-	-	-	379
Hans Ekelund	329	-	-	-	329
Mikael Smedeby	229	-	-	-	229
Ewa Björling [2]	146	-	-	-	146
Senior executives					
CEO Gunilla Osswald	2,725	3,218	967	82	6,993
Other senior executives (7 persons)[1]	10,481	3,472	2,754	115	16,822
Total remuneration and other benefits [3]	**17,269**	**6,691**	**4,085**	**197**	**28,242**

[1] Lars Lannfelt is active the company and is employed at 100% of full-time service. Lars is part of the management team but is reported in the Board of Directors only in the table above so as not to be double-counted.
[2] Ewa Björling has been a Board member since May 9, 2019
[3] This amount includes invoiced fees of kSEK 2,973

REMUNERATION AND OTHER BENEFITS, 2018

Amounts in kSEK	Fixed salary/ Fees	Variable remuneration	Pension	Share-based remuneration	Total
Board of Directors					
Wenche Rolfsen (chairman)	543	-	-	-	543
Lars Lannfelt	1,984	-	151	-	2,135
Pär Gellerfors	1,169	-	208	-	1,377
Eugen Steiner	300	-	-	-	300
Ivar Verner	319	-	-	-	319
Hans Ekelund	320	-	-	-	320
Mikael Smedeby	117	-	-	-	117
Senior executives					
CEO Gunilla Osswald	2,505	1,815	872	-	5,193
Other senior executives (7 persons)	11,912	4,779	1,650	-	18,341
Total remuneration and other benefits	**19,170**	**6,594**	**2,881**	**0**	**28,646**

CEO Gunilla Osswald received remuneration of kSEK 2,725 as fixed annual salary and an additional 35 percent in pension provisions. The CEO is covered by the rewards program covering all employees; see below. In 2019, the CEO had variable remuneration of up to 35 percent of annual salary. Between the company and the CEO, there is a notice period of 12 months by the company and 6 months by the CEO. Upon termination by the company, there is no work obligation during the notice period, but the CEO shall be available to the company as needed.

Company management comprises eight ordinary members and one co-opted member. Senior executives except the CEO receive normal market remuneration and individually negotiated premiums for service pension or alternately premiums under the terms of the company's pension plan. All other employees receive market salaries, and premiums are allocated to the occupational pension in accordance with the terms of the company's pension plan. All employees have a contractual mutual notice period of three months or alternately in accordance with the Employment Protection Act. Severance pay is not applied. For non-executive Board members, fees have been paid pursuant to the resolutions of the Annual General Meeting.

BioArctic has two rewards programs covering all permanent employees. One condition for receiving variable remuneration is that the employee has been employed for more than six months at the time when the goal that forms the basis for payment of variable remuneration is reached. The goals are linked to milestones achieved under the clinical research program for drug candidates BAN2401 for Alzheimer's disease and ABBV-0805 for Parkinson's disease. The potential variable remuneration to the employee amounts to one month's salary per milestone. The variable remuneration is not pensionable. For 2019, in addition to variable remuneration to the CEO, the other senior executives have the possibility of variable remuneration amounting to 20 to 25 percent of their annual salaries.

Share-based remuneration to employees

The 2019 AGM approved a proposal from the Board of Directors regarding the stock warrant program for company management, researchers and other employees, as well as a proposal for a private placement of warrants and a proposal to approve the transfer to warrants or shares in the company to participants in the employee stock option program.

The 2019/2028 employee stock warrant program will cover at most 1,000,000 stock warrants. To facilitate the company's delivery of shares under the 2019/2028 employee stock warrant program, the AGM resolved on a private placement of 1,000,000 warrants.

The maximum dilution effect of the 2019/2028 employee stock warrant program is estimated to be 1.1 percent of share capital and 0.5 percent of the voting rights in the company (calculated based on the number of existing shares in the company), provided that all stock warrants are fully exercised.

At the end of the year, 480,000 stock warrants had been allocated.

There was no dilution effect in accordance with IAS 33.47 at year end, since the average share price for the period fell below the subscription price.

The program extends over five years and six months from the point in time of allocation for the respective employees. The warrants grant participants the right to acquire 60 percent of the allocated share rights after three years, a further 20 percent after four years and the remaining 20 percent after five years, provided that the participant remains employed in the Group.

Share warrants and weighted average prices at redemption are as follows for the current reporting periods:

	Number of shares
Outstanding as at January 1, 2018	-
Outstanding as at Dec. 31, 2018	**-**
Outstanding as at January 1, 2019	-
Granted	480,000
Forfeit/Redeemed/Due	-
Outstanding as at Dec. 31, 2019	**480,000**
Redeemable as at Dec. 31, 2018	-
Redeemable as at Dec. 31, 2019	**-**

	2019/2028 stock warrant program		
Grant date	Sep. 11, 2019	Sep. 11, 2019	Dec 1, 2019
Vesting period concludes	Sep. 11, 2024	Sep. 11, 2024	Dec 1, 2024
Volume	435,000	25,000	20,000
Share price at allocation date	62.90	62.90	98.00
Volatility	40%	40%	40%
Warrant life expectancy	5.5 years	5.5 years	5.5 years
Risk-free interest rate	0%	0%	0%
Fair value per warrant at allocation date	17.20	17.55	47.45
Exercise price	83.60	82.04	67.11
Weighted average remaining contract period	5.20 years	5.20 years	5.41 years

The volatility used in calculating the value of the warrants was established based on a comparison with similar companies. No other elements have been taken into account in allocating the warrants when calculating the fair value.

In 2019, kSEK 383 was recorded as personnel expenses.

NOTE 8 Remuneration to the auditors

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Grant Thornton				
Audit engagement	503	583	503	583
Audit services in addition to audit engagement	123	9	123	9
Tax advisory service	581	145	581	145
Other services	224	491	224	491
Total remuneration to Grant Thornton	**1,431**	**1,228**	**1,431**	**1,228**

Audit assignment refers to the review of the Annual Report and the accounts, as well as of the administration by the Board of Directors and the CEO, and to other work tasks that it is the business of the company's auditor to perform as well as consultancy or other assistance occasioned by observations in conjunction with such reviews or the performance of other such work tasks.

Tax advisory service includes consultancy on income tax and VAT.

Other services pertain to consultancy not attributable to any of the categories of service named above.

NOTE 9 Commitments

LEASES

The Group applies IFRS 16 Leases as of January 1, 2019, which means that leases are recognized in the balance sheet as a right-of-use asset and a lease liability. For further information on the transition to IFRS 16, refer to Notes 2, 14 and 24. Operating leases for 2019 pertain only to the Parent Company and to rent for office premises under non-cancellable operating leases where the remaining term of the lease is 4 years.

EXPENSED MINIMUM LEASE PAYMENTS

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Lease fees, premises	-	6,522	7,915	6,522
Total	**0**	**6,522**	**7915**	**6,522**

FUTURE MINIMUM LEASE PAYMENTS FOR NON-CANCELLABLE OPERATING LEASES

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Within one year	-	6,999	7,506	6,999
Later than one year but not later than five years	-	26,982	21,717	26,982
Later than five years	-	-	-	-
Total	**0**	**33,981**	**29,224**	**33,981**

OTHER COMMITMENTS

BioArctic has undertaken to conduct research operations to reach predefined milestones. An advance payment of SEK 701.6 M has been received for BioArctic's commitments, of which revenue of approximately SEK 100.7 M remained to be recognized at the reporting date. Total costs for meeting this commitment are deemed to be lower than this remaining revenue.

NOTE 10 Other operating costs

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Operational foreign exchange losses	11,554	5,031	11,554	5,031
Total other operating costs	**11,554**	**5,031**	**11,554**	**5,031**

NOTE 11 Financial income and costs

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Interest charged	253	40	253	40
Foreign exchange gains	1,377	2,131	1,377	2,131
Total financial income	**1,630**	**2,171**	**1,630**	**2,171**
Interest charged	-1,192	-1,371	-110	-1,371
Total financial expenses	**-1,192**	**-1,371**	**-110**	**-1,371**
Total financial income and expenses	**437**	**800**	**1,519**	**800**

NOTE 12 Tax

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Current tax	-18,450	-80,919	-18,450	-80,919
Deferred tax	-6,057	-27,073	60	-40
Total tax on profit for the year	**-24,507**	**-107,991**	**-18,390**	**-80,959**

RECONCILIATION OF EFFECTIVE TAX

In the table below, reported tax is reconciled against tax based on the Swedish tax rate of 21.4% (22.0%).

RECONCILIATION OF EFFECTIVE TAX

	Group		Parent Company	
Amounts in kSEK	**2019**	**2018**	**2019**	**2018**
Profit before tax	112,976	489,593	84,344	366,718
Tax under applicable tax rate (21.4%)	-24,177	-107,711	-18,050	-80,678
Non-deductible expenses	-181	-257	-181	-257
Non-taxable income	-	-	-	-
Standard income on tax allocation reserve	-160	-19	-160	-19
Revaluation of deferred tax	10	-5	-	-5
Total tax	**-24,507**	**-107,991**	**-18,390**	**-80,959**
Effective tax, %	21.7%	22.1%	21.8%	22.1%

CURRENT TAX LIABILITIES

	Group		Parent Company	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
Current tax liabilities	10,871	73,339	10,871	73,339
Total current tax liabilities	**10,871**	**73,339**	**10,871**	**73,339**

DEFERRED TAX

Deferred tax consists of tax items to be settled in the future. The table below specifies deferred tax receivables and tax liabilities regarding temporary differences between the carrying amount of assets and liabilities and their taxable value.

DEFERRED TAX ON TEMPORARY DIFFERENCES

	Group		Parent Company	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
Leasehold improvements	250	189	250	189
Deferred tax, IFRS 16	48	-	-	-
Total deferred tax assets	**298**	**189**	**250**	**189**
Tax allocation reserve	-38,306	-32,165	-	-
Accelerated depreciation	-379	-355	-	-
Total deferred tax liabilities	**-38,685**	**-32,520**	**0**	**0**
Total net deferred tax	**-38,388**	**-32,330**	**250**	**189**

Note 12, cont.

CHANGE IN DEFERRED TAX

	Group			Parent Company		
Amounts in kSEK	**Jan. 1, 2019**	**Recognized in profit or loss**	**Dec. 31, 2019**	**Jan. 1, 2019**	**Recognized in profit or loss**	**Dec. 31, 2019**
Leasehold improvements	189	60	250	189	60	250
Deferred tax, IFRS 16	0	48	48	0	-	0
Total deferred tax assets	**189**	**108**	**298**	**189**	**60**	**250**
Tax allocation reserve	-32,165	-6,142	-38,306	0	-	0
Accelerated depreciation	-355	-24	-379	0	-	0
Total deferred tax liabilities	**-32,520**	**-6,166**	**-38,685**	**0**	**0**	**0**
Total net deferred tax	**-32,330**	**-6,057**	**-38,388**	**189**	**60**	**250**

	Group			Parent Company		
Amounts in kSEK	**Jan 1, 2018**	**Recognized in profit or loss**	**Dec 31, 2018**	**Jan 1, 2018**	**Recognized in profit or loss**	**Dec. 31, 2018**
Leasehold improvements	230	-40	189	230	-40	189
Total deferred tax assets	**230**	**-40**	**189**	**230**	**-40**	**189**
Tax allocation reserve	-5,192	-26,973	-32,165	0	-	0
Accelerated depreciation	-295	-60	-355	0	-	0
Total deferred tax liabilities	**-5,487**	**-27,033**	**-32,520**	**0**	**0**	**0**
Total net deferred tax	**-5,257**	**-27,073**	**-32,330**	**230**	**-40**	**189**

NOTE 13 Earnings per share and share data

Earnings per share is calculated by dividing earnings for the year attributable to Parent Company shareholders by a weighted average of the number of ordinary shares outstanding during the period. There were 480,000 warrants allocated at the reporting date, but these did not entail any dilution effect since the average share price for the period fell below the subscription price as of December 31, 2019. If the average share price exceeds the subscription price in the future, this will entail a dilution effect.

	Group	
Amounts in kSEK	**2019**	**2018**
Profit for the year attributable to owners of the Parent Company, kSEK	88,468	381,602
Weighted average number of shares outstanding before dilution	88,059,985	88,059,985
Weighted average number of shares outstanding after dilution	88,059,985	88,059,985
Earnings per share before dilution, SEK	**1.00**	**4.33**
Earnings per share after dilution, SEK[1]	**1.00**	**4.33**
Proposed dividend per share, SEK	0.00	1.50
Number of shares outstanding as of the balance sheet date	88,059,985	88,059,985
Number of warrants	480,000	-

[1] No dilution effect since the average share price for the period fell below the subscription price as of December 31, 2019.

NOTE 14 Tangible assets and right-of-use assets

	Group			
Amounts in kSEK	**Leasehold improvements**	**Equipment**	**Right-of-use assets**	**Total**
Cost at January 1, 2019	2,257	22,249	0	24,506
Adjustment on transition to IFRS 16	-	-	33,336	33,336
Acquisitions	529	2,733	447	3,709
Cost at December 31, 2019	**2,786**	**24,982**	**33,782**	**61,550**
Depreciations at January 1, 2019	-1,264	-13,953	0	-15,217
Depreciations	-403	-2,558	-6,238	-9,199
Depreciations at December 31, 2019	**-1,666**	**-16,511**	**-6,238**	**-24,416**
Carrying amount at January 1, 2019	**993**	**8,296**	**0**	**9,289**
Carrying amount at December 31, 2019	**1,120**	**8,471**	**27,544**	**37,135**

	Group			
Amounts in kSEK	**Leasehold improvements**	**Equipment**	**Right-of-use assets**	**Total**
Cost at January 1, 2018	2,257	17,994	0	20,251
Acquisitions	-	4,255	-	4,255
Cost at December 31, 2018	**2,257**	**22,249**	**0**	**24,506**
Depreciations at January 1, 2018	-1,310	-11,849	0	-13,158
Depreciations	46	-2,105	-	-2,059
Depreciations at December 31, 2018	**-1,264**	**-13,953**	**0**	**-15,217**
Carrying amount at January 1, 2018	**947**	**6,146**	**0**	**7,093**
Carrying amount at December 31, 2018	**993**	**8,296**	**0**	**9,289**

Note 14, cont.

	Parent Company		
Amounts in kSEK	**Leasehold improvements**	**Equipment**	**Total**
Cost at January 1, 2019	2,257	22,249	24,506
Acquisitions	529	2,733	3,262
Cost at December 31, 2019	**2,786**	**24,982**	**27,768**
Depreciations at January 1, 2019	-1,264	-13,953	-15,217
Depreciations	-403	-2,558	-2,961
Depreciations at December 31, 2019	**-1,666**	**-16,511**	**-18,178**
Carrying amount at January 1, 2019	**993**	**8,296**	**9,289**
Carrying amount at December 31, 2019	**1,120**	**8,471**	**9,590**

	Parent Company		
Amounts in kSEK	**Leasehold improvements**	**Equipment**	**Total**
Cost at January 1, 2018	2,257	17,994	20,251
Acquisitions	-	4,255	4,255
Cost at December 31, 2018	**2,257**	**22,249**	**24,506**
Depreciations at January 1, 2018	-1,310	-11,849	-13,158
Depreciations	46	-2,105	-2,059
Depreciations at December 31, 2018	**-1,264**	**-13,953**	**-15,217**
Carrying amount at January 1, 2018	**947**	**6,146**	**7,093**
Carrying amount at December 31, 2018	**993**	**8,296**	**9,289**

NOTE 15 Shares in subsidiaries

	Parent Company	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**
Opening cost	100	100
Closing cost	**100**	**100**

SPECIFICATION OF PARENT COMPANY'S SHARES

Subsidiary/corp. ID No./Reg. office	**Share owned, %[1]**	**Equity**	**Loss for the year**
SpineMedical AB, 559003-7080, Stockholm	100.0%	47	-1
LPB Sweden AB, 559035-9112, Stockholm	100.0%	49	-1

[1] Pertains to ownership share of capital, which also corresponds to the proportion of voting rights for the total number of shares.

NOTE 16 Other non-current financial assets

	Group		*Parent Company*	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
Deposit	1,511	1,500	1,511	1,500
Total other non-current financial assets	**1,511**	**1,500**	**1,511**	**1,500**

Pertains to deposit for rental contract in the form of restricted cash; refer to Note 26.

NOTE 17 Overview of financial instruments

CATEGORIES OF FINANCIAL ASSETS AND LIABILITIES

The Group's financial assets and liabilities are fully attributable to cash and cash equivalents, current receivables, accrued income, trade payables and accrued expenses. The Group has no foreign exchange contracts or listed securities.

Dec 31, 2019 Amounts in kSEK	Note	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income
Financial assets				
Trade receivables		188	-	-
Other current receivables	18	183	-	-
Cash and cash equivalents	20	1,112,770	-	-
Total financial assets		**1,113,140**	**0**	**0**
Financial liabilities				
Accounts payable		-8,218	-	-
Contractual accrued expenses	25	-8,023	-	-
Total financial liabilities		**-16,241**	**0**	**0**
Total financial instruments (assets + / liabilities -)		**1,096,899**	**0**	**0**

Dec 31, 2018 Amounts in kSEK	Note	Amortized cost	Fair value through profit or loss	Fair value through other comprehensive income
Financial assets				
Trade receivables				
Other current receivables	18	384	-	-
Contractual accrued revenue	19	448,550	-	-
Cash and cash equivalents	20	917,307	-	-
Total financial assets		**1,366,241**	**0**	**0**
Financial liabilities				
Accounts payable		-14,808	-	-
Contractual accrued expenses	25	-20,873	-	-
Total financial liabilities		**-35,681**	**0**	**0**
Total financial instruments (assets + / liabilities -)		**1,330,560**	**0**	**0**

Note 17, cont.

THE GROUP'S MATURITY STRUCTURE FOR UNDISCOUNTED FINANCIAL LIABILITIES

Amounts in kSEK	2020	2021	2022	2023	2024
Accounts payable	8,218	-	-	-	-
Lease liabilities	7,506	7,239	7,239	7,239	-
Contractual accrued expenses	8,023	-	-	-	-
Total	**23,747**	**7,239**	**7,239**	**7,239**	**0**

NOTE 18 Other current receivables

	Group		*Parent Company*	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
VAT receivables	18,299	3,520	18,299	3,520
Other	183	384	183	384
Total other current receivables	**18,482**	**3,904**	**18,482**	**3,904**

NOTE 19 Prepaid expenses and accrued income

	Group		*Parent Company*	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
Prepaid rent	2,123	1,696	2,123	1,696
Other prepaid expenses	815	747	815	747
Accrued EU grants	10,012	9,860	10,012	9,860
Contractual accrued revenue	-	448,550	-	448,550
Total prepaid expenses and accrued income	**12,950**	**460,853**	**12,950**	**460,853**

In 2019, the full amount reported under contractual accrued revenue as at December 31, 2018 was reported as one item. No new contractual accrued revenue was added during the year.

NOTE 20 Cash and cash equivalents

	Group		*Parent Company*	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
Cash and bank balances	1,112,770	917,307	1,112,672	917,209
Total cash and cash equivalents	**1,112,770**	**917,307**	**1,112,672**	**917,209**

NOTE 21 Share capital

Class of share	Number of shares	Share capital, SEK	Quotient value, SEK	Votes per share	Total votes
A shares	14,399,996	288,000	0.02	10	143,999,960
B shares	73,659,989	1,473,200	0.02	1	73,659,989
Total	**88,059,985**	**1,761,200**			**217,659,949**

DEVELOPMENT OF SHARE CAPITAL

Year	Event	Number of new shares	Number of A shares	Number of B shares	Total number of shares	Change in share capital, SEK	Total share capital, SEK
2000	Company founded	1,000	1,000	-	1,000	100,000	100,000
2002	Split 1000:1	999,000	1,000,000	-	1,000,000	-	100,000
2002	Split 4:1	3,000,000	4,000,000	-	4,000,000	-	100,000
2002	Reclassification of A shares to B shares	-	3,000,000	1,000,000	4,000,000	-	100,000
2004	Rights issue	133,333	3,133,333	1,000,000	4,133,333	3,333	103,333
2005	Rights issue	66,666	3,199,999	1,000,000	4,199,999	1,667	105,000
2011	Subscription through warrants	4,000	3,199,999	1,004,000	4,203,999	100	105,100
2017	Stock dividend issue	-	3,199,999	1,004,000	4,203,999	1,156,100	1,261,200
2017	Split 15:1	58,855,986	47,999,985	15,060,000	63,059,985	-	1,261,200
2017	Reclassification of A shares to B shares	-	14,399,996	48,659,989	63,059,985	-	1,261,200
2017	Rights issue	25,000,000	14,399,996	73,659,989	88,059,985	500,000	1,761,200
		88,059,985				**1,761,200**	

Regarding changes in equity, refer to the consolidated and Parent Company statements of changes in equity.

NOTE 22 Proposed appropriation of retained earnings

The Board of Directors proposes that available funds amounting to SEK 833,968,288 be disposed of as follows:

	Dec. 31, 2019
Carried forward	833,968,288
Total	**833,968,288**

Amounts in SEK

NOTE 23 Untaxed reserves

	Parent Company	
Amounts in kSEK	**Dec. 31, 2019**	**Dec. 31, 2018**
Tax allocation reserve, 2016	18,800	18,800
Tax allocation reserve, 2017	4,800	4,800
Tax allocation reserve, 2018	122,603	122,603
Tax allocation reserve, 2019	28,700	-
Total tax allocation reserve	**174,903**	**146,203**
Accelerated depreciation	1,771	1,614
Total untaxed reserves	**176,674**	**147,817**

NOTE 24 Lease liabilities

Lease liabilities presented in the balance sheet are allocated as follows:

	Group	
Amounts in kSEK	**Dec 31, 2019**	**Dec 31, 2018**
Current	6,439	-
Non-current	20,927	-
Total lease liabilities	**27,366**	**0**

The table below describes the Group's leases based on the type of right of use recognized in the statement of financial position:

Right-of-use assets	**Number of right-of-use assets**	**Interval, duration remaining**	**Average remaining lease period**	**Number of contracts with warrants to extend**	**Number of contracts with warrants to purchase**	**Number of contracts with variable fees pegged to an index**	**Number of contracts with warrants to cancel**
Office premises	2	4 years	4 years	2	0	2	2
Garage spaces	1	1 year	1 year	1	0	1	1

LEASES NOT RECOGNIZED AS LIABILITIES

The Group has chosen not to recognize a lease liability regarding short-term leases (leases with an expected term of 12 months or less) or low-value leases. Payments concerning such leases are expensed on a linear basis. Furthermore, the recognition of certain lease fees as lease liabilities is not permitted, which is why they are also routinely expensed.

NOTE 25 Accrued expenses and prepaid income

	Group		Parent Company	
Amounts in kSEK	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Accrued personnel expenses	9,454	18,721	9,454	18,721
Contractual accrued expenses	8,023	20,873	8,023	20,873
Prepaid income	101,168	209,114	101,168	209,114
Prepaid EU grants	1,292	2,083	1,292	2,083
Other accrued expenses and prepaid income	182	-	-	-
Total accrued expenses and prepaid income	**120,119**	**250,791**	**119,936**	**250,791**

In 2019, SEK 108.4 M (263.9) was recognized as revenue, which included prepaid income at the start of the financial year. No revenue was recognized during the year from fulfilled or partially fulfilled performance obligations from earlier periods.

The prepaid income recognized is expected to be utilized primarily in the period from 2020 to 2022; refer to Note 5 for further information.

NOTE 26 Pledged assets and contingent liabilities

PLEDGED ASSETS

The pledged assets in the table below were pledged as security for office premises.

	Group		Parent Company	
Amounts in kSEK	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Restricted cash	1,500	1,500	1,500	1,500
Deposit, lease	11	-	11	-
Total pledged assets	**1,511**	**1,500**	**1,511**	**1,500**

CONTINGENT LIABILITIES

The contingent liabilities below have been identified as applying to both the Group and the Parent Company:

- Under the EU joint agreement it has signed, BioArctic has a repayment obligation toward the contracting parties in the event the projects are terminated and the advance payments received exceed the costs incurred. BioArctic also has an obligation to defray the expenses for the medical care needs of patients included in these trials.
- As part of the Swedish state grants received, the company has a repayment obligation if the projects are terminated, or alternately the company does not complete the project in accordance with guidelines, and the project costs incurred do not total the amount disbursed.

All projects are proceeding according to plan, and there are no indications that repayment obligations or other obligations could arise. The same assessment was made in 2018.

NOTE 27 Disclosures on the cash flow statement

ADJUSTMENT FOR NON-CASH ITEMS

	Group		Parent Company	
Amounts in kSEK	2019	2018	2019	2018
Depreciations of tangible assets and right-of-use assets	9,199	2,059	2,961	2,059
Prepaid income	-108,366	-721,000	-108,366	-721,000
Unrealized foreign exchange gains (-) / losses (+)	-8,701	-7,945	-8,701	-7,945
Share-based remuneration	383	-	383	-
Total adjustment for non-cash items	**-107,485**	**-726,886**	**-113,723**	**-726,886**

NOTE 28 Transactions with affiliated parties

Until May 2019, Board member Mikael Smedeby worked as a lawyer and partner in Advokatfirman Lindahl KB, which provides routine business law advice to BioArctic. The fees invoiced totalled MSEK 0.4 (0.6). Board member Pär Gellerfors submitted invoices totaling SEK 0.1 M (–) via Ackelsta AB for consultant services during the January–December period. Christina Astrén and Christine Lind, both members of BioArctic's management group in 2019 but not employed by the company, submitted invoices to BioArctic for consultant services during the year. Remuneration to Christina Astrén's and Christine Lind's respective companies, C Astrén AB and Lind Growth Strategy AB, totaled SEK 2.8 M (4.5) in 2019. Remuneration has been paid for consultant services provided in the fields of investor relations and communication. All services invoiced to related parties are based on normal market prices. Pär Gellerfors is the CEO and a Board member of Swenora AB. Invoices for patent expenses of SEK 0.2 M (–) were submitted to Swenora AB during the year.

Apart from the remuneration to Advokatfirman Lindahl KB, Ackelsta AB, C Astrén AB and Lind Growth Capital AB, and the invoicing to Swenora AB, salaries and Board fees described above, no material transactions have taken place between the Group and related parties. All transactions took place under market conditions.

NOTE 29 Events after the balance sheet date

The spread of Covid-19 has increased in intensity and scope, both in Sweden and around the world, in the first quarter of 2020. BioArctic is carefully monitoring the course of events in our business environment and is complying with guidelines from government authorities. At present it is difficult to assess, and too early to estimate, how the virus will impact BioArctic's operations over the long term.

NOTE 30 Information on purchases and sales within the Group

No purchases or sales occurred within the Group.

NOTE 31 Definition and reconciliation of key ratios

Key ratios	Definition
Other income	Income other than net revenue
Operating profit/loss	Result before financial items
Operating margin, %	Operating profit/loss divided by net revenue
Equity per share	Adjusted equity divided by the number of shares at the end of the period
Cash flow from operating activities per share, SEK	Cash flow from operating activities divided by the weighted average number of shares outstanding
Equity/asset ratio, %	Adjusted equity divided by the balance sheet total
Return on equity	Earnings after tax divided by the average adjusted equity

Amounts in kSEK	2019	2018	2017	2016	2015
Operating margin					
Operating profit	112,538	488,794	19,294	74,631	4,844
Net revenue	281,772	713,970	140,706	105,613	41,573
Operating margin, %	**39.9%**	**68.5%**	**13.7%**	**70.7%**	**11.7%**
Basic earnings per share					
Profit for the year	88,468	381,602	15,157	57,580	3,710
Weighted average number of shares outstanding before dilution [1]	88,059,985	88,059,985	68,059,985	63,059,985	63,059,985
Earnings per share before dilution, SEK	**1.00**	**4.33**	**0.22**	**0.91**	**0.06**
Diluted earnings per share					
Profit for the year	88,468	381,602	15,157	57,580	3,710
Weighted average number of shares outstanding after dilution [1]	88,059,985	88,059,985	68,059,985	63,059,985	63,059,985
Earnings per share after dilution, SEK	**1.00**	**4.33**	**0.22**	**0.91**	**0.06**
Equity per share					
Equity	974,497	1,017,736	636,134	60,760	108,285
Number of shares outstanding [1]	88,059,985	88,059,985	88,059,985	63,059,985	63,059,985
Equity per share	**11.07**	**11.56**	**7.22**	**0.96**	**1.72**
Cash flow from operating activities per share					
Cash flow from operating activities	327,165	-200,057	-135,327	675,131	-16,434
Weighted average number of shares outstanding before dilution [1]	88,059,985	88,059,985	68,059,985	63,059,985	63,059,985
Cash flow from operating activities per share	**3.72**	**-2.27**	**-1.99**	**10.71**	**-0.26**
Equity/asset ratio, %					
Adjusted equity	974,497	1,017,736	636,134	60,760	108,285
Balance sheet total	1,183,332	1,393,042	1,140,483	707,976	131,111
Equity/asset ratio, %	**82.4%**	**73.1%**	**55.8%**	**8.6%**	**82.6%**
Return on equity					
Profit for the year	**88,468**	**381,602**	**15,157**	**57,580**	**3,710**
Average adjusted equity	**996,116**	**826,935**	**348,447**	**84,522**	**106,428**
Return on equity, %	**8.9%**	**46.1%**	**4.3%**	**68.1%**	**3.5%**

[1] Comparison figures have been restated owing to the 15:1 split carried out on August 1, 2017

Assurance of the Board of Directors and CEO

The Board of Directors and the CEO hereby assure that the consolidated accounts and annual report were prepared as per the International Financial Reporting Standards (IFRS) as adopted by the EU, and generally accepted accounting principles, respectively, and provide a true and fair view of the development of the Group's and Parent Company's financial position and performance, and that the Board of Directors' report provides a true and fair view of the Group's and Parent Company's operations, financial position and performance as well as describing material risks and uncertainties faced by the companies that are part of the Group. The income statements and balance sheets of the Parent Company and the Group are subject to adoption by the Annual General Meeting on May 7, 2020.

Stockholm, Sweden on March 31, 2020

Wenche Rolfsen
Chairman of the Board

Ivar Verner
Deputy Chairman

Ewa Björling
Board member

Hans Ekelund
Board member

Pär Gellerfors
Board member

Lars Lannfelt
Board member

Mikael Smedeby
Board member

Eugen Steiner
Board member

Our audit report was submitted on March 31, 2020

Grant Thornton Sweden AB

Mia Rutenius
Authorized public accountant
Auditor in charge

Therese Utengen
Authorized public accountant

Auditor's Report

To the general meeting of the shareholders of BioArctic AB (publ) corporate identity number 556601-2679

REPORT ON THE ANNUAL ACCOUNTS AND CONSOLIDATED ACCOUNTS

Opinions

We have audited the annual accounts and consolidated accounts of BioArctic AB (publ) for the year 2019, with the exception of the Corporate Governance Report on pages 51-59. The annual accounts and consolidated accounts of the company are included on pages 38-98 in this document.
In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of parent company as of December 31, 2019 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of December 31, 2019 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. Our statements do not include the Corporate Governance Report on the pages 51-59. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the General Meeting of shareholders adopts the income statement and balance sheet for the Parent Company and the Group.

Our opinions in this report on the annual accounts and consolidated accounts are consistent with the content of the additional report that has been submitted to the Rarent Company's audit committee in accordance with the Audit Regulation (537/2014/EU) Article 11.

Basis for Opinions

We conducted our audit in accordance with International Standards on Auditing (ISA) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the Parent Company and the Group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements. This includes that, based on the best of our knowledge and belief, no prohibited services referred to in the Audit Regulation (537/2014/EU) Article 5.1 have been provided to the audited company or, where applicable, its parent company or its controlled companies within the EU.

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

Key Audit Matters

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

Revenue recognition

The Group's reported revenues as at December 31, 2019 is kSEK 281,772, and mainly includes compensation related to research collaborations and milestone payments. The reporting of revenue related to compensation from research collaborations is based on the fulfillment of performance obligations. Performance obligations for milestones achieved are reported as revenue at a point in time. Since the Group's revenues are of material amount and include significant elements of assessments revenues have been assessed as a key audit matter. For further information on accounting principles for revenue recognition, see note 2 in the annual report of BioArctic AB (publ).

Our audit has included the following audit procedures but were not limited to these:

- Understanding and assessment of the company's routines and controls related to revenue recognition,
- Examination of recognized revenue related to research collaborations and milestone payments against agreements and received payments,
- Examination of project accounting, examination of project expenses and examination of the assessments made by management related to percentage of completion and fulfillment of performance obligations in major research collaborations,
- Examination of valuation regarding assets and liabilities related to revenue,
- Examination and assessment that applied accounting principles are in accordance with IFRS and whether information disclosed in the annual report is in all material respect sufficient in accordance with the Annual Accounts Act and IFRS.

Other Information than the annual accounts and consolidated accounts

This document also contains other information than the annual accounts and consolidated accounts and is found on pages 2-37. The Board of Directors and the CEO are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If we, based on the work performed concerning this information, 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 and the CEO

The Board of Directors and the CEO are responsible for the preparation of the annual accounts and consolidated accounts and that they give a fair presentation in accordance with the Annual Accounts Act and, concerning the consolidated accounts, in accordance with IFRS as adopted by the EU. The Board of Directors and the CEO are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or mistake.

In preparing the annual accounts and consolidated accounts, Board of Directors and the CEO are responsible for the assessment of the company's and the Group's ability to continue as a going concern. They disclose, as applicable, matters related to going concern and using the going concern basis of accounting. The going concern basis of accounting is however not applied if the Board of Directors and the CEO intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

The Audit Committee shall, without prejudice to the Board of Director's responsibilities and tasks in general, among other things oversee the company's financial reporting process.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or mistake, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or mistake 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 annual accounts and consolidated accounts.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual accounts and consolidated accounts, whether due to fraud or mistake, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from mistake, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of the company's internal control relevant to our audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.
- Evaluate the appropriateness of accounting principles used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors and the CEO.
- Conclude on the appropriateness of the Board of Directors' and the CEO's use of the going concern basis of accounting in preparing the annual accounts and consolidated accounts. We also draw a conclusion, based on the audit evidence obtained, as to whether any material uncertainty exists related to events or conditions that may cast significant doubt on the company's and the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the annual accounts and consolidated accounts or, if such disclosures are inadequate, to modify our opinion about the annual accounts and consolidated accounts. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company and a group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the annual accounts and consolidated accounts, including the disclosures, and whether the annual accounts and consolidated accounts represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient and appropriate audit evidence regarding

the financial information of the entities or business activities within the Group to express an opinion on the consolidated accounts. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our opinions.

We must inform the Board of Directors of, among other matters, the planned scope and timing of the audit. We must also inform of significant audit findings during our audit, including any significant deficiencies in internal control that we identified.

We must also provide the Board of Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Board of Directors, we determine those matters that were of most significance in the audit of the annual accounts and consolidated accounts, including the most important assessed risks for material misstatement, and are therefore the key audit matters. We describe these matters in the auditor's report unless law or regulation precludes disclosure about the matter.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the CEO of BioArctic AB (publ) for the year 2019 and the proposed appropriations of the company's profit or loss.

We recommend to the General Meeting of shareholders that the profit be appropriated in accordance with the proposal in the statutory administration report and that the members of the Board of Directors and the CEO be discharged from liability for the financial year.

Basis for Opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibility section below. We are independent of the Parent Company and the Group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our 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 opinions.

Responsibilities of the Board of Directors and the CEO

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the Group's type of operations, size and risks place on the size of the Parent Company's and the group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organization and the administration of the company's affairs. This includes among other things continuous assessment of the company's and the Group's financial situation and ensuring that the company's organization is designed so that the accounting, management of assets and the company's financial affairs otherwise are controlled in a reassuring manner. The CEO shall manage the ongoing administration according to the Board of Directors' guidelines and instructions and among other matters take measures that are necessary to fulfill the company's accounting in accordance with law and handle the management of assets in a reassuring manner.

Auditor's responsibility

Our objective concerning the audit of the administration, and thereby our opinion about discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the CEO in any material respect:

- has undertaken any action or been guilty of any omission which can give rise to liability to the company, or
- in any other way has acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriations of the company's profit or loss, and thereby our opinion about this, is to assess with reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability to the company, or that the proposed appropriations of the company's profit or loss are not in accordance with the Companies Act.

As part of an audit in accordance with generally accepted auditing standards in Sweden, we exercise professional judgment and maintain professional skepticism throughout the audit. The examination of the administration and the proposed appropriations of the company's profit or loss is based primarily on the audit of the accounts. Additional audit

procedures performed are based on our professional judgment with starting point in risk and materiality. This means that we focus the examination on such actions, areas and relationships that are material for the operations and where deviations and violations would have particular importance for the company's situation. We examine, and test decisions undertaken, support for decisions, actions taken and other circumstances that are relevant to our opinion concerning discharge from liability. As a basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss we examined whether the proposal is in accordance with the Companies Act.

Auditor's report on the Corporate Governance Report
It is the Board of Directors who is responsible for the Corporate Governance Report found on pages 51-59 and that it has been prepared in accordance with the Annual Accounts Act. Our review has been conducted in accordance with FAR's auditing standard RevU 16 The auditor's review of the Corporate Governance Report. This means that our review of the Corporate Governance Report is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the review has provided us with sufficient basis for our opinions.

A Corporate Governance Report has been prepared. Disclosures in accordance with chapter 6 section 6 the second paragraph points 2-6 of the Annual Accounts Act and chapter 7 section 31 the second paragraph of the same law are consistent with the annual accounts and the consolidated accounts and are in accordance with the Annual Accounts Act.

Grant Thornton Sweden AB, Sveavägen 20 SE 111 57 Stockholm, was appointed auditor of BioArctic AB (publ) by the General Meeting of the shareholders on the May 9, 2019 and has been the company's auditor since the June 22, 2016. The audit assignment has since November 22, 2000, been held by a public accountant elected in a personal capacity employed by Grant Thornton Sweden AB.

Stockholm, March 31, 2020
Grant Thornton Sweden AB

Mia Rutenius
Authorized public accountant
Auditor in charge

Therese Utengen
Authorized public accountant

Glossary

A

Alpha-synuclein (α-synuclein)
A naturally-occurring protein in the body that, in conjunction with Parkinson's disease, misfolds and forms harmful structures in brain cells.

Amyloid beta (Aβ)
A naturally occurring protein in the brain that, in conjunction with Alzheimer's disease, misfolds into harmful structures in brain cells. They form the plaque around brain cells visible in patients with Alzheimer's disease.

Amyloid PET
A diagnostic imaging method used to identify the presence and prevalence of harmful accumulations of amyloid beta in the brain.

Amyloid pathology
A condition in which harmful accumulations of amyloid beta is the underlying cause.

Antibody
A biological molecule originating in the immune system that binds to a target molecule with a high degree of accuracy.

Arctic mutation
A mutation in the gene for the amyloid precursor protein (APP) that promotes certain hereditary cases of Alzheimer's disease. Discovered by Professor Lars Lannfelt and his research group, and gave the company its name.

B

Biological drugs
Large molecule drugs that are manufactured and extracted, wholly or in part, from biological systems.

Biomarker
A measurable molecule, the levels of which can indicate a change in the body and enable diagnosis of a patient or measurement of the effect of a drug.

Blood-brain barrier
A structure of tightly bound cells that surround blood vessels in the brain. This barrier regulates the exchange of nutrients and waste and protects against bacteria and viruses.

C

Central nervous system (CNS)
The part of the body's nervous system comprising the brain and spinal cord.

D

Double-blind
A method of designing a clinical trial so that both the research subject and staff administering the therapy have no information on whether a drug or a placebo is being administered to the patient.

E

Endpoint
A measurement defined in advance for measuring the effect in a trial.

Effect variable
The parameter(s) measured to assess the result of a research study.

F

Phase 1 study
Primarily studies the safety and tolerability of a drug in a limited number of healthy volunteers or patients.

Phase 2 study
Studies the safety and efficacy of a drug in a limited number of patients. Later stages of Phase 2 studies can be called Phase 2b, and evaluate the optimal dosage of the drug being studied.

Phase 3 study
Studies the safety and effect of a drug in a large number of patients.

I

Immunotherapy
A form of medical treatment in which the activity of the immune system is deliberately activated or moderated.

Indication
A medical condition in conjunction with which the administration of a specific treatment has been approved.

Interim analysis
A statistical analysis conducted during an ongoing clinical trial to evaluate preliminary findings.

Intravenous
Injection of a drug directly into the blood.

L

Lewy bodies
Accumulations of misfolded alpha-synuclein in brain cells. Leads to diseases such as Parkinson's disease and certain dementia-related diseases.

M

Milestone payments
Financial remuneration received as part of a project or collaboration agreement once a specified goal has been achieved.

Monomer
An individual molecule with the ability to bind to other similar molecules to form larger structures such as oligomers (q.v.) and protofibrils (q.v.).

Mutation
A change to genetic makeup – DNA – that could give rise to disease.

N

Neurodegenerative disease
A disease that entails a gradual breakdown and degeneration in brain and nervous system function.

O

Oligomer
Molecules consisting of a number of monomers.

Open label extension study
Clinical trial conducted after a concluded randomized, placebo-controlled study in which all patients receive an active compound.

P

Parallel group study
A study design in clinical studies in which separate groups of participants undergo separate treatments throughout the period of study.

Placebo-controlled
A study design that entails some of the patients receiving an inactive compound to obtain a relevant control group.

Preclinical studies
Studies conducted in model systems in laboratories prior to conducting clinical trials in humans.

Protein
Complex molecules manufactured by the body, consisting of thousands of atoms, often with a biological function.

Protofibril
A harmful aggregation of amyloid beta formed in the brain, which gives rise to Alzheimer's disease, or a harmful aggregation of alpha-synuclein formed in the brain and gives rise to Parkinson's disease.

R

Randomized study
A random division of test subjects into predetermined treatment groups or placebo groups in a clinical trial.

Receptor
Protein structures that initiate a biochemical chain reaction in the body once activated.

Royalty
Remuneration when someone uses or sells a product onward.

S

Selective binding
The affinity of a molecule for binding to a specific receptor.

Signal substance
Naturally occurring molecules that facilitate signaling between two or more separate cells.

Disease-modifying drug
A category of drug that attacks the underlying cause of a disease.

Subcutaneous
Under the skin.

Synapse
The space between two nerve cells.

T

Tolerability
The degree of side effects from a drug that can be tolerated by a patient.

BIOARCTIC

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