

# BioGaia®

ANNUAL REPORT 2018



“OUR JOURNEY  
HAS ONLY JUST  
BEGUN

Isabelle Ducellier, CEO of BioGaia

14 Competence center  
for research and  
development

20 Probiotics  
can prevent  
osteoporosis

28 Contribution  
to sustainable  
development

## COMPANY PRESENTATION

### ► Business mission

BioGaia conducts research and development to offer consumers clinically-proven, health-promoting, patented and user-friendly probiotic products.

### ► Positioning

Dietary supplements with clinically-tested, high-quality probiotics that are sold through pharmacies and similar retail outlets. In most markets the products are recommended by doctors or other healthcare professionals.

### ► Vision

BioGaia's vision is to be a ground-breaking leader in probiotics.

### ► Strategy

BioGaia's strategy is based on five cornerstones: **Growth, Customer Focus, Operational Efficiency, Innovation and Sustainability.**

### ► Values

*My personal commitment is vital for BioGaia's success.*

*We are innovative and action oriented.*

*We are business minded and deliver on our promises.*

*We are honest, respectful and selfless in what we do and say.*

► BioGaia's class b shares are listed on the Mid Cap segment of the Nasdaq OMX Nordic Stockholm exchange.

► Founded in 1990 by Peter Rothschild and Jan Annwall.

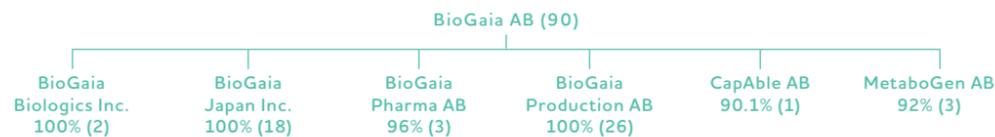
### Annual General Meeting 2018

Wednesday, 8 May 2019 at 16.00 CET  
Kapitel 8, Klara Strand, Klarabergsviadukten 90  
SE-111 64 Stockholm

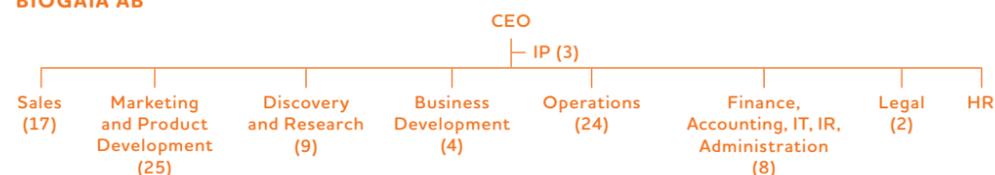
## BIOGAIA ORGANIZATION

(number of employees)

### BIOGAIA GROUP (143)



### BIOGAIA AB



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BioGaia's 2018 Sustainability Report is prepared according to the requirements for sustainability reporting in the Swedish Annual Accounts Act. See pages 28–35 and 45–46 (business risks and uncertainties).

The Annual Report will be published on BioGaia's website [biogaia.com](http://biogaia.com) and a printed version will be distributed to those who have ordered it. The Annual Report can be ordered from BioGaia's head office +46 8 555 293 00 or via [info@biogaia.se](mailto:info@biogaia.se). The year-end reports, annual reports and quarterly reports are published in Swedish and English. This is a translation of the Swedish version of the annual report. In the event of differences, the Swedish version shall prevail.

## Key events during

# 2018

### Quarter 1

Agreement with Abbott for the rights to sell BioGaia Protectis tablets in China

Two additional meta-analyses confirm the positive effect of BioGaia's probiotics for infant colic.

Launch of BioGaia Protectis drops in India.\*

### Quarter 2

Acquisition of an additional 26% in the former associated company MetaboGen which thereby becomes a subsidiary.

Publication of a study showing that *Lactobacillus reuteri* reduces bone loss in older women.

The former Managing Director, Axel Sjöblad, leaves his post.

### Quarter 3

Acquisition of an additional 30% in MetaboGen AB. The shareholding now amounts to 92%.

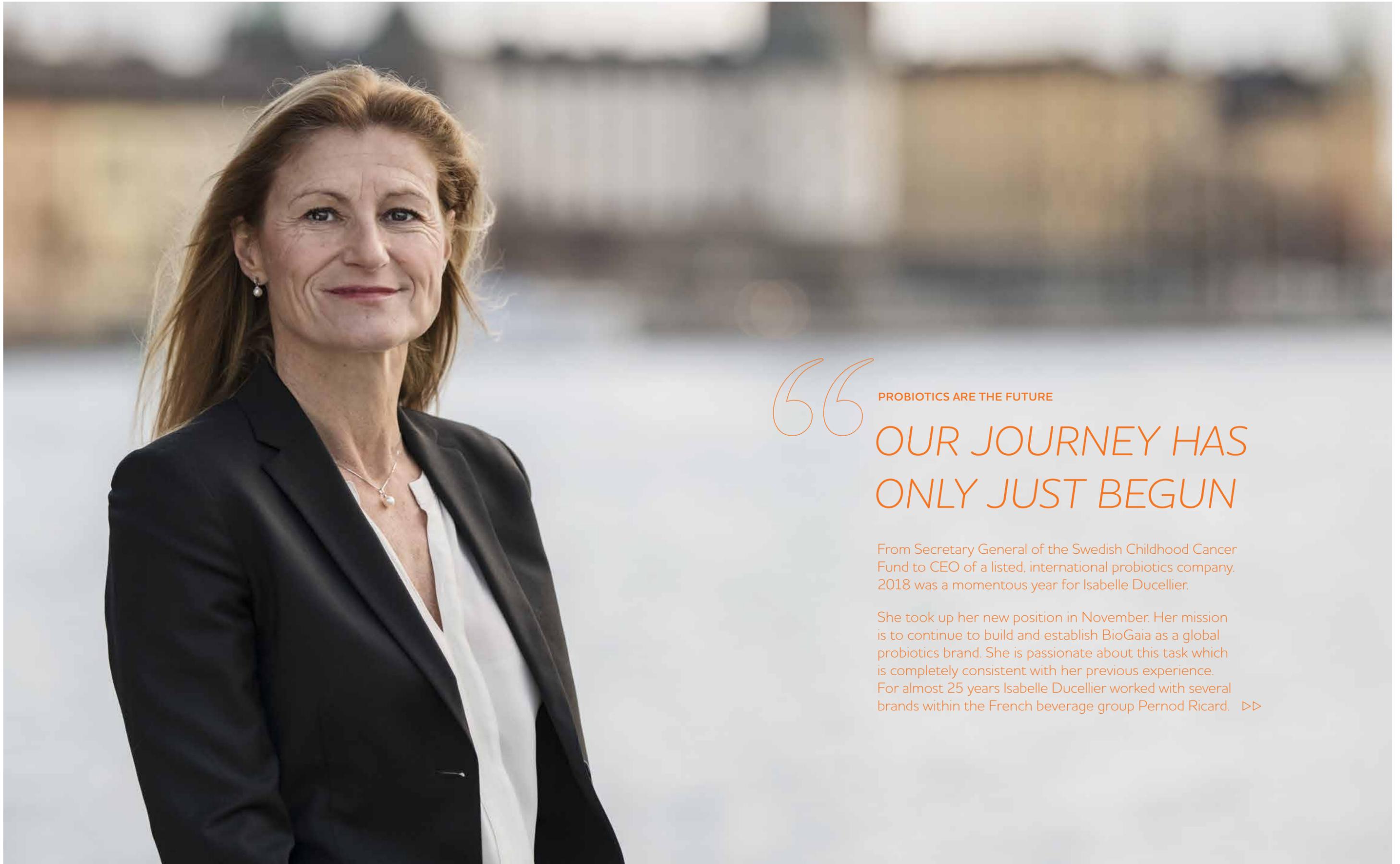
BioGaia's royalty agreement with Nestlé relating to Growing Up Milk for children over one year is renegotiated.

### Quarter 4

MetaboGen's first product ready for a safety study.

Isabelle Ducellier takes over as the new CEO.

\*For other product launches in 2018, see page 42.



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PROBIOTICS ARE THE FUTURE

## OUR JOURNEY HAS ONLY JUST BEGUN

From Secretary General of the Swedish Childhood Cancer Fund to CEO of a listed, international probiotics company. 2018 was a momentous year for Isabelle Ducellier.

She took up her new position in November. Her mission is to continue to build and establish BioGaia as a global probiotics brand. She is passionate about this task which is completely consistent with her previous experience. For almost 25 years Isabelle Ducellier worked with several brands within the French beverage group Pernod Ricard. >>



“BioGaia should be as well-known as some of the brands I worked with previously and an obvious choice for consumers and healthcare professionals.”

Isabelle was born in northern France. After studies in international marketing at the Emlyon Business School, she joined Pernod Ricard in 1991. There she held various leading positions within marketing and sales, not only in France but also in Poland, Germany, Austria and Sweden. At the turn of the millennium, she became the company's Marketing and Sales Director in Sweden and in 2008, when Pernod Ricard acquired the state-owned wine and spirits company Vin & Sprit, Isabelle was appointed CEO of Pernod Ricard Sweden. Her first and key task was to integrate the organizations of these two companies – one French and family-owned and the other Swedish and state-owned.

“I imagined this would go quite smoothly but I soon realized how complicated it was,” says Isabelle. “The French management style is more hierarchical than the Swedish and the French are not afraid of conflict, while Swedes would rather discuss and seek consensus.”

**AFTER HARD WORK** and a lot of patience, a common corporate culture was gradually created. During the process speakers were engaged who described the cultural differences in a humorous way and a model was found that preserves the best aspects of each management style.

“Making decisions based on discussions with various colleagues often results in more sustainable and respected solutions. At the same time, conflicts can be rewarding for airing different opinions,” explains Isabelle.

In 2015, Isabelle felt it was time to move forward in her career and she therefore gained an MBA from Harvard University. At the same time, her 15-year-old son was diagnosed with cancer and it felt totally right for Isabelle

to leave Pernod Ricard and instead focus entirely on caring for her son and supporting him during his treatment. During this tough year at the hospital, Isabelle came into contact with the Swedish Childhood Cancer Fund and in 2017, when her son's treatment was completed, she accepted an invitation to become the Secretary General of the organization.

“The Swedish Childhood Cancer Fund is a professional organization for which I have great respect. For me, being Secretary General was no regular job, it was a way of giving something back for all the help and support we received when my son was undergoing treatment,” she says.

**AT BIOGAIA'S ANNUAL GENERAL MEETING** in April 2018, Isabelle was elected as a member of the Board. When shortly afterwards the then Managing Director Axel Sjöblad left the company, she was invited to take over this position.

“This was a difficult decision since I had only been with the Swedish Childhood Cancer Fund for a relatively short time,” says Isabelle. “But having familiarized myself with the company's operations for my role on the Board, it felt right. The organizational culture matches my own values and I am fascinated by BioGaia the company, the products and the entire sector. I am convinced that we have only just begun our journey with probiotics. Furthermore, I have many years' experience of marketing and am passionate about building strong brands. Its research focus makes BioGaia a competent and serious player in the growing, global probiotics market. The potential is enormous and I believe that BioGaia should be as well-known as some of the brands I worked with previously and an obvious choice for consumers and healthcare professionals – a challenge that I am ready to take on.”

## WE CONTINUE TO INCREASE OUR MARKET SHARES

**2018 was yet another year of strong growth for BioGaia, with annual sales reaching a record-high SEK 742 million. As the new CEO, I am taking charge of a business with a positive trend – and with major potential.**

During the year sales increased by SEK 127 million, which represents growth of 16 percent after foreign exchange effects. Our growth continues to outpace the market which is expected to grow by approximately 10 percent per year. The key to our success year after year is our business model where BioGaia is the hub of an international network within research, production and distribution.

In the Pediatrics segment sales of our key products, BioGaia Protectis drops and tablets, continue to grow. At the same time we see strong development for the Adult Health portfolio where sales of Gastrus and Prodentis in particular saw strong growth during the year, although from low levels. This performance strengthens our vision of being a probiotics company for people of all ages.

**WE ALSO CONTINUE TO BUILD OUR BRAND** and during the year we could see that sales of products under our own brand are rising. In EMEA, France and several countries in Eastern Europe are examples of markets that sell under the BioGaia brand and where development was very positive during the year. In the Americas as well we see that partners who sell under the BioGaia brand or with co-branding showed strong growth during the year. In the USA, growth is especially high for online sales of our drops. Online sales in China, which mainly comprise drops sold under the BioGaia brand, also increased during the year. In addition, our subsidiary in Japan reported good sales development primarily for the oral health product Prodentis.

**IN 2016 WE LAUNCHED A STRATEGY** which guides our activities based on five cornerstones: **Growth, Customer Focus, Operational Efficiency, Innovation and Sustainability.** This gives BioGaia total strategic control of everything along the entire value chain – from bacterial strains to finished consumer products.

For **Growth**, the focus in 2018 was on expansion of the existing portfolio in both already established and new markets.

**Customer Focus.** In order to get closer to our partners in Asia, we opened an office in Singapore in the past year, in the same way as we opened an office in Miami in 2017. We also launched BioGaia Academy, a totally new educational platform where we train doctors from around the world and thereby increase the number of well-informed opinion leaders.

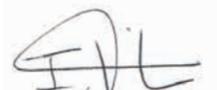
Implementation of the new ERP system – which will strengthen **Operational Efficiency** – started towards the end of the year.

In **Innovation**, 2018 was an intensive year with some 55 ongoing studies, the acquisition of the research company MetaboGen (read more on page 22), the startup of our new laboratory in Eslöv and new research collaboration at our Center of Excellence in Mexico and with doctoral students (read more on page 25).

Within **Sustainability** the Foundation to prevent antibiotic resistance, set up by BioGaia at the end of 2017, awarded its first grants to researchers at the Karolinska Institute and Uppsala University. During the year it was also decided to employ someone to be responsible for our sustainability initiatives. Recruitment to this position is underway.

Our operating expenses increased by 25 percent in 2018. We invest heavily in research and development, including investments in our subsidiaries BioGaia Pharma and MetaboGen as well as in research projects, clinical studies and product development. We have also increased our investment in marketing activities in countries including Italy, Brazil and Sweden. This higher level of activity also requires additional staff and during the year the number of employees increased by 23, including ten at BioGaia Japan and three through the acquisition of MetaboGen.

**DURING 2019** I expect continued investments to drive market growth, maintain a strong research program and further strengthen our brand. I look forward to an exciting year!

  
Isabelle Ducellier,  
CEO of BioGaia



## BIOGAIA'S POTENTIAL KEEPS GROWING

**BioGaia has just completed yet another highly successful and profitable year. Our products are timely and by pursuing a long-term strategy based on serious research and development with marketing primarily aimed at healthcare professionals, we have created a successful international brand that stands out in the probiotic market. We are now building further on this strategy and the brand we have created.**

Research and development within the probiotic segment is increasing almost exponentially. New technology that allows fast and inexpensive analysis of the gene expression of microorganisms within and on the body, lies behind this explosion.

A number of significant license agreements have been signed by companies within the area called the microbiome segment. The microbiome is the aggregate gene expression of the microorganisms found in the gastrointestinal tract, on the skin and other parts of the body. New bacterial strains and clusters of strains that emerge through this research are the next step in the development of probiotics, designed to solve increasingly advanced health problems.

Another significant change is that marketing to consumers via the Internet is rapidly increasing in importance.

Taking these two trends into account, in recent years BioGaia has focused on benefiting from the new technology and digital marketing opportunities.

**IN 2014, BIOGAIA MADE ITS FIRST** investments in MetaboGen, which conducts research and development on the microbiome area in collaboration with Fredrik Bäckhed's research group at the University of Gothenburg and Jens Nielsen's research group at Chalmers University of Technology. During the past year, we acquired additional shareholdings in MetaboGen and BioGaia now owns 92 percent of the company. We have also decided to invest further in the research being conducted at the two institutions. BioGaia is thus well positioned in a field that is regarded as red hot in terms of both research and commercial potential.

We are also actively engaged in building up our expertise within digital marketing as a complement to our traditional

marketing to the healthcare sector. Our new CEO, Isabelle Ducellier, also provides sound knowledge within consumer marketing. Isabelle has been participating in the work of the Board since the 2018 Annual General Meeting and therefore got off to flying start and has quickly familiarized herself with the company's activities.

### **SUSTAINABILITY HAS BECOME A BUZZWORD**

but for BioGaia long-term sustainability has been a key strategic component for many years. Our goal is to improve human health and to do so in a manner that is sustainable over time. We will be doing even more in this area and also be better at communicating what we do. This is a key part of building the BioGaia brand.

In 2016, BioGaia distributed all its shares in the subsidiary IBT, which develops a drug for premature infants, to its shareholders. IBT was listed on Nasdaq First North and is today quoted on the Nasdaq Stockholm Mid Cap list. Market value today is approximately SEK 1.5 billion. The background to IBT's spin-off from BioGaia's core business is that drug development is completely different from the development of dietary supplements in terms of competencies and risk levels.

In 2017 we formed the subsidiary BioGaia Pharma as a complement to BioGaia's core business within dietary supplements, for products which, just like the IBT product, for various reasons are more suitable to be classified as pharmaceuticals. The intention is for BioGaia Pharma to conduct projects to a comparatively early stage after which they can be licensed to a pharmaceutical company. Through the establishment of BioGaia Pharma we can commercialize probiotic products regardless of regulatory category.

**IN VIEW** of our involvement in MetaboGen and BioGaia Pharma, the continued focus on the BioGaia brand, sustainability and consumer marketing, I am convinced that we have laid the foundation for a continued successful and profitable business.

Peter Rothschild,  
Board Chairman of BioGaia

# GLOBAL CHALLENGES AND OPPORTUNITIES

*Developments in society and global change affect how people view health as well as opportunities for doing business. BioGaia works in close collaboration with researchers, suppliers and distributors to create value for stakeholders.*



## CONSUMER AWARENESS

Consumers and other stakeholders will increasingly assess companies from a sustainability perspective. For example, consumers will want to know where products originate and whether they are produced in an ethical and sustainable manner. This requires a company like BioGaia to be transparent about where it stands and its sustainability initiatives. Together with distributors in each market, it is also essential to ensure that information and knowledge are available on the consumers' terms.

BioGaia strives to be a sustainable producer of probiotics. The aim is to accept responsibility and take sustainability risks into account throughout the value chain – from supplier, via distributor, to consumer. Among other things, efforts are being made to reduce the quantity of material used and increase resource efficiency, have a safe production, safe products and an ethical approach in everything from research to business relations and marketing.



## INCREASED ILLNESS AND GROWING INTEREST IN HEALTH

As the Western lifestyle spreads around the world, physical and mental ill health are increasing. More and more people are becoming ill as a result of stress, a sedentary lifestyle and an incorrect diet. At the same time, interest in health and health products is increasing globally. Sectors such as organic food and dietary supplements are expected to continue to see strong growth. Consumers are also seeking more and more information for themselves, on the Internet for example, about preventive healthcare.

BioGaia's probiotics contribute to health and well-being for people in 100 countries worldwide. Today focus is on digestive and oral health, but the areas of use expand in pace with the establishment of research in new areas.



## DEMOGRAPHIC CHANGES

As the world's population grows and ages, interest in health also increases. According to the UN the world population is expected to increase by one billion people to reach 8.6 billion by 2030. Of this billion, 300 million are expected to be over the age of 65.

The main global population increases in the next few years will take place in Africa, Asia (excluding Japan), Latin America and the Caribbean. In Japan, North America and Western Europe, the birth rate is falling while the population is aging.

BioGaia's largest segment today is Pediatrics and while Europe is still the biggest market, expansion in both Asia Pacific and the Americas continues. In the Adult Health segment, BioGaia is well positioned for growth with products within digestive health and oral health. A large number of clinical studies with BioGaia's bacterial strains are underway and new indications, such as the prevention of osteoporosis, provide the basis for continued product development.



## ANTIBIOTIC RESISTANCE

According to the World Health Organization, WHO, antibiotic resistance continues to increase and threaten effective treatment of common infectious diseases. One way to lower the use of antibiotics is to reduce prescriptions for viral infections such as colds, influenza and mild respiratory tract infections, where antibiotics have no benefits anyway. Another way is preventive work. If fewer people become ill, or have milder symptoms, the use of antibiotics can be reduced. This has been shown in studies with BioGaia's *Lactobacillus reuteri* Protectis strain. During the year a study was also published in the European Journal of Public Health which shows a correlation between intake of probiotics and a reduced need for antibiotics among children. By strengthening the immune system, probiotics can therefore play a key role in the fight against antibiotic resistance.

In the past decade, extensive research efforts, in particular the National Institute of Health (NIH) Human Microbiome Project, have determined that the microbiome is central for among other things the immune system and could play a major role in preventing or treating diseases. Here BioGaia's research is at the leading edge through the subsidiary MetaboGen.

[Read more about MetaboGen on page 22](#)

203 clinical studies have been carried out so far. The results have been published in 180 articles in scientific journals as well as 14 doctoral theses.

## RESEARCHERS

BioGaia collaborates with researchers at some 50 universities and clinics in a unique, global network. All studies must have ethical approval and BioGaia encourages researchers to publish their results but otherwise has no influence on the studies.

180 Articles

## CONSUMERS

BioGaia contributes to improved well-being with probiotic bacteria that make a difference to digestive and oral health. The products are safe and clinically tested, of high quality and sold in smart packages.

80% Pediatrics

## PATENTS

BioGaia has 488 patents in 32 patent families. The company has registered trademarks in 70 countries in addition to the EU and owns 76 Internet domain names.

488 Patents

## EMPLOYEES

BioGaia offers its employees a stimulating workplace with a culture in which each individual has an opportunity to develop and influence his or her work situation. A good balance between work and leisure lays the foundation for the long-term health of employees.

143 Employees in the Group

## DISTRIBUTION PARTNERS

BioGaia builds long-term partner relationships with distributors who are present where the products are sold. BioGaia supports distributors within sales and marketing.

80 Distribution partners

## SHAREHOLDERS

As a result of good risk management, integrated sustainability initiatives and controlled costs, BioGaia will increase shareholder value and continue its profitable growth through its strong business model.

21% Growth 37% Operating margin

# BIOGAIIA CREATES VALUE

1 Bacteria with human origins

2 Good products in smart packages

3 Flexible business model with three global networks

4 Scientifically-based claims

5 Partnerships with strong local distributors

6 Contribution to sustainable development



# 1

Bacteria with human origins



## COMPETENCE CENTER FOR RESEARCH AND DEVELOPMENT

The BioGaia Center of Excellence is taking shape in Eslöv, a unique cross-functional laboratory where internal employees work side-by-side with doctoral students and other external researchers. The aim is to create synergies, increase skills and quality assure the development of new products.

Research on bacteria and their significance for our health has exploded in the past decade and is now one of the hottest research areas. At Bio-Gaia, research on *Lactobacillus reuteri* has been taking place for almost 30 years. A unique network of specialists at around 50 research institutes and clinics studies not only the effectiveness of *Lactobacillus reuteri* for various indications but also how and why it works.

“In 2019 we will be some 20 people, including a doctoral student employed by BioGaia, attached to the Swedish University of Agricultural Sciences in Uppsala, and two doctoral students employed by Lund University.”

Carin Linde, Director Analytical Development at BioGaia Center of Excellence

**IN RECENT YEARS** this work has been extended to cover the entire product lifecycle. This involves not simply understanding how the probiotic strains work but also understanding critical properties of raw materials and finished products, as well as key process parameters to guarantee the best quality and stable production.

For this purpose a cross-functional laboratory has been set up with different skills within Discovery and Research, Analytical Development, Process Development and Product Development. The BioGaia Center of Excellence works with the entire product lifecycle, from concept to finished product on the pharmacy shelf. One focus area is the study of individual bacteria in order to understand them and find new strains for new indications. Another area is to look at processes and how these can be improved so that products keep better for example. Research within product development is also a priority. Here the aim is to develop user-friendly formulations that customers want. Depending on the target group and market this might be chewable tablets, capsules or oil drops.

“**QUALITY IS A KEYWORD** in everything we do,” says Carin Linde, Director Analytical Development. “We have quality-assured analysis methods to guarantee product quality and standard operating procedures for different processes. We also only have staff with the right skills and

relevant academic education and carry out regular checks on equipment and premises.”

Work is currently in progress to further renew and complement the equipment. Among other things, in the future it will be possible to carry out several types of analyses and other investigations in the laboratory instead of outsourcing such work to external laboratories.

“This improves control, of course, but above all it provides us with valuable skills,” says Carin. “We have the possibility to manufacture products on a small scale and with the

new analysis instruments we will be able to carry out the first tests on these ourselves.”

**DURING 2019** personnel from Discovery and Process Development will start to work onsite full time. This cross-functional working method, where different skills work side-by-side and in common projects, means that different operations get even closer to each other.

“With employees from different departments, industry doctoral students and external researchers gathered under one roof, who can exchange ideas and inspire each other, I think we will gain a better overall understanding and thus more efficient working methods. In time this will hopefully lead to more innovative products. It will be very exciting to follow the development of our competence center,” Carin concludes.



2

Good products  
in smart  
packages



In 2019 BioGaia will launch two new products in capsules

## FOCUS ON THE BRAND

**The strategy of investing in consumer products sold under BioGaia's own brand has been given increased focus and the goal is to continuously raise the proportion of BioGaia-branded products. Key to this strategy is that the products have consistent high quality, are safe to use and are manufactured in a responsible manner.**

The new graphic profile for packaging which was created in 2016 is now being implemented by partners around the world. The goal is for all partners using BioGaia's brand to have adopted the new design on their packaging by mid-2019. At the same time further adjustments are being worked on to create even more consumer-friendly packages.

**BIOGAIA'S PRODUCTS** are sold in 100 countries. Pediatrics accounts for approximately 80 percent of total sales and Adult Health for 19 percent. Other revenue accounts for one percent. BioGaia Protectis drops are still the largest product with sales in some 90 countries. Other important products in the Pediatrics area are Protectis drops with vitamin D, oral rehydration solution and tablets. The most common areas of use for children and infants are colic, constipation and diarrhea. In Adult Health, tablets for gut health and oral health are the largest products. The primary indications for these products are general digestive health, constipation and, within oral health, gingivitis and periodontitis.

**THE CORE OF BIOGAIA'S BUSINESS** is clinically-tested, health-promoting, patented and user-friendly probiotic products. Product responsibility – from research to end customer – is key for the BioGaia brand.

BioGaia's product developers have worked to find alternatives to palm and palm kernel oil. They have now succeeded in developing the production process and the aim is to launch palm oil free tablets in 2019. Development continues with other products with the goal that all BioGaia's products will be palm oil free in all markets by 2023.

Until all markets have switched to palm oil free products, BioGaia will continue to only purchase palm oil from suppliers who are members of Roundtable for Sustainable Palm Oil (RSPO) and thus support production of sustainable palm and palm kernel oil.

**WORK IS ONGOING** to review existing packages and BioGaia is evaluating various alternatives to reduce environmental impact, including renewable material. However, it is a challenge to find environmentally friendly material and packages which both meet safety requirements and have the other properties needed to protect product quality. The aim is that all BioGaia's packages will be completely biodegradable within five years.

Increasing the proportion of products sold under the BioGaia brand is a key component of BioGaia's strategy. Today products are sold under the BioGaia brand or co-branded in more than 80 markets.



# 3

Flexible business model with three global networks



## BUSINESS MODEL FOR SUSTAINABLE GROWTH

**BioGaia's business model is based on long-term relationships in three external networks – research, production and distribution.**

**IN RESEARCH THERE IS COLLABORATION** with some 50 research institutes and clinics worldwide. Many of the researchers are among the foremost in their field. Some collaborations have been ongoing since BioGaia was founded, others are newer. At present some 55 studies are in progress around the world.

**THE PRODUCTS ARE MANUFACTURED** and packed in six different facilities in Sweden, Denmark, Belgium, Spain and the USA. Long-term and close collaboration with suppliers means that production and logistics are continually improved and can be adapted to market needs as well as new demands for sustainability.

Suppliers – above all the wholly-owned subsidiary BioGaia Production – are also key partners in product development, both when creating new products and further developing existing ones.

During 2017 BioGaia's purchasing department started work on getting all producers and suppliers of cultures, raw materials and analysis services to sign up to the company's Code of Conduct. At the end of 2018 all suppliers of production and packaging had signed up to the Code and among suppliers of analysis services 85 percent had signed or were in the process of doing so.

**THE DISTRIBUTION NETWORK CONSISTS OF** some 80 partners with sales in about 100 countries. Most of these distributors have sales representatives that visit doctors and other healthcare professionals. By providing

information on the published results of clinical trials they build up interest and confidence among doctors who then recommend the products to their patients. In parallel with targeting healthcare professionals, the distributors ensure that the products are available in pharmacies, the main sales channel that healthcare professionals recommend to their patients.

Some distributors have also worked for a long time with marketing direct to the consumer. This is something that a growing number of partners see as an important complement going forward, especially since sales to an increasing extent will take place through digital channels. However, the difference in maturity in different markets varies widely. Among the countries where BioGaia operates, the USA and China have made the greatest progress with digital marketing and e-commerce.

In most markets BioGaia's products are registered as dietary supplements. BioGaia's regulatory specialists collaborate with the distributors' experts to ensure compliance with local regulations.

BioGaia has also developed a Code of Conduct for distribution partners and work on getting signatories started in 2018. Of the some 80 partners, almost 40 percent have signed the Code and the others are in the process of doing so. The aim is that all partners should be signatories by 2020.

**BioGaia's Code of Conduct specifies minimum requirements and covers areas such as respect for human rights, work environment and workplace safety as well as environmental issues and business ethics/anti-corruption.**

4

Scientifically-  
based claims

203

clinical studies have been carried out to date, including 20 in 2018. Results have been published in 180 articles in scientific journals and 14 doctoral theses (January 2019).

17,200

individuals of all ages have taken part in clinical studies with BioGaia's human strains of *Lactobacillus reuteri*.

## PROBIOTICS CAN PREVENT OSTEOPOROSIS

The study of the effect of probiotics on bone density was conducted at the University of Gothenburg on 90 older women with osteopenia (low bone density). Over a period of one year the women received a daily supplement of the probiotic *Lactobacillus reuteri* ATCC PTA 6475 or a placebo. The study was led by Mattias Lorentzon, Professor of Geriatrics at the University of Gothenburg and Sahlgrenska University Hospital.

"This study provides the first evidence that age-related bone loss can be reduced with probiotic supplementation, which could become a new method for preventing osteoporosis," says Mattias Lorentzon.

**THE WOMEN IN THE STUDY** had low bone density without having osteoporosis. Bone density reflects bone strength and was measured with computer tomography of the lower leg before and after the 12-month treatment. The results showed that the women who had received a supplement of *Lactobacillus reuteri* had lost only half as much bone density as those given a placebo.<sup>1</sup>

The strain *Lactobacillus reuteri* ATCC PTA 6475 has previously shown positive effects on laboratory animals, including mice. But this study is the first time positive results have been shown in humans. The hope is that this discovery can lead to preventive treatment against osteoporosis in the future.

"It is unbelievably exciting to be able to affect the human skeleton with health-promoting bacteria. We know that these bacteria occur naturally in the gut and with this treatment we affect the levels of bacteria," says Mattias Lorentzon.

**OSTEOPOROSIS IS A CONTRIBUTORY FACTOR** to tens of thousands of fractures annually and most of those affected are women. Up to 50 percent of older women suffer fractures and many have osteoporosis without realizing it. Often fractures are the first sign and with preventive treatment these could be avoided.

Currently there are various types of drugs which reduce the breakdown of bone or stimulate build-up. However, the medicines are only given to those who have already been diagnosed with low bone density and there is no preventive treatment.

"That *Lactobacillus reuteri* ATCC PTA 6475 has been shown to reduce bone loss in this group is therefore very promising. We hope that further studies will confirm the results, so that this new way of maintaining good bone health and thereby reducing the risk of fractures in old age can be of use both for the individual and for society," says Kristina Magnusson Borg, Vice President Discovery and Research at BioGaia.

Additional and longer studies are planned to see if the probiotic can have a cumulative effect. In parallel, BioGaia's product developers are working on creating a product using the strain and dose that were used in the clinical studies.

<sup>1</sup> The women who were given a placebo lost an average of 1.85 percent of bone density while those who received probiotics only lost 0.83 percent.

### OSTEOPOROSIS

Osteoporosis means reduced bone density and structural deterioration of bone tissue which lead to bone fragility and increased risk of fractures. Two-thirds of those affected are women. Incidence is higher in Scandinavia than in other parts of the world. Osteoporosis contributes to between 70,000 and 80,000 fractures annually in

Sweden alone. Half of all women and every fourth man will suffer a fracture in their lifetime. The greatest risk factors for fracture are old age, previous fracture, low bone density and heredity, while diet plays a lesser role. Other risk factors include a sedentary lifestyle, smoking, excessive alcohol consumption and eating disorders.

Some medical conditions such as liver disease and rheumatism can also affect the incidence of fractures. In women, estrogen plays a decisive role. When estrogen levels fall at the menopause, bone density falls more quickly in women, with the greatest reduction in the first ten years after the menopause.



## Research on next generation probiotics

During the year BioGaia's subsidiary MetaboGen has made new advances in its project to develop the next generation of probiotic products. With an increased stake in the company, BioGaia further strengthens its position at the forefront of research.

In two steps in 2018 BioGaia acquired further shareholdings in the research company MetaboGen. The most recent means that ownership is now 92 percent, with an option to acquire the remaining eight percent. The investment in MetaboGen is long-term and gives BioGaia a stable platform for continued research on the microbiome.

### METABOGEN FOCUSES ON THE MICROBIOME.

a research-intensive and fast-growing area which is about finding patterns in the microbiota which can be associated with various diseases. The aim is to identify specific bacteria strains which can be beneficial in the treatment of for example metabolic diseases.

"This is about bacteria that are not found in products today and which we therefore call next generation probiotics. Our operations are a complement to BioGaia's with MetaboGen working with new strains of bacteria and often in other indication areas than BioGaia. The products

can take the form of dietary supplements, pharmaceuticals or so-called FSMPs (Food for Special Medical Purposes). Which route we choose depends partly on which disease we are targeting," says Sara Malcus, CEO of MetaboGen.

Having BioGaia as a majority shareholder puts MetaboGen in a bigger context at the same time as it strengthens BioGaia's position within probiotic research. It also enables BioGaia to have a closer collaboration with Gothenburg University and Chalmers University of Technology in the microbiome area through MetaboGen's founders Fredrik Bäckhed and Jens B Nielsen. The companies will be starting a number of research projects in the future.

"As a small company there is, of course, greater security in having a long-term owner such as BioGaia. But there are more synergies between our companies. MetaboGen can take advantage of BioGaia's long experience within production and product development while BioGaia gains access to new research and technology at the leading edge of the next generation of products. It is a perfect match," says Sara.

MetaboGen is currently running three main development projects. The project within metabolic diseases is the

“MetaboGen can take advantage of BioGaia's long experience within production and product development while BioGaia gains access to new research and technology at the leading edge of the next generation of products.” Sara Malcus, CEO of MetaboGen

most advanced. Two strains from the human microbiome, *Faecalibacterium prausnitzii* and *Desulfovibrio piger*, have been investigated regarding properties, safety and antibiotic susceptibility. MetaboGen has developed a unique production technology which allows the oxygen-sensitive bacteria strains to survive in a commercial product.

**“METABOGEN HAS A FIRM FOUNDATION** in metabolic diseases through our founders and we have developed a new product which is approved for a first human safety study. The clinical study started in October – a milestone for MetaboGen,” says Sara. Future products will hopefully be usable for diseases such as type 2 diabetes, gestational diabetes and non-alcoholic fatty liver disease.

MetaboGen has also started development in collaboration with Ferring Pharmaceuticals of a probiotic pharmaceutical against intrahepatic cholestasis of pregnancy. This disease affects some 400,000 pregnant women annually worldwide and is not only stressful for the expectant mother but may also cause serious health problems for the unborn baby. A clinical study is ongoing with some 100 pregnant women in Stockholm and Lund.

“The third big area we are working on is investigating how the gut microbiota can be used to improve the response to some drugs, for example against cancer, or prevent side-effects,” says Sara. “Our analytical tool MeduzaGen allows us to analyze the gut microbiota of patients and identify possibilities for improved response to treatment.”

**METABOGEN HAS ALSO INITIATED** a project together with BioGaia to develop a product that can be administered together with, or after, antibiotic treatment to restore the balance in the gut microbiota.



### METABOGEN

MetaboGen was founded in 2011 by Professor Fredrik Bäckhed, University of Gothenburg and Professor Jens B Nielsen, Chalmers University of Technology, together with GU Ventures which commercializes research

results and develops companies associated with the University of Gothenburg. As well as assignments from BioGaia, MetaboGen collaborates with Ferring Pharmaceuticals and has a number of patents and pending

patents in the microbiome field. The company has a laboratory in Gothenburg where development of new probiotic strains takes place.



## GLOBAL PRESENCE – LOCAL TOUCH

**The global market for probiotics as dietary supplements is estimated to amount to SEK 45-50 billion annually. The market continued to grow in 2018. BioGaia noted good growth in all three regions: Americas, EMEA and Asia Pacific.**

The strong growth is underpinned, among other things, by increased awareness of and interest in health. Population growth, which among other things is caused by a higher birth rate and increased longevity, combined with new indication areas for probiotics also contributes to good growth.

*“We believe that the products will be of special interest for infants and the elderly.”*

Urban Strindlöv, Vice President Sales BioGaia

“Application areas for probiotics are increasing and we have the possibility to develop new products which strengthen the immune system and can prevent osteoporosis, for example. We believe that the products will be of special interest for infants and the elderly and we want to establish BioGaia as a brand for a whole lifetime – ‘stay healthy throughout life.’” says Urban Strindlöv, Vice President Sales.

**BIOGAIA'S BUSINESS MODEL**, built on long-term partnerships with local distributors, is one of the company's strengths. This method of working stands out in the industry and thanks to a well-developed partner network a relatively small company such as BioGaia can have global distribution which makes our products available in some 100 countries worldwide.

“We work deliberately with regional partner meetings where we hold briefings and workshops and encourage networking between our partners. They are our extended BioGaia family and a significant part of our culture.” says Urban.

From having had most sales in Europe, BioGaia has achieved a broader spread of sales and now has significant operations in both Asia Pacific and the Americas. The two most exciting markets in the world right now are the USA and China. Both have good growth potential but present different challenges.

“The USA is the largest market for probiotics in the world, but it is also a market in transition where the main growth is in digital channels. It is critical that we keep up with this development when choosing new partners and deepening existing collaborations. The Chinese market has extremely tough regulatory requirements and long, cumbersome

processes for the approval of products which present a challenge to launching new products in the market.” says Urban.

BioGaia has a strong strategic focus on developing regions and in pace with the growth of the partner network the need for closer collaboration with the local distributors has increased.

“Our new regional offices will provide critical support in daily contacts with our partners. The office in Miami was set up in 2017 and in the summer of 2018 we opened an office in Singapore. Both are strategically placed as hubs for

continued growth. The offices will focus on supporting our partners within sales, marketing and research collaborations.” says Urban.

**MOST OF BIOGAIA'S SALES** are based on doctors' recommendations to patients to use the company's products. BioGaia therefore works actively building networks of opinion leaders in the area and teaching them about the products and their applications.

“In many of our markets we conduct lecture tours, primarily for doctors, with our partners where distinguished researchers participate and present the results of clinical studies with BioGaia's probiotic products,” concludes Urban. “This is the single most important method for us to credibly increase interest in our products and establish BioGaia as a strong brand worldwide.”



**5 Partnerships with strong local distributors**

## AMERICAS

### Sales successes across the board

**2018 was a very good year in the Americas with record sales in both North America and Latin America. In total, sales rose by 38 percent in the region.**

BioGaia's focus markets in the Americas are the USA, Brazil and Mexico based on their size and growth potential. BioGaia's regional office in Miami was set up in 2017 and supports the local distributors with its presence.

"The driving forces for sales in the US market differ from the others. Most of the significant competitors have large marketing budgets aimed directly at consumers. We still think that our business model, which is based on doctors recommending the products to their patients, is the most sustainable in the long term," says Cristián Contreras, Vice President Americas.

In the US market BioGaia works with two partners. The smaller of these, Everidis, sells the complete BioGaia range under the BioGaia brand, mainly via e-commerce. Gerber sells BioGaia's

drops under their own brand through pharmacies and to some extent e-commerce. Both increased sales of BioGaia's products significantly during the year. Underlying this increase was primarily the launch of different formats for drops and further launches are planned for 2019 and 2020.

Latin America also achieved record sales in 2018, mainly thanks to very good development for BioGaia's Brazilian partner Aché and increased marketing activities. Abbott in Chile, Peru and Central America also increased sales.

“There is considerable interest from specialists for our projects, research and working methods.”

Cristián Contreras, Vice President Americas

In Mexico, too, a populous country with a high proportion of children, BioGaia has worked with Abbott for a number of years. In this competitive market BioGaia succeeded in increasing sales with support from Abbott's expertise and a strong focus on medical marketing.

The long-term effort to build a network of opinion leaders in the region continues. This method has been very successful in Latin America where BioGaia works with LASPGHAN (Latin American Society for Pediatric Gastro-



enterology, Hepatology and Nutrition) to broaden the network and create trust in the brand.

"There is considerable interest from specialists in our projects, research and working methods. Our ambition is to also further strengthen the network in the USA in collaboration with the corresponding North American organization, NASPGHAN," concludes Cristián.

Greece, also launched BioGaia Gastrus during the year.

"Growth in these mature markets is a challenge. Collaboration with the partner network is key, as is retaining our business model built on professional recommendations of the products. Here work with opinion-leading specialist doctors is a key to success. At the same time we must find new ways to communicate directly with other healthcare professionals and parents. In France, Turkey and Spain, in collaboration with

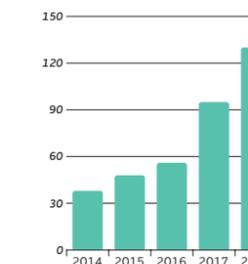
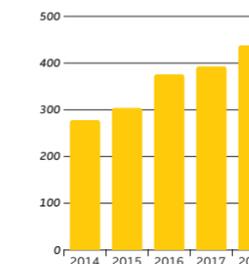
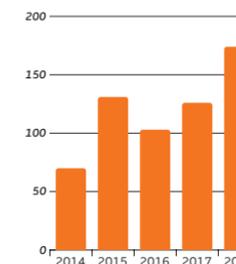
our partners, we have set up blogs and parent websites to communicate directly with parents, doctors and midwives. Marketing activities have also increased in Sweden together with our partner Medhouse and are aimed at strengthening BioGaia's position in the Adult Health segment," says Ana Pérez Sanz, Vice President EMEA.

"In Finland we experienced tough competition during the year and price pressure in the Adult Health segment which affected sales of Protectis tablets. We

will work together with our distributor, Verman, to recapture market share in the future," says Ana.

In BioGaia's newer markets, such as Middle Eastern countries and Kenya, activity has increased and there is now considerable interest in the products. Here BioGaia has chosen from the outset to launch several of the company's products on a broad front and to different target groups in order to improve the possibilities for growth.

### SALES BY GEOGRAPHIC MARKET, SEKm



## ASIA PACIFIC

### Great potential in new and existing markets

**Sales in Asia Pacific rose by 36 percent, mainly driven by strong sales in Japan and of BioGaia's drops in existing markets and launches in new ones. The new regional office in Singapore, which opened in 2018, will support BioGaia's partners through increased presence.**

Asia Pacific is a market with good potential for BioGaia.

The region has a mix of mature and brand new markets. The main focus is on Japan, China and India. A growing partner network means that the need for closer collaboration has increased. The regional office which opened in Singapore in June 2018 is strategically placed in proximity to several key markets.

Japan is BioGaia's largest market for oral health products. Consumer interest is considerable and BioGaia has an established sales organization which visits dental clinics. This method

of working provides valuable first-hand information on how the products are used and experienced. BioGaia's partner Kabaya Ohayo markets BioGaia's products to consumers, pharmacies and grocery stores.

"The Indian market has considerable potential. During 2018 our partner Dr Reddy's launched BioGaia's drops. The company carried out a comprehensive and ambitious launch program with events to which opinion-leading pediatricians were invited. Dr Reddy's ambition is to establish our products in segments in addition to diarrhea," says Jonas Weimer, Vice President Asia Pacific.

“The Indian market has considerable potential.”

Jonas Weimer, Vice President Asia Pacific

BioGaia has been in the Chinese market since 2014 but sales of drops took off in 2018. The business model is based both on e-commerce and on BioGaia's partner, Sunflower, working to spread awareness of the products among hospital staff and to link more doctors to the network of opinion leaders.

"However, the Chinese market is difficult to work in from a regulatory viewpoint and we are still waiting for approval for Protectis tablets," says Jonas.



Among new markets, Australia deserves a mention. In 2018 BioGaia re-launched Protectis tablets there under our own brand in collaboration with bWellness and BioGaia's drops have been sold co-branded by Nestlé since 2017. BioGaia has also started collaborations with distributors in Myanmar and Mongolia.



## EMEA

### Increased direct-to-consumer marketing efforts

**Sales in EMEA increased by 11 percent, mainly driven by products within the Pediatrics segment. Sales were especially good in Eastern Europe, Belgium and France. The markets are very different as are the drivers and growth potential.**

“Collaboration with the partner network is key, as is retaining our business model built on professional recommendations of the products.”

Ana Pérez Sanz, Vice President EMEA

EMEA is BioGaia's most established and largest market and accounts for almost 60 percent of total sales. There is broad geographic coverage with a presence in 45 countries and partner relationships are often

lengthy and well-established. BioGaia's products have a strong position in Eastern Europe, Italy, Spain and South Africa, among others.

BioGaia has worked hard on broadening the range and many launches were made during 2018. Among other things the vitamin D range was launched in countries such as Italy, Belgium and France. The largest partner in the region is Ewopharma, a Swiss company with a presence in most Eastern European countries. Ewopharma worked very successfully with the BioGaia brand and

products during the year and launches included Gastrus tablets in the Polish market. Cube Pharma, the partner in



6 Contribution to sustainable development

# COMMITMENT AND RESPONSIBILITY

**Contributing to improved global health, through clinically-proven, health-promoting and user-friendly products, is BioGaia's core business. Conducting this in a socially, environmentally and economically responsible manner is the basis for sustainability initiatives.**

BioGaia's ambition is to accept responsibility and take into account sustainability risks throughout the value chain – from supplier, via distributor, to consumer. To ensure that resources are directed to areas where they will do the most good, BioGaia has worked to build a platform for long-term sustainability initiatives.

**THE BASE IS THE MATERIALITY ANALYSIS** carried out in 2016 to identify where BioGaia has its main impact and where the company can make the biggest difference. Involving stakeholders was key in order to obtain their opinions on the company's challenges and opportunities as well as a better understanding of their expectations on BioGaia from a sustainability perspective.

During 2018 the materiality analysis has been reconciled in internal workshops with representatives of various key functions within BioGaia. With the aim of clearly integrating sustainability initiatives into the core business, existing processes and ongoing activities have been identified and concrete targets and ambitions defined. In this way a base has also been created for how sustainability initiatives and progress can be clearly communicated both internally and

externally. As a result of this work the presentation and description of BioGaia's sustainability focus areas has also been updated.

**BELOW IS A PRESENTATION OF BIOGAIA'S COMPASS** which summarizes the company's contribution to sustainable development and selected focus areas. Contributing to global health is an overriding aim and also a strong driver for employees. "The BioGaia Way", the ambition to be a "good company", is firmly anchored in BioGaia's corporate culture and is also reflected in the common values.

Within the framework of these strategic focus areas, BioGaia's management has prioritized the key sustainability issues. Read more about these on the next pages.

## CONTRIBUTING TO GLOBAL HEALTH





## CONTRIBUTION TO GLOBAL HEALTH

Improved health and well-being with clinically-tested probiotic products

The core of BioGaia's business is clinically-tested and user-friendly probiotic products. This is also the company's main contribution to sustainable development in a wider perspective.

BioGaia's business mission is based on well-documented probiotic products contributing to the health and well-being of people worldwide. The probiotics can also be used preventively to strengthen the immune system, which can contribute to reduced use of antibiotics and thus reduced risk of antibiotic resistance. The company's products are currently available in 100 countries worldwide.

### Research and development

BioGaia collaborates with independent researchers who study the effects of BioGaia's probiotic strains, both in humans and in the laboratory. The company also performs its own research to develop new products and improve existing ones.

To enable a broader product portfolio in the future, BioGaia works strategically with business development. The subsidiary BioGaia Pharma and the acquisition of the research company MetaboGen create conditions for working with the entire microbiome in all regulatory categories.

### Social responsibility

Antibiotic resistance is one of the biggest global health threats. In addition to the core business, BioGaia is actively involved in spreading awareness within this area. At the end of 2017 an independent foundation was formed to provide financial support to individuals who research or work to spread awareness of antibiotic resistance. During 2018 the Foundation awarded SEK 4 million to four research projects, three at the Karolinska Institute and one at Uppsala University.

### IMPORTANT ISSUES

- Clinically-tested probiotics
- Social responsibility

### TARGETS AND RESULTS

**BioGaia's aim is continued growth through geographic expansion and continuous product and business development**

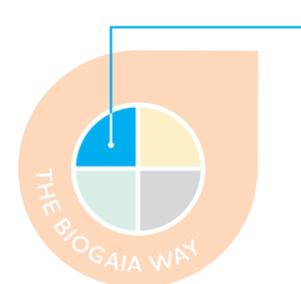
#### 2018

**Presence in 100 countries**

**1.3 billion doses**

**SEK 100 million to research and development**

**SEK 4 million awarded to research projects by the Foundation to prevent antibiotic resistance**



## Sustainable purchasing and production

Incremental improvements to reduce environmental impact and promote sustainability throughout the value chain

BioGaia strives to be a sustainable producer of probiotics. The aim is to accept responsibility and take sustainability risks into account throughout the value chain.

### Responsible purchasing

Long-term, close relations with a small number of suppliers are central to BioGaia's business model.

In addition to its own subsidiary BioGaia Production in Eslöv, BioGaia works with external suppliers for production, packaging, culture manufacture and analysis services in Sweden, Denmark, Belgium, Spain and the USA.

BioGaia has implemented a Code of Conduct as part of business agreements. At the end of 2018 all contract manufacturers for production, packaging and culture had signed up to the Code of Conduct. For suppliers of analysis services the figure was 83 percent, with the remainder in an ongoing process. The Supplier Code of Conduct specifies BioGaia's minimum requirements within areas such as human rights, working conditions, environment and business ethics/anti-corruption.

The ongoing dialog with suppliers covers sustainability aspects such as quality, safety and environmental impact. BioGaia also conducts regular inspections on site at its suppliers. During these inspections compliance with the Code of Conduct is also checked. Some of BioGaia's distributors also inspect suppliers as part of their own sustainability work.

### Use of material and resource consumption

BioGaia has an ambition to reduce the environmental impact from production

and products. This is done primarily through activities to reduce the quantity of material that is used as well as increasing the proportion of renewable material.

Previous life-cycle analyses of packages have shown that small tablet containers have the greatest impact per dose. BioGaia therefore always recommends that distributors choose blister packs for small packages.

The target is that within five years all BioGaia's packages will be completely biodegradable. The challenge is that probiotics are sensitive and the new packages must meet the same standards as today's to retain the quality and shelf life of the products.

### Safety in production

Manufacture and packaging of BioGaia's products takes place at six facilities in the USA and Europe of which BioGaia Production in Eslöv is a wholly-owned subsidiary and the others are external suppliers. Issues concerning the work environment and safety are included in the Code of Conduct and also handled through regular supplier inspections.

BioGaia Production in Eslöv has been GMP certified (good manufacturing practice) by the Swedish Medical Products Agency since 2015. At both BioGaia Production and the adjacent laboratory, Center of Excellence, there is systematic work with risk management to ensure that potential risks are handled satisfactorily. For example, in the laboratory work is in progress to automate analysis methods to reduce the risk of workplace injuries.

### IMPORTANT ISSUES

- Responsible purchasing
- Use of material and resource consumption
- Safety in production

### TARGETS AND RESULTS

**100 percent** Suppliers who have signed up to the Code of Conduct

At the end of 2018, 100 percent of BioGaia's contract suppliers of production, packaging and culture had signed up. Of suppliers of analysis services, 83 percent had signed up to the Code of Conduct.

**100 percent** Renewable material in packaging within five years

The development project started in 2017 continues.

### AGENDA 2030

On 1 January 2016 the UN 2030 Agenda for Sustainable Development came into effect with 17 Sustainable Development Goals. BioGaia supports all the goals but the overall areas where BioGaia has the best possibility to influence social development in a wider perspective are those closest to the operations.



Ensure healthy lives and promote well-being for all people at all ages



Ensure sustainable consumption and production patterns

### ANTIBIOTIC RESISTANCE

#### The Foundation to prevent antibiotic resistance

The independent Foundation provides financial support to people engaged in research or who are working to spread information about antibiotic resistance. The Foundation awarded SEK 4 million in 2018.



THE FOUNDATION TO PREVENT ANTIBIOTIC RESISTANCE



## Sustainable products

Industry-leading quality, safety and transparency

BioGaia works continuously to ensure and improve the quality of the products as well as their environmental and ethical perspective. This work is carried out both internally and in collaboration with suppliers and external researchers.

### Product quality and product safety

The BioGaia Quality Standard is the name of a list of demands that BioGaia makes to maintain high quality and safety related to the products. The requirements include how both BioGaia and suppliers shall relate to laws, regulations, customer demands, raw material requirements and manufacturing standards.

Manufacturing is carried out according to good manufacturing practice, that is using standardized processes and routines, and by employees with relevant training in quality and product safety. BioGaia checks every single batch that is produced against the requirements specification and the analysis methods are quality assured.

BioGaia measures how well suppliers comply with quality requirements and follows these up with regular inspections and evaluation meetings where any non-conformances, complaints and quality issues are reviewed. These also ensure that any action plans are satisfactory. The focus is on preventive measures.

Thanks to high quality requirements, BioGaia has never needed to recall deliveries from the market and there are very few complaints.

### Product development from an environmental and ethical perspective

In addition to maintaining high product quality and safety, BioGaia's product

development strives to improve the products from an environmental and ethical perspective. Demands and expectations from consumers drive development towards purer products, for example regarding the number of ingredients, and from demands for ecological, gluten-free and vegan alternatives.

The use of palm oil is a prioritized example. BioGaia's probiotics contain live bacteria which require a controlled environment to retain their effect. The special properties of palm oil mean that it is added to the products. Although BioGaia's use is extremely limited, the production of palm oil has a significant environmental impact globally and creates an ethical dilemma. Development work is therefore ongoing to completely phase out palm oil within five years, in a way that does not risk the quality of the products. BioGaia only purchases palm oil from suppliers that are members of the Roundtable for Sustainable Palm Oil (RSPO).

### Ethics and safety in clinical trials

BioGaia works with a network of prominent and independent researchers who study the effects and safety of BioGaia's products.

In order to ensure transparency and aim for the highest possible scientific standards, BioGaia encourages researchers to design studies and report results in a way that enables publication in well-renowned medical journals. The aim is that all studies, regardless of result, should be published. Furthermore, BioGaia requires all studies to be ethically approved and registered on a public website, such as ClinicalTrials.gov.

### IMPORTANT ISSUES

- Product quality and product safety
- Ethics and safety in clinical trials

### TARGETS AND RESULTS

#### 0 Product recalls

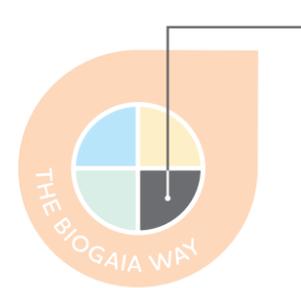
Thanks to high quality requirements, BioGaia has never needed to recall deliveries from the market and there are very few complaints.

#### 100 percent Palm oil free by 2023

The aim is to launch palm oil free tablets during 2019. Development work continues with other products and the aim is to completely phase out palm oil in all BioGaia's products in all markets by 2023.

#### 180 articles Reviewed and published studies

Studies should as far as possible be published. To date 203 clinical studies have been carried out. Results have been published in 180 articles (February 2019).



## High business ethics

The "good company" with clear values

Ethics is about doing what is right and accepting responsibility, such as respecting laws and regulations. It is also about adopting a clear standpoint against corruption, respecting human rights, and welcoming diversity and integration.

### Code of Conduct provides guidance for partners

BioGaia's products are sold in 100 countries and the brand therefore has worldwide exposure. To ensure ethical behavior in accordance with BioGaia's values, a Code of Conduct was adopted in 2017 which was signed up to by suppliers in 2018. During the year work also started on getting BioGaia's some 80 distribution partners worldwide to sign the Code of Conduct.

BioGaia's distributors are key parties for ensuring that the company's products comply with the laws and regulations that apply in each market. In this work BioGaia's experts collaborate with corresponding experts from the local distributors.

### The BioGaia Way

The corporate culture and values that govern BioGaia's approach, "The BioGaia Way", cover both social sustainability issues and respect for the environment. As part of their introduction, new employees are given a presentation of current policies, including those relating to anti-corruption.

BioGaia climate compensates for the Group's carbon dioxide emissions which are mainly caused by air travel and product packaging. In 2018, BioGaia provided compensation for its carbon dioxide emissions with SEK 187,000 to Agroforestry projects in Tanzania and Kenya.

### IMPORTANT ISSUES

- Responsible and ethical marketing
- Compliance with laws and regulations
- Anti-corruption and anti-bribery
- Promote sustainable approach

### TARGETS AND RESULTS

#### 100 percent Suppliers who have signed up to the Code of Conduct

At year-end 2018, all suppliers for production and packaging had signed the Code. Among suppliers of analysis services, 85 percent had signed. Almost 40 percent of distributors had signed the Code of Conduct.

#### 0 Reported incidents related to marketing

#### 100 percent Employees who have completed training in anti-corruption

### POLICIES

- Anti-bribery and anti-corruption policy
- Communications policy
- Insider policy
- Work environment and equality policy
- Information security policy
- Financial policy

In addition to these policies, BioGaia has Codes of Conduct, which include an environmental policy, for suppliers and distributors as well as quality guidelines for suppliers, the BioGaia Quality Standard.



## Attractive employer

Good working conditions provide employee commitment

Employees who are motivated and feel good at work help to contribute to long-term, sustainable business. The right skills and a good work environment provide conditions for job satisfaction and commitment.

BioGaia's aim is to be an attractive employer who can both attract new talent and retain the right skills in the company.

During 2018, BioGaia was evaluated by the company Great Place to Work. This included an employee survey, which was answered by 99 percent of employees in BioGaia AB, and an external review of the corporate culture.

The evaluation resulted in BioGaia being certified as a "Great Place to Work". In the employee survey, BioGaia as a workplace received a very high rating, for example 88 percent of employees stated that they can maintain a good balance between work and leisure and 95 percent said that they look forward to going to work.

BioGaia has a tool for structured performance reviews which is also used to ensure the quality of follow-up from both managers and employees. In 2018 all employees had such a review with their immediate manager.

The number of employees at 31 December 2018 totaled 143 (120), 84 women and 59 men. The Group acquired 36 new employees during the year of whom 16 in BioGaia AB, 1 in BioGaia Pharma, 6 in BioGaia Production, 10 in BioGaia Japan and 3 from the acquisition of MetaboGen. 13 people left the Group during the year.

### IMPORTANT ISSUES

- To attract and retain employees
- Healthy employees
- Good working conditions
- Healthy and safe work environment

### TARGETS AND RESULTS

Certified by Great Place To Work

In the employee survey (Trust Index) conducted by the external company Great Place to Work, 87 percent stated that BioGaia is a very good company to work for.

**1.8** Average short-term sickness absence per days per employee

Average short-term sickness absence in BioGaia AB is low. In 2018 it was 0.7 percent (1.8 days).

## Sustainability initiatives at BioGaia

BioGaia's business strategy is the starting point for sustainability work which is integrated into day-to-day operations. The materiality analysis and ongoing dialog with the company's stakeholders provide support when prioritizing issues and resources.

Each unit has operational responsibility for ensuring that targets and activities

linked to the sustainability focus areas are integrated into operations. Planning of activities, governance and follow-up are incorporated into the business plans.

BioGaia's Communications and Sustainability Manager together with the CFO is responsible for coordination and communication of sustainability initiatives. In 2018, it was decided to

recruit someone to be responsible for BioGaia's sustainability work and the recruitment process was underway when this report was published. The Sustainability Report covers the BioGaia Group and relates to the 2018 financial year.

## Stakeholder engagement

To ensure that sustainability initiatives remain relevant and focused on the areas where BioGaia can make the biggest

difference, an ongoing dialog about these issues is conducted with prioritized stakeholders. Prioritized stakeholders are

those assessed as having the greatest influence on and interest in the operations and sustainability initiatives.

STAKEHOLDER	PRIORITIZED ISSUES	DIALOG TYPE
Consumers	<ul style="list-style-type: none"> <li>• Safe products</li> <li>• Products with positive health effects</li> </ul>	Direct and ongoing dialog with consumers via social media and email
Owners/shareholders	<ul style="list-style-type: none"> <li>• Returns and dividends</li> <li>• Value creation</li> <li>• Reliable and responsible operations</li> </ul>	Quarterly reports, capital market days, investor presentations
Employees	<ul style="list-style-type: none"> <li>• Skills development and career path</li> <li>• Healthy work environment</li> <li>• Non-discrimination</li> </ul>	Close dialog between employees and managers, regular performance reviews, internal conferences, employee surveys
Suppliers	<ul style="list-style-type: none"> <li>• Long-term and evolving collaboration</li> </ul>	Direct and ongoing dialog via Sales, Marketing and Operations
Distributors	<ul style="list-style-type: none"> <li>• Long-term and evolving collaboration</li> </ul>	Direct and ongoing dialog via Sales and Marketing
Researchers	<ul style="list-style-type: none"> <li>• Independent research projects</li> <li>• Evolving collaboration</li> </ul>	Direct and ongoing dialog via Marketing, Operations and Discovery and Research

Auditor's report on the statutory sustainability report  
To the Annual General Meeting of BioGaia AB (publ), corporate identity number 556380-8723

### Engagement and responsibility

It is the Board of Directors which is responsible for the statutory sustainability report for the year 1 January 2018 - 31 December 2018 on pages 28-35 and for ensuring that it has been prepared in accordance with the Annual Accounts Act.

### The scope of the audit

Our examination has been conducted in accordance with FAR's auditing standard RevR 12 The auditor's opinion regarding the statutory sustainability report. This means that our examination of the statutory sustainability report is substantially different and 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 examination has provided us with sufficient basis for our opinion.

### Opinion

A sustainability report has been prepared.

Stockholm, 8 March 2019

**Deloitte AB**

Birgitta Löf, Authorized Public Accountant

### ZERO MISSION

In 2018, BioGaia provided climate compensation for its carbon dioxide emissions with SEK 187,000 to Agroforestry projects in Tanzania and Kenya.

### CHILDREN'S MISSION

Since 2007, BioGaia has supported the Children's Mission in the Philippines which helps malnourished children and their parents. BioGaia donated SEK 650,000 in 2018.



## EXECUTIVE MANAGEMENT



**ISABELLE DUCCELLIER** Born in 1969. Master in International Marketing from EM in Lyon and Executive MBA General Management GMP from Harvard Business School. CEO. Employed by the company since 2018. Previously Secretary General of the Swedish Childhood Cancer Fund and CEO and board assignments in Pernod Ricard Sweden. Holds 1,058 B shares.



**MARGARETA HAGMAN** Born in 1966. MBA. Executive Vice President Accounting, Finance and Investor Relations. Employed by the company since 1996 and in current position since 2010. Holds 7,000 class B shares.



**URBAN STRINDLÖV** Born in 1964. Mechanical Engineer. Executive Vice President and Vice President Sales. Employed by the company since 2004 and in current position since 2010. Holds 0 shares.



**SEBASTIAN SCHRÖDER** Born in 1973. MSc Business Administration from the Stockholm School of Economics. Executive Vice President Business Development. Employed by the company since 2015. Holds 0 shares.



**KRISTINA MAGNUSSON BORG** Born in 1961. MSc Nutrition/Biochemistry, PhLic Clinical Physiology, MBA. Vice President Discovery and Research. Employed by the company since 2015. Holds 1,500 class B shares.



**ULRIKA KÖHLER** Born in 1966. BSc Biology with extended studies in microbiology. Vice President Marketing and Product Development. Employed by the company since 2013. Holds 0 shares.



**KATAYOUN WELIN-BERGER** Born in 1968. PhD Pharmacology. Vice President Operations. Employed by the company since 2014. Holds 0 shares.



**PETER PERSSON** Born in 1969. Managing Director of BioGaia Production AB. Employed by the company since 2013. Holds 13,714 class B shares.



**MARIKA ISBERG** Born in 1973. LL.M and BSc in Economics. Vice President and General Counsel. Employed by the company since 2016. Holds 0 shares.

## BOARD OF DIRECTORS



**PETER ROTHSCHILD** Born in 1950. Board Chairman. Elected to the Board in 2018. MBA from the Stockholm School of Economics. Founder and principal shareholder of BioGaia. President 1996–2016 and Group President 2016–2018. Chairman of the subsidiaries BioGaia Production AB, BioGaia Pharma AB, CapAble AB, MetaboGen AB and the Foundation to prevent antibiotic resistance. Also Chairman of the Board of Infant Bacterial Therapeutics AB (IBT) and with board assignments in Glycom AB, Looft Industries AB and Allbright. Holds 740,668 class A shares and 359,332 class B shares via Annwall & Rothschild Investments AB (a company owned jointly with co-founder Jan Annwall).



**DAVID DANGOOR** Born in 1949. Board Vice Chairman. Elected to the Board in 2003. BioGaia Board Chairman 2007–2018. MBA from the Stockholm School of Economics. Marketing and PR consultant. President of Innoventive Partners LLC. Former Executive Vice President and Marketing Director at Philip Morris USA and Philip Morris International. Other board assignments: The Feinstein Institute for Medical Research, New York City Ballet Inc., School of Creative Leadership, Berlin University and Swedish-American Chamber of Commerce (chairman 1997–2001). Holds 518,918 class B shares.



**EWA BJÖRLING** Born in 1961. Elected to the Board in 2015. Doctor of Dentistry, Doctor of Medicine and Associated Professor at the Karolinska Institute. Member of the Swedish Riksdag 2002–2014. Minister for Trade in the Swedish Government 2007–2014. Minister for Nordic Cooperation 2010–2014. Other board assignments: Essity AB, Mobilis AB, Rehman & Partners Global Assessment advisory board. Board Chairman Svenska Petroleum and Biodrivmedelsinstitutet (SPBI). Holds 0 shares.



**INGER HOLMSTRÖM** Born in 1948. Elected to the Board in 2007. Communications expert. MA in Language and Linguistics and a degree in journalism. Former Corporate Communications Director at Vattenfall, Posten, the Confederation of Swedish Enterprise and Coop Norden. Other board assignments: Chairman of Järna Akademi. Holds 500 class B shares.



**BRIT STAKSTON** Born in 1961. Elected to the Board in 2014. Media Strategist and Communication Consultant. Owner of communications agency site Blankspot. Member of Presstödsnämnden. Holds 0 shares.



**PETER ELVING** Born in 1948. Elected to the Board in 2018. MBA from the Stockholm School of Economics and EPBA, Columbia University, New York. Formerly leading positions within Kraft Foods in Sweden and internationally, including CEO of Kraft Foods Nordic for many years. Board assignments in several listed and unlisted companies. Holds 0 shares.



**ANTHON JAHRESKOG** Born in 1980. Elected to the Board in 2015. MSc Financial Management. Former Chief Operating Officer Fund Linked Products at Credit Suisse Investment Bank, London. Other board assignments: Infant Bacterial Therapeutics AB (IBT). Holds 0 shares.



# FINANCIAL INFORMATION & NOTES 2018

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# Administration report

(The Figures in brackets refer to the previous year)

The Board of Directors and the CEO of BioGaia AB (publ.) corporate identification number 556380-8723, hereby submit their annual report and consolidated accounts for the financial year 2018.

The financial statements were approved for publication by the Board of the Parent Company on 5 March 2019.

## BIOGAIA

**The company** BioGaia is a healthcare company that develops, markets and sells probiotic products with documented health benefits. The products are primarily based on different strains of the lactic acid bacterium *Lactobacillus reuteri* in combination with unique packaging solutions that make it possible to create probiotic products with a long shelf life.

The class B shares of the Parent Company BioGaia AB are quoted on the Mid Cap list of Nasdaq OMX Nordic Exchange Stockholm.

BioGaia has 143 employees, of whom 122 are based in Sweden (Stockholm, Lund, Eslöv and Gothenburg), two in the USA, one in Singapore and 18 in Japan.

**Business model** BioGaia works with three international networks within the areas of research, production and distribution.

BioGaia's revenue comes mainly from the sale of drops, gut health tablets, oral rehydration solution (ORS) and oral health products to distributors. Revenue is also earned from the sale of bacterial cultures to be used in licensee products (such as infant formula and dairy products), as well as royalties for the use of *Lactobacillus reuteri* in licensee products and sales of delivery systems such as straws and caps.

The products are sold through nutrition and pharmaceutical companies in approximately 100 countries worldwide.

BioGaia holds patents for the use of certain strains of *Lactobacillus reuteri* and certain packaging solutions in all major markets.

**The BioGaia brand** At the beginning of 2006 BioGaia launched its own consumer brand and today there are a number of distribution partners that sell finished products under the BioGaia brand in a large number of markets. One central part of BioGaia's strategy is to increase the proportion of sales consisting of BioGaia-branded products.

Some of BioGaia's distributors sell finished consumer products under their own brand names. On these products, the BioGaia brand is shown on the consumer package since BioGaia is both the manufacturer and licensor.

BioGaia's licensees add *Lactobacillus reuteri* culture to their products and sell these under their own brand names. On these products, the BioGaia brand is most often shown on the package as the licensor/patent holder.

## KEY EVENTS IN 2018

### Agreements and launches

● **Launch of BioGaia Protectis with vitamin D in Sweden** In the first quarter, BioGaia launched its chewable tablets with *Lactobacillus reuteri* Protectis and vitamin D in Sweden through its partner Medhouse AB. The products, BioGaia Protectis D<sub>3</sub> and BioGaia Protectis D<sub>3</sub>+ (with 20 micrograms of vitamin D) are now available at selected pharmacy chains throughout Sweden.

● **Launch of BioGaia Protectis drops in India** BioGaia has started a partnership with Dr Reddy's Laboratories for marketing and distribution of BioGaia Protectis drops in the Indian market. Dr Reddy's started the launch in the first quarter of 2018 and the product will be marketed under a combination of the BioGaia and Dr Reddy's brands. With BioGaia Protectis drops, Dr Reddy's will focus on medical marketing mainly directed to pediatricians and other healthcare professionals. The aim is to meet medical needs for treatment of colic with BioGaia's drops.

● **Launch of BioGaia's oral health products in Sweden, Denmark, France, Belgium and the Netherlands** During the first quarter, BioGaia's distribution partner Sunstar launched Prodentis, BioGaia's probiotic for oral health, in

Sweden, Denmark, France, Belgium and the Netherlands. The product is marketed under the GUM PerioBalance brand and is available at selected local pharmacy chains. Sunstar already markets GUM PerioBalance in Germany, Spain, Portugal and Austria.

● **Agreement with Abbott for the rights to sell BioGaia Protectis tablets in China** In January 2018, BioGaia signed an exclusive agreement with Abbott for the rights to sell BioGaia Protectis tablets in China. The product will be co-branded under a combination of BioGaia's and Abbott's brands. The launch is planned for 2019, conditional on approval from the Chinese authorities.

● **BioGaia's royalty agreement with Nestlé regarding Growing Up Milk for children over the age of one** BioGaia's royalty agreement with Nestlé relating to sales of Growing Up Milk with *Lactobacillus reuteri* Protectis for children over the age of one, expired on 31 December 2018. Nestlé has renegotiated the royalty agreement which restricts the number of markets compared to the previous agreement. BioGaia's assessment is that the new agreement will lead to a reduction in royalty revenues of approximately SEK 40 million in 2019 compared to 2018.

### Clinical studies

● **Two new meta-analyses confirm the effectiveness of BioGaia's probiotic in infant colic** At the beginning of January 2018, two new meta-analyses were published investigating the effects of *L. reuteri* Protectis in colicky infants. Including these two, to date a total of nine systematic reviews have proven the effect of *L. reuteri* Protectis in infants with colic. With six positive randomized, double-blind and placebo-controlled clinical studies and nine meta-analyses, which is considered the highest level of evidence of a health effect, the proof of *L. reuteri* Protectis in infant colic is solid. Further, *L. reuteri* Protectis is the only probiotic with proven efficacy in colic.

● **Publication of study showing that *Lactobacillus reuteri* reduces bone loss in older women** In a randomized and controlled study carried out at the University of Gothenburg, over a one-year period older women with incipient osteoporosis received a supplement of probiotics in the form of *Lactobacillus reuteri* ATCC PTA 6475 or a placebo. In the group that received the *Lactobacillus reuteri* supplement, bone loss was halved compared to the placebo. The study was published online in June in the Journal of Internal Medicine.

● **MetaboGen's first product ready for safety study** BioGaia's subsidiary MetaboGen announced in October that the first version of its next generation probiotic product is ready to go into a safety study. During the fourth quarter the ethical application for the first safety study on humans was approved and the clinical study is now underway.

Two bacterial strains from the human microbiome, *Faecalibacterium prausnitzii* (DSM 32379) and *Desulfovibrio piger* (DSM 32187), have been chosen in this project. Because of the oxygen sensitive properties of the strains, MetaboGen has developed, and patented, a unique production technology that gives the bacteria a significantly better ability to survive in oxygen. This has been a crucial step in product development and something that may potentially also be suitable for other similar strains.

Future products based on these strains are intended to be used in the management of metabolic diseases, such as type 2 diabetes, gestational diabetes and non-alcoholic fatty liver disease.

### Other key events

● **Management changes at BioGaia** At the end of May, it was announced that after more than two years as Managing Director of BioGaia, Axel Sjöblad had agreed with the Board of Directors to end his employment with the company as of 30 June 2018.

In June, it was announced that the Board had decided to appoint Isabelle Ducellier as the new CEO of BioGaia. She became a member of the Board of BioGaia at the 2018 Annual General Meeting and took up her position as CEO on 5 November 2018.

Isabelle's most recent position was Secretary General of the Swedish Childhood Cancer Fund. Previously, Isabelle Ducellier has held a number of senior international positions within the Pernod Ricard Group for 20 years, mainly in sales and marketing. She completed her career there as CEO and board member of Pernod Ricard Sweden and successfully led the integration of Vin & Sprit AB into the group. After that, she has been a partner and consultant at McKinsey Sweden, among other things in the fields of advanced digital marketing, mergers and acquisitions. In addition to a master's degree in International Marketing, Isabelle has completed Executive MBA programs at both Harvard and INSEAD.

Sebastian Schröder, who is responsible for BioGaia's Business Development, was Acting Managing Director during the period 1 July – 4 November 2018.

- **BioGaia invests further in MetaboGen AB** In early April, BioGaia decided to acquire additional shares in the associated company MetaboGen AB and invested SEK 11.7 million in shares in the company. BioGaia's holding thus increased from 36% to 62% and BioGaia became the majority shareholder.

During the second quarter, set milestones were achieved which resulted in new agreements with the University of Gothenburg and Chalmers University of Technology. These agreements give BioGaia and MetaboGen more extensive and closer collaboration with the universities. At the beginning of July, BioGaia therefore acquired a further 30% of MetaboGen's shares for SEK 27.8 million. The higher valuation of the shares compared to the transaction in April is attributable to the new agreements.

BioGaia's shareholding thus amounts to 92%. BioGaia has an option to acquire the remaining 8% in the company within a three-year period. The additional purchase consideration can amount to a maximum of SEK 12 million depending on how many milestones are achieved.

Microbiome research is advancing very rapidly and pharmaceutical companies are making major investments in this area. Through its investment in MetaboGen, BioGaia will be able to maintain its strong position in the field of probiotic research. BioGaia will initiate a number of research projects in MetaboGen. The cost of these projects is estimated at around SEK 22 million over a three-year period starting in the third quarter of 2018. In addition, operation and development already taking place in the company today is expected to cost approximately SEK 10 million per year if no license agreements are made with external companies. The basis of the company's business mission is to find licensees. BioGaia has after the end of the year invested an additional SEK 6.0 million in MetaboGen, through a capital contribution.

## KEY EVENTS AFTER THE END OF THE FINANCIAL YEAR

No key events occurred after the end of the financial year.

## LAUNCHES IN 2018

DISTRIBUTOR/LICENSEE	COUNTRY	PRODUCT	BRAND
bWellness	Australia	BioGaia Protectis tablets with new flavor (strawberry)	BioGaia
Aché	Brazil	BioGaia Protectis tablets with new flavor (strawberry)	Co-branding
HansaMed	Canada	BioGaia Prodentis lozenges	BioGaia
Abbott	Chile	BioGaia Protectis Easydropper	BioGaia
Sunflower	China	BioGaia Protectis drops with vitamin D BioGaia Prodentis lozenges	BioGaia
Abbott	Colombia	BioGaia Protectis drops	BioGaia
PediAct	France	BioGaia Protectis tablets with vitamin D BioGaia Protectis tablets with new flavor (strawberry) BioGaia Protectis minipack	BioGaia
Cube	Greece	BioGaia Gastrus tablets	BioGaia
Abbott	Honduras	BioGaia Protectis drops	BioGaia
BG Distribution	Hungary	BioGaia Gastrus tablets	BioGaia
Dr Reddy	India	BioGaia Protectis drops	BioGaia
Kabaya Ohayo	Japan	BioGaia Prodentis lozenges	Partner brand
Philips Pharma	Mauritius	BioGaia Protectis drops BioGaia Protectis tablets	BioGaia
Abbott	Myanmar	BioGaia Protectis drops and tablets	BioGaia
Abbott	Peru	BioGaia Protectis tablets	BioGaia
Ewopharma	Poland	BioGaia Gastrus tablets	BioGaia
Age D'or	Singapore	BioGaia Protectis ORS (oral rehydration solution)	BioGaia
Casen/Recordati	Spain	BioGaia Protectis tablets with new flavor (strawberry)	Partner brand
Medhouse	Sweden	BioGaia Protectis tablets with vitamin D	BioGaia
Sunstar	Sweden, Denmark, France, Belgium and the Netherlands	BioGaia Prodentis lozenges	Partner brand
Ascendis	South Africa	Protectis drops with vitamin D BioGaia Prodentis lozenges Protectis tablets with new flavor (apple)	Partner brand
Everidis	USA	BioGaia Prodentis lozenges	BioGaia

## FINANCIAL PERFORMANCE IN 2018

**Sales** Consolidated net sales totaled SEK 741.9 million (615.0) which is an increase of SEK 126.9 million (21%) (excluding foreign exchange effects, 16%) compared to the previous year.

### Sales by segment

- **Pediatrics Segment** Sales in the Pediatrics segment amounted to SEK 596.5 million (492.6) an increase of SEK 103.9 million (21%), (excluding foreign exchange effects, 17%). The increase was driven mainly by sales of BioGaia Protectis drops.

Sales of drops, which make up the bulk of sales, increased sharply in all regions. In EMEA sales rose in most countries but the increase was particularly strong in several countries in Eastern Europe, Spain, South Africa and France, in the Americas in the USA and Brazil, and in Asia Pacific primarily in China but also Indonesia, South Korea and India.

Sales of BioGaia Protectis tablets in the Pediatrics segment increased compared to the previous year above all in EMEA (mainly the Eastern European countries, Spain and France). In Asia Pacific and the Americas, sales were largely unchanged over the previous year.

Royalty revenues from the sale of Growing Up Milk with *Lactobacillus reuteri* Protectis for children over the age of one, decreased by approximately SEK 5 million compared to the previous year. As already communicated in earlier reports, BioGaia's royalty agreement with Nestlé expired at the end of the year. Nestlé has renegotiated the royalty agreement which restricts the number of markets compared to the previous agreement. BioGaia's assessment is that the new agreement will lead to a reduction in royalty revenues of approximately SEK 40 million in 2019 compared to 2018.

Sales of culture, at low margins, for use in Nestlé's infant formula decreased compared to the previous year.

Royalty revenue from the collaboration agreement with Nestlé amounted to SEK 10.1 million (14.3). The collaboration agreement with Nestlé was signed in March 2014. Through 31 December 2018, BioGaia has recognized total revenue of SEK 91.8 million, of which SEK 42.2 million in Other Sales and SEK 49.6 million in the Pediatrics segment.

- **Adult Health Segment** Net sales in the Adult Health segment amounted to SEK 141.7 million (116.2), an increase of SEK 25.5 million (22%), (excluding foreign exchange effects, 16%) compared to the previous year.

Sales growth was mainly driven by oral health products which increased substantially compared to last year. Sales increased in Asia Pacific (Japan) and in EMEA (several countries). In the Americas, BioGaia Prodentis oral health lozenges have just been launched in the USA. At present, oral health lozenges are not sold in Latin America. The company is making active efforts to find additional distribution partners for the product.

Sales of BioGaia Protectis tablets also increased compared to the previous year. Sales rose in Asia Pacific, primarily Japan but also Hong Kong, while they decreased in EMEA. In EMEA sales increased in several markets including Belgium, Italy and Sweden but fell in Finland. In the Americas, sales increased slightly but remain at a low level.

Sales of BioGaia Gastrus gut health tablets remain at a low level but increased sharply compared to last year. Sales rose in all regions in countries such as the USA, Spain, Japan, South Korea and Hong Kong. The company is making active efforts to find additional distribution partners for this product.

- **Other sales** Other Sales amounted to SEK 3.7 million (6.3), a decrease of SEK 2.5 million (40%). No foreign exchange effects arose. Other Sales included royalty revenue of SEK 0 million (3.5) relating to the collaboration agreement with Nestlé (see above under Pediatrics).

**Sales by geographical market** Sales in EMEA amounted to SEK 437.9 million (393.5), an increase of 11%. The increase was mainly attributable to the Pediatrics segment but the Adult Health segment also increased.

Sales in Asia Pacific amounted to SEK 130.1 million (95.5), an increase of 36%. The increase was more or less equally divided between the Pediatrics and Adult Health segments.

In the Americas, sales amounted to SEK 173.9 million (126.1), an increase of 38%. The increase was mainly attributable to the Pediatrics segment.

**The BioGaia brand** Of total finished consumer products (drops, gut health tablets, oral health lozenges, oral rehydration solution, etc.) sold in 2018, 69% (69%) were sold under the BioGaia brand including co-branding.

**Gross margin** Total gross margin was unchanged at 75% (75%).

Gross margin for Pediatrics amounted to 76% (77%). The slightly lower gross margin was due to lower royalty revenue during the year.

The gross margin for the Adult Health segment was 71% (67%). The increase was mainly due to increased sales in Japan where the margin is higher than in other markets.

**Operating expenses** Operating expenses (selling, administrative and R&D expenses) amounted to SEK 280.5 million (224.9), an increase of 25%. During the year major marketing activities were carried out in a number of countries (including Italy, Brazil and Sweden). In addition, personnel expenses rose because of an increase in the number of employees and a one-time expense of SEK 3.1 million for the outgoing Managing Director. Expenses also include a provision to the incentive program of SEK 10.9 million (5.6) (see below under Employees). In addition, R&D costs increased due to research projects and a large number of ongoing clinical studies. Furthermore, the Group includes two new companies since last year, BioGaia Pharma AB and MetaboGen AB. Expenses for these companies amounted to SEK 8.3 million (1.4).

Other operating expenses/income refers to exchange gains/losses on receivables and liabilities of an operating nature. These amounted to SEK -4.6 million (-4.7). The Group has changed an accounting standard (see below under New accounting standards) and with effect from 2018 (and including comparative figures for the previous year) recognizes exchange gains/losses on forward exchange contracts in operating profit or loss since the assessment is that they are attributable to operations. Other operating expenses/income includes an exchange loss relating to forward exchange contracts of SEK 6.1 million (0.8). At 31 December 2018 the company had outstanding forward exchange contracts for EUR 14.1 million at an average exchange rate of SEK 10.08 and for USD 9.8 million at an average exchange rate of SEK 8.28. The actual exchange loss/gain depends on the exchange rate on the maturity dates of the contracts.

**Share in profit of associates** MetaboGen was an associated company in BioGaia until 6 April 2018. The share of profits of associates refers to BioGaia's share (36%) of MetaboGen AB's profits up to 6 April 2018 and amounted to SEK -0.5 million (-0.8).

**Operating profit and operating margin** Operating profit amounted to SEK 277.4 million (233.0). Operating profit, excluding revaluation of the former associate shareholding in MetaboGen, amounted to SEK 270.4 million (233.0), an increase of SEK 37.4 million (16%). The company changed an accounting standard with effect from 1 January 2018, which means that exchange gains/losses attributable to forward exchange contracts are recognized in operating profit or loss (previously in financial items). These amounted to SEK 6.1 million (0.8). With unchanged accounting standards, operating profit would have increased by 18%.

The operating margin amounted to 37% (38%).

In a step acquisition all previous equity interests in the acquiree are adjusted to fair value and all gains or losses thus arising are recognized in profit or loss. As a result, a gain of SEK 7.0 million is recognized in operating profit regarding the previous associate shareholding in MetaboGen since BioGaia increased its holding to 62% in the second quarter and thereby obtained a controlling interest in MetaboGen whereby this company was consolidated as a subsidiary with effect from 6 April 2018.

**Profit after tax** Profit after tax amounted to SEK 214.2 million (180.6), an increase of SEK 33.6 million (19%). Excluding revaluation of the former associate shareholding in MetaboGen of SEK 7.0 million, profit after tax increased by 15%.

The effective tax rate for the Group was 23% (22%).

Owing to the distribution and license agreement signed in Japan at the end of 2016, the earlier loss carryforward in Japan could be utilized in the Japanese company. The exclusivity fees relating to product rights will be recognized successively over the term of the agreement and a deferred tax asset was therefore recognized. At 31 December 2018 the deferred tax asset amounted to SEK 8.4 million (9.3).

**Earnings per share** Earnings per share amounted to SEK 12.40 (10.42). No dilutive effects arose.

**Balance sheet, 31 December** Total assets amounted to SEK 660.0 million (576.1). During the year cash and cash equivalents and equity decreased as a result of dividends, while inventories and trade receivables increased. The increase is due to higher sales. Furthermore, a surplus value due to the acquisition of MetaboGen increased total assets by SEK 51.2 million.

**Cash flow** Cash flow amounted to SEK -22.9 million (63.6). Cash flow included dividends of SEK 158.7 million (130.0), as well as the net investment in MetaboGen of SEK 33.9 million (0). In addition, working capital increased by SEK 50.2 million mainly attributable to trade receivables and inventories due to increased sales. Cash and cash equivalents at 31 December 2018 amounted to SEK 285.0 million (305.9).

**Investments in property, plant and equipment** Investments in property, plant and equipment amounted to SEK 13.5 million (26.6) of which the majority relates to the subsidiary BioGaia Production.

**Parent Company** Net sales in the Parent Company amounted to SEK 705.8 million (587.9) and profit before tax was SEK 229.6 million (232.1). The financial performance of the Parent Company is in all material respects in line with that of the Group.

The result for the year includes an impairment recognized in the shares in the subsidiary CapAble of SEK 7.5 million. The figures for the previous year included the reversal of a previously impaired receivable on a loan to the subsidiary in Japan of SEK 23.3 million since the subsidiary repaid part of the loan in the first quarter of 2017.

Cash flow amounted to SEK -46.5 million (55.1). Cash flow included dividends of SEK 156.0 million (130.0), and investment in MetaboGen of SEK 45.5 million (0). In addition working capital increased by SEK 50.0 million due to increased trade receivables and inventories.

**Subsidiary in Japan** Net sales in the Japanese subsidiary amounted to SEK 61.2 million (44.7). Operating profit for the Japanese operations amounted to SEK 7.0 million (3.1).

**Subsidiary BioGaia Production AB** BioGaia Production is a wholly owned subsidiary of BioGaia that manufactures the company's products, primarily drops. Net sales amounted to SEK 104.2 million (81.7). Operating profit amounted to SEK 34.5 million (19.4).

**Subsidiary CapAble AB** CapAble is owned 90.1% by BioGaia and 9.9% by CapAble's Managing Director. Net sales in CapAble amounted to SEK 1.7 million (1.9). Operating profit was SEK -0.6 million (-1.4).

**Subsidiary BioGaia Pharma AB** In June 2017, BioGaia announced that the company had established a subsidiary, BioGaia Pharma, to take advantage of the opportunities to develop drugs identified in the R&D activities conducted as part of the company's normal operations. BioGaia Pharma is owned 96% by BioGaia and 4% by the company's Managing Director. The company has no revenues. Operating profit for the period amounted to SEK -4.7 million (-1.4). The company has received a conditional shareholder contribution of SEK 8.0 million from the Parent Company, of which SEK 6.0 million in 2018.

**Subsidiary MetaboGen AB** MetaboGen is a research-driven company that was founded in 2011 in Gothenburg. The company's founders include Professor Fredrik Bäckhed at the University of Gothenburg and Professor Jens B. Nielsen at Chalmers University of Technology. These researchers still work with the company. MetaboGen conducts research in the microbiome area including sequencing of all genes in the microflora, for example in the human intestine, to find previously unknown components and patterns in the microbial diversity and link this to health and disease. BioGaia owned 36% of the company since 2014. At the beginning of April 2018, an additional 26% of the company was acquired for SEK 11.7 million. Set milestones were achieved in the second quarter which led to new agreements with the University of Gothenburg and Chalmers University of Technology which give BioGaia and MetaboGen a more extensive and closer collaboration with the universities. At the beginning of July, BioGaia therefore acquired an additional 30% of MetaboGen's shares for SEK 27.8 million. BioGaia's shareholding thus amounts to 92%. BioGaia has an option to acquire the remaining 8% in the company within a three-year period. The additional purchase consideration can amount to a maximum of SEK 12 million depending on how many milestones are achieved.

Operating profit for MetaboGen starting from 6 April amounted to SEK -3.6 million.

## RESEARCH AND DEVELOPMENT ACTIVITIES

BioGaia has an extensive research network and collaborates with universities and hospitals around the world, such as the Swedish University of Agricultural Sciences in Uppsala, Sweden, the Karolinska Institute in Stockholm, Sweden, Sahlgrenska University Hospital in Gothenburg, Sweden, Texas Children's Hospital in the USA, and the University Hospitals of Bari and Turin in Italy.

BioGaia's strains of *Lactobacillus reuteri* are some of the world's most well researched probiotics, especially in young children. To date, 203 clinical studies using BioGaia's human strains of *Lactobacillus reuteri* have been performed on around 17,200 individuals of all ages.

Studies have been performed on:

- Infantile colic and digestive health in children
- Antibiotic-associated diarrhoea (AAD)
- Acute diarrhoea
- Gingivitis (inflammation of the gums)
- Periodontal disease
- General health
- *Helicobacter pylori* (the gastric ulcer bacterium)
- Osteoporosis

In order to ensure transparency and aim for the highest possible scientific standards, BioGaia encourages researchers to design studies and report results in a way that enables publication in well-renowned medical journals. The aim is that all studies, regardless of result, should be published. Furthermore, BioGaia requires all studies to be ethically approved and registered on a public website, such as ClinicalTrials.gov.

## ENVIRONMENTAL INFORMATION

BioGaia has a fundamentally ethical and environmentally friendly mission, namely to conduct research and development aimed at offering clinically proven, health-enhancing and user-friendly probiotic products.

BioGaia shows its commitment to the environment by:

- reducing the use of antibiotics
- striving to use eco-friendly packages
- encouraging its suppliers and distributors to take environmental aspects into account in their decisions
- measuring the climate impact of the company and its products and compensating for its CO2 emissions

In 2017, BioGaia established an independent foundation (The Foundation to prevent antibiotic resistance). The aim of the Foundation is to reduce antibiotic resistance through support to research, education and information activities. The goal is for this to promote the use of products and methods that prevent infections or in other ways reduce the use of antibiotics. In a longer perspective, this will also have positive effects on the environment.

BioGaia conducts no operations that are subject to permit or notification requirements.

For more information, see the company's Sustainability Report.

## BUSINESS RISKS AND UNCERTAINTIES

BioGaia's operations are associated with both risks and opportunities of various types. Certain risks are of a more general nature such as markets and countries, research and development, products and production, health and safety, environment, corruption and violation of human rights, while other risks are more specific to the company. The following section is not a complete risk analysis but gives an indication of the factors of significance for future development including sustainability risks.

### GROUP

**Associated company MetaboGen AB** MetaboGen is a subsidiary since April 2018 (see above under Other key events).

MetaboGen was founded in 2011 by Professor Fredrik Bäckhed at the University of Gothenburg and Professor Jens B. Nielsen at Chalmers University of Technology, together with GU Ventures, which commercializes research results and develops companies with ties to the University of Gothenburg. The company is domiciled in Gothenburg, Sweden. Aside from assignments for BioGaia, MetaboGen collaborates with Ferring Pharmaceuticals and holds a number of patents and patent applications in the microbiome area. The company has a laboratory in Gothenburg where development of new probiotic strains takes place.

Research on the microbiome is advancing very rapidly and pharmaceutical companies are making major investments in this area. Through the investment in MetaboGen, BioGaia will be able to maintain its strong position in the field of probiotic research.

As of the balance sheet date, assets in the Group relating to MetaboGen are recognized at SEK 52.0 million of which the largest items relate to R&D projects in progress (SEK 45.9 million) and Goodwill (SEK 5.3 million) attributable to the surplus value at the acquisition of MetaboGen in 2018. There is a risk that MetaboGen's research will not achieve the expected results and/or not have the profitability that is expected. Thereby there is a risk that the Group's assets will be written down.

Since BioGaia's assessment is that MetaboGen will show profitability in the future, no impairment requirement exists on the balance sheet date.

**BioGaia's partners** BioGaia does not sell directly to end-users but instead sells its products to distributors (partners) which then sell on the products. The agreements normally have a term of 3-7 years.

BioGaia is dependent on these partners investing the resources necessary for marketing and sales. So that the company itself can influence this to a greater extent, BioGaia launched its own brand in 2006. Today many of BioGaia's partners sell wholly or partly under the BioGaia brand. BioGaia provides its partners with strong marketing support in the form of education, information about new clinical studies, speakers at symposia, marketing and PR support. There is a risk that BioGaia's partners will not perform according to the company's wishes. However, BioGaia has formulated its agreements so that it is possible to terminate the agreement if a distributor does not meet certain minimum sales targets.

**Research and development** BioGaia invests considerable sums in research, clinical studies and product development with the aim of developing products with proven health benefits. Even after pilot studies, there is always a risk that a project will be wholly or partly unsuccessful. BioGaia works with a range of research initiatives in which the company strives for a balance between low- and high-risk projects.

Research and clinical studies are carried out at universities and hospitals around the world. To ensure that the clinical studies are performed in accordance with the applicable regulations and provide reliable results, BioGaia's own staff is involved in parts of the work with clinical studies. The study agendas are always approved by BioGaia, the ethics committee and other relevant authorities. Agreements are signed with hospitals and universities in which they undertake to comply with the applicable regulatory requirements. BioGaia monitors the studies to ensure that they are conducted in a correct and ethical manner. BioGaia always urges the researchers to publish the results of their studies.

**Intellectual property** BioGaia's business activities are based on a large number of intellectual property rights, such as patents, trademarks, names of strains and Internet domains. The company works continuously to strengthen its intellectual property rights by protecting the company's products. The various patents have different terms but those covering the most used strains in BioGaia's products apply until 2026 and 2027.

There is always a risk of infringement of intellectual property. These rights are enforced on an ongoing basis, but there are no guarantees that future infringements will not cause the company damage. BioGaia continuously monitors its business environment.

**Regulatory affairs** BioGaia's products are currently sold in 100 countries around the world. Due to their differing regulatory systems, the length of time between contract and product launch varies between countries. In most countries the products are registered as dietary supplements but in a few markets they are registered as a category of pharmaceutical.

There is always a risk that the rules will be changed in the different markets with a resulting negative impact on sales for a period.

To minimize this risk, the company continuously monitors the regulatory systems of other countries in order to be proactive.

**Regulations regarding health claims** In the EU, the use of nutrition and health claims for food is regulated by the European Food Safety Authority (EFSA). The EFSA rules apply to food products that are marketed to consumers with various claims about preventative health effects. In order to make a health claim for a product and in marketing, EFSA approval is required.

In the case of BioGaia's products, the distributors' sales reps use the clinical studies in their marketing to healthcare professionals (doctors, midwives, etc.), who then recommend the products to patients because the patient in question is in more or less urgent need of the product's probiotic effects. As a result, the EFSA rules are not applicable to the majority of BioGaia's products. Furthermore, because the products are primarily recommended by healthcare professionals, such as doctors and nurses, in most countries there is no need to make general health claims in the marketing materials as would be the case if the company was marketing a yoghurt or beverage directly to consumers.

If it becomes necessary to use another type of marketing for future products, BioGaia will apply for approval of its health claims from EFSA. Together with partners, BioGaia is assessing the opportunities to register its products under the existing regulations as Food for Special Medical Purposes ('SärNär' in Sweden), natural remedies or other registration categories depending on the type of product and the country involved.

**Employees** BioGaia's operations are wholly dependent on the employees' expertise, and they therefore constitute the company's most valuable resource. In order to attract and retain skilled and motivated employees, BioGaia strives to create a culture in which all employees are given the opportunity to develop, influence their own work situation and maintain a good balance between work and leisure in order to avoid stress. The company continuously evaluates the current staffing situation and the need for recruitment.

**Product liability** BioGaia sells dietary supplements. There is a risk that a consumer could experience damage and claim that this damage is attributable to BioGaia's product. This risk also exists in clinical studies.

For BioGaia, the top priority has always been to ensure that the products that are manufactured and offered to the customers are of a high quality and are safe to use. The employees concerned are given relevant training in product safety. The agreements with BioGaia's suppliers include quality requirements and the company has processes in place to ensure that the suppliers comply with the agreements.

**Business ethics** BioGaia's business model is based on three networks – Research, Production and Distribution. BioGaia's products are sold in 100 countries, which means that the brand is exposed all over the world.

To ensure that all parties perform their duties in an ethical and, according to BioGaia, correct manner, BioGaia adopted a Code of Conduct in 2017. The Code of Conduct contains minimum requirements in areas such as human rights, labor rights, environment and business ethics and anti-corruption. The majority of suppliers implemented the Code in 2018. In 2018 the company also began implementation of the Code of Conduct among distributors. For further information, see the company's Sustainability Report.

With regards to the research network, BioGaia encourages a sufficiently high level in the design of the studies and reporting of results to enable publication in respected medical journals and thereby ensure the highest possible scientific standards. Furthermore, BioGaia requires that before participants start to be accepted, the study must be registered on a public site, such as ClinicalTrials.gov. The goal is for all studies to be published, regardless of the results.

**Sustainable supply chain** BioGaia's ambition is to take responsibility and give consideration to sustainability risks throughout the entire value chain, from suppliers via distributors and all the way to the consumer.

One key component of BioGaia's business model is the effort to build close and long-term relationships with a small number of suppliers. All suppliers must read and sign BioGaia's Supplier Code of Conduct.

## PARENT COMPANY

**Subsidiary CapAble AB** CapAble AB, which is owned 90.1% by BioGaia AB, was started in November 2008 to manufacture and sell the patented Life Top Cap. CapAble has operated at a loss since the start in 2008. Profit/loss before tax and group contributions for 2018 was SEK -0.6 million (-1.4). BioGaia AB made total group contributions of SEK 20.7 million during the period 2010-2018.

On the balance sheet date, BioGaia recognized an impairment on the entire shareholding in CapAble which had an earnings impact of SEK 7.5 million in the Parent Company.

**Subsidiary BioGaia Pharma AB** BioGaia Pharma AB was started in June 2017 to take advantage of the opportunities to develop drugs identified in the R&D activities conducted as part of the company's normal operations. BioGaia Pharma is owned 96% by BioGaia and 4% by the company's Managing Director. Operating profit amounted to SEK -4.7 million (-1.4). The company has received a conditional shareholder contribution of SEK 8.0 million from the Parent Company, of which SEK 6.0 million in 2018. BioGaia AB has provided a group contribution of SEK 6.1 million of which SEK 4.7 million in 2018.

On the balance sheet date, assets in BioGaia Pharma were reported at SEK 14.1 million in the Parent Company. BioGaia's assessment is that BioGaia Pharma will show profitability in coming years, for which reason there was no indication of impairment on the balance sheet date.

## FINANCIAL RISK MANAGEMENT

The overall objective of the Group's finance function is to secure cost-effective financing for the Group's operations and group companies and to provide secure cash management with a market-based return on investment. The overall objective of financial risk management is to minimize the risk of negative effects on the Group's earnings. Consequently, the Group's financial investments must have a low risk profile.

Below is a description of the Group's assessed risk exposure and the related risk management. For more information, see Note 27.

**Currency risk** BioGaia has revenue primarily in EUR and USD but also in SEK, JPY and CHF, and expenses primarily in SEK, but also in EUR, JPY and USD. In 2018 the company had a cash flow surplus of approximately EUR 18.3 million (22.1), a cash flow of JPY 80.7 million (313.1) and a cash flow surplus of USD 19.5 million (18.2). Since growth in sales increases currency risks, the company has forward exchange contracts in EUR and USD. For more information, see Notes 7, 21 and 27.

**Interest rate and liquidity risk** The Group has no external loans. The company's interest rate risk consists of the return on cash and cash equivalents. The Board has issued a liquidity policy for cash and cash equivalents in which the basic principle is that investment risks should always be minimized and investments should be made primarily in Swedish kronor. To minimize currency risk, other currencies may also be considered. The company's cash and cash equivalents may be invested only in bank accounts, commercial paper or other fixed income securities with very limited risk. This means that no investments may be made in shares, equity funds, options, etc.

**Credit risks** BioGaia's credit risks are tied to trade receivables. Customers have a 30-90 day credit period. When signing agreements with new customers, an assessment is made of the customer's financial position. The company has routines for collection of past due accounts receivable and additional evaluations of the customer's financial position are carried out when required in order to minimize risks.

**Cash flow risk** BioGaia has good liquidity. The risk of a liquidity shortage is therefore immaterial. Cash flow amounted to SEK -22.9 million (63.5). Cash flow includes dividends of SEK 158.7 million (130.0) and a net investment in MetaboGen of SEK 33.9 million (0). In addition, working capital increased

by SEK 50.2 million mainly attributable to trade receivables and inventories due to the increased sales. Since cash and cash equivalents at 31 December 2018 amounted to SEK 285.0 million (305.9), no infusion of capital is necessary during the coming 12-month period.

**Price risk** BioGaia buys most of its goods on the international market and has several alternative suppliers, which reduces the company's price risk.

BioGaia's price to distributors is largely the same for all, but can vary with respect to the order volume. Certain markets are subject to aggressive price competition towards consumers. However, BioGaia's strategy is not to compete in terms of price but to instead convince doctors of the effectiveness and safety of the products by showing the results of clinical studies.

## FUTURE OUTLOOK

BioGaia's goal is to create strong value growth and a good return for the shareholders. This will be achieved through a greater emphasis on the BioGaia brand, increased sales to both existing and new customers and a controlled cost level.

In view of the company's strong product portfolio consisting of an increased number of innovative products that are sold predominantly under the BioGaia brand, successful clinical trials and an expanding distribution network that covers a large share of the key markets, BioGaia's future outlook remains bright.

**Financial target and dividend policy** The long-term financial target is a sustainable operating margin (operating profit in relation to sales) of at least 34% with continued strong growth and increased investments in research, product development and brand building.

BioGaia's dividend policy is to pay a shareholder dividend equal to 40% of profit after tax.

## EMPLOYEES

The number of employees in the Group at 31 December 2018 was 143 (120). The Group acquired 36 new employees during the year, of whom 16 in BioGaia AB, 1 in BioGaia Pharma, 6 in BioGaia Production, 10 in BioGaia Japan and 3 from the acquisition of MetaboGen. 13 people left the Group during the year.

The company has a bonus program aimed at ensuring employees' long-term commitment to BioGaia. The program is designed as follows: The bonus is based on the company's sales and profits. The maximum bonus amounts to 12% of salary. The employee is required to reinvest one-third of the yearly paid-out bonus (after tax) in BioGaia class B shares at a market price and to hold these for a three-year period. BioGaia has no obligation to repurchase shares nor does the employee have any obligation to sell shares in the event employment is terminated within three years from the date reinvestment took place. Maximum bonuses were achieved for 2018 and the cost of the program amounted to SEK 10.9 million (5.6).

See Note 3 for additional information about employees and personnel expenses.

## THE BOARD OF DIRECTORS' PROPOSAL TO THE AGM REGARDING REMUNERATION AND OTHER TERMS OF EMPLOYMENT FOR SENIOR EXECUTIVES

The Board of Directors proposes that the AGM approve the following guidelines for remuneration and other terms of employment for senior executives in the Group. These principles apply to employment contracts entered into after the decision of the AGM and in the event that changes are made in the existing terms after this date.

It is of fundamental importance for the Board that the principles for remuneration and other terms of employment for senior executives in the Group create long-term motivation and enable the company to retain competent employees who work to obtain maximum shareholder and customer value. In order to achieve this, it is vital to uphold fair and internally balanced terms that are market-based and competitive with respect to the structure, scope and level of remuneration. The total remuneration package for the individuals concerned should contain a well-balanced mix of basic salary, variable remuneration, long-term incentive schemes, pension benefits, other benefits and terms of notice/termination benefits.

- **Basic salary** Basic salary shall be differentiated on the basis of the individual's role and responsibilities, as well as the individual's competence and experience in the relevant position.

- **Variable remuneration** The amount of variable remuneration shall not exceed 25% of total remuneration.

- **Long-term incentive schemes** Every year, the Board of Directors shall evaluate whether a long-term share-based or share price-based incentive scheme should be proposed to the AGM. Other types of long-term incentive schemes can be decided on by the Board. Any remuneration in the form of long-term incentive schemes shall be consistent with generally accepted practices in the respective market.

- **Pensions** Senior executives who are entitled to pension benefits shall have pension agreements of the defined contribution type. The amount of benefit payable depends on the amount payable under the pension agreements in force.

- **Other benefits** Other benefits shall be of limited value in relation to other remuneration and shall be consistent with general norms in the respective geographic market.

- **Terms of notice and termination benefits** In the event that employment is terminated by the company, the term of notice for senior executives may not exceed 18 months. In the event that employment is terminated by the employee, the term of notice may not be shorter than three months.

The Board of Directors proposes that the Board be authorized to deviate from the above proposed guidelines in individual cases when there is special reason to do so.

For more information about remuneration to senior executives, see Note 3.

## MOST RECENTLY ADOPTED GUIDELINES REGARDING REMUNERATION AND OTHER TERMS OF EMPLOYMENT FOR SENIOR EXECUTIVES

The most recently adopted guidelines correspond to those that are proposed to the AGM (see above).

## CORPORATE GOVERNANCE

BioGaia has published a separate corporate governance report. See pages 73-75.

## SUSTAINABILITY REPORT

In accordance with Chapter 6, §11 of the Annual Accounts Act, BioGaia has chosen to prepare the statutory sustainability report as a separate part of the annual report. The sustainability report is found on pages 28-35. The sustainability report includes BioGaia AB and its subsidiaries.

## PROPOSED APPROPRIATION OF PROFITS

The following funds in the Parent Company are at the disposal of the Annual General Meeting (SEK):

Retained earnings	255,914,312
Profit for the year	175,599,080
Profits available for appropriation	<b>431,513,392</b>

The Board of Directors proposes that the profits be appropriated as follows

To be paid as a dividend to the shareholders	173,364,620
Provision to "The Foundation to prevent antibiotic resistance"	3,200,000
To be carried forward to new account	254,948,772
Total	<b>431,513,392</b>

\*) The proposed dividend consists of a dividend of SEK 4.05 (4.31) per share according to policy and an extraordinary dividend of SEK 5.95 (4.69) per share, amounting to a total dividend of SEK 10.00 (9.00) per share.

# Five-year summary

Key ratios	2018	2017	2016	2015	2014	2014 <sup>1)</sup>
Net sales, SEKm	741.9	615.0	534.7	483.2	481.8	386.4
Net sales, Pediatrics, SEKm	596.5	492.6	433.0	389.6	409.1	313.7
Net sales, Adult Health, SEKm	141.7	116.2	85.3	74.7	69.4	69.4
Net sales, other SEKm	3.7	6.3	16.4	19.0	15.7	15.7
Operating profit, SEKm <sup>2)</sup>	277.4	233.0	199.4	172.8	203.6	108.2
Profit before tax, SEKm <sup>2)</sup>	277.6	232.9	196.1	178.0	199.3	103.9
Profit after tax, SEKm <sup>2)</sup>	214.2	180.6	159.3	137.4	152.7	78.3
Profit after tax including discontinued operations, SEKm	214.2	180.6	227.3	121.3	148.0	73.6
Profit after tax attributable to owners of the Parent Company, SEKm <sup>2)</sup>	214.2	180.6	159.3	137.4	153.3	78.9
Growth, net sales %	21	15	11	25	53	22
Operating margin, % <sup>2)</sup>	37	38	37	36	42	28
Profit margin, % <sup>2)</sup>	37	38	37	37	42	27
Current ratio, times	3.4	4.1	5.2	4.7	4.7	4.8
Equity/assets ratio, %	77	81	85	84	83	84
Capital employed, SEKm	514.8	464.7	415.5	396.2	344.8	270.4
Return on capital employed, % <sup>2)</sup>	57	53	49	48	61	37
Return on equity, %	44	41	56	33	45	25
Average number of employees <sup>2)</sup>	130	115	108	98	87	87
<b>Data per share</b>						
Number of shares at 31 Dec, thousands <sup>3)</sup>	17,336	17,336	17,336	17,336	17,271	17,271
Average number of shares, thousands	17,336	17,336	17,336	17,309	17,271	17,271
Number of outstanding warrants, thousands	-	-	-	-	87	87
Number of outstanding warrants with a dilutive effect, thousands	-	-	-	-	-	-
Number of outstanding shares including outstanding warrants with a dilutive effect, thousands	17,336	17,336	17,336	17,336	17,271	17,271
Earnings per share, continuing operations, SEK <sup>2)</sup>	12.40	10.42	9.19	7.94	8.87	4.57
Earnings per share before dilution, SEK <sup>4)</sup>	12.40	10.42	13.13	7.01	8.53	4.23
Earnings per share after dilution, SEK <sup>4)</sup>	12.40	10.42	13.13	7.01	8.53	4.23
Equity per share, SEK	29.13	26.76	23.95	22.87	19.95	15.64
Equity per share after dilution, SEK	29.13	26.76	23.95	22.87	19.95	15.64
Cash flow from operating activities per share, SEK	10.56	12.84	8.53	6.78	7.20	N/A
Cash flow from operating activities per share after dilution, SEK	10.56	12.84	8.53	6.78	7.20	N/A
Share price on the balance sheet date, SEK	317.50	326.00	300.00	281.50	179.50	179.50
Dividend per share, SEK	10.00 <sup>5)</sup>	9.00	7.50	5.00	5.00	5.00

<sup>1)</sup> Key ratio excluding license revenue from Nestlé of SEK 95.4 million.

<sup>2)</sup> Excluding discontinued operations. The subsidiary IBT was distributed to the shareholders in 2016.

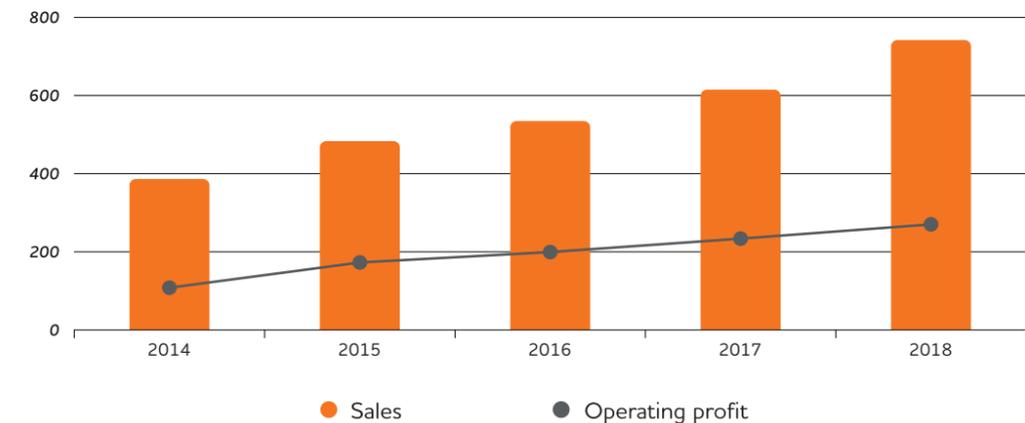
<sup>3)</sup> The share capital consists of 740,668 class A shares and 16,595,794 class B shares. The quota value is SEK 1 per share.

<sup>4)</sup> Key figures defined according to IFRS.

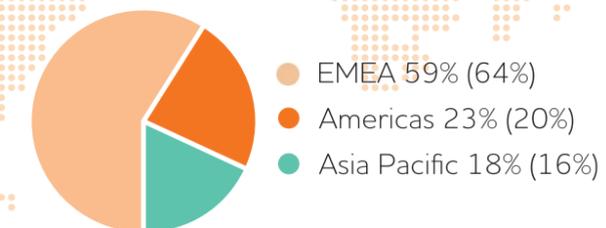
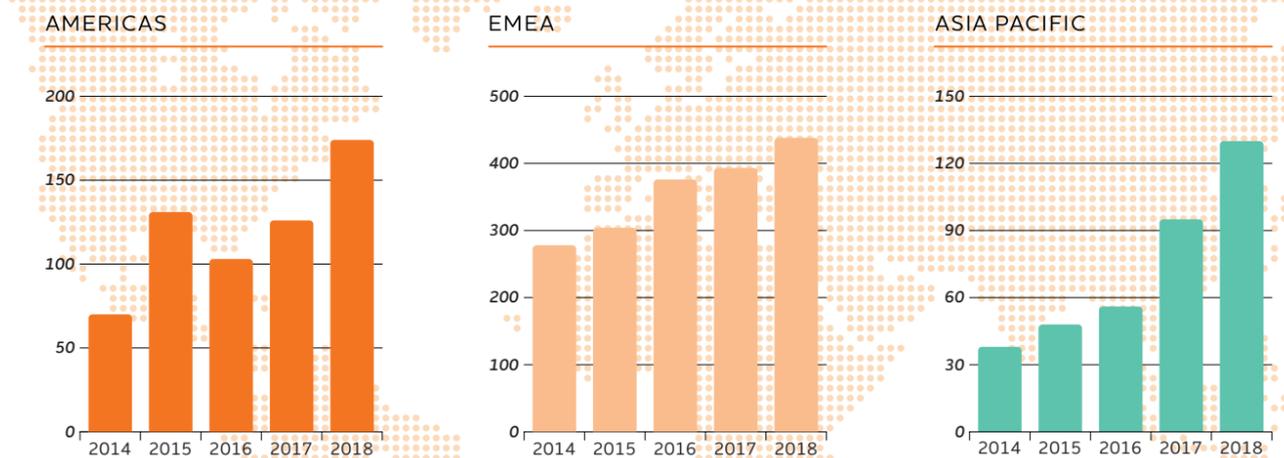
<sup>5)</sup> Dividend proposed but not yet approved.

For definitions of key ratios, see page 58.

# Five year development, sales and operating profit (EBIT), SEKm



# Sales per geographical market, SEKm



# GROUP

## STATEMENT OF COMPREHENSIVE INCOME

SEK 000s	Note	2018	2017
Net sales	2	741,870	615,003
Cost of goods sold	2	-185,956	-151,655
<b>Gross profit</b>	2	<b>555,914</b>	463,348
Selling expenses	3	-153,109	-127,115
Administrative expenses	3, 5	-27,653	-22,063
Research and development expenses	3, 4, 12	-99,742	-75,700
Share of profit of associates	6	-500	-820
Revaluation of former associate shareholding	4	7,004	-
Other operating expenses	7	-4,555	-4,659
<b>Operating profit</b>	8	<b>277,359</b>	232,991
Financial income	9	641	112
Financial expenses	10	-405	-192
<b>Net financial items</b>		<b>236</b>	-80
<b>Profit before tax</b>		<b>277,595</b>	232,911
Tax	11	-63,362	-52,347
<b>PROFIT FOR THE YEAR</b>		<b>214,233</b>	180,564
<i>Items that may be reclassified subsequently to profit or loss:</i>			
Gain/losses arising on translation of the financial statements of foreign operations:		-187	565
<b>Comprehensive income for the year</b>		<b>214,046</b>	181,129
<i>Profit for the year attributable to:</i>			
Owners of the Parent Company		214,890	180,564
Non-controlling interests		-657	-
		<b>214,233</b>	180,564
<i>Comprehensive income for the period attributable to:</i>			
Owners of the Parent Company		214,703	181,129
Non-controlling interests		-657	-
		<b>214,046</b>	181,129
<b>Earnings per share</b>			
Earnings per share, SEK*		12.40	10.42
Number of shares, thousands		17,336	17,336
Average number of shares, thousands		17,336	17,336

\*) No dilutive effects arose

## CASH FLOW STATEMENT

SEK 000s	Note	2018	2017
<b>Operating activities</b>			
Operating profit		277,359	232,911
<i>Adjustments for non-cash items:</i>			
Depreciation/Amortization		7,546	6,573
Unrealized gains/losses on forward exchange contracts		6,098	842
Revaluation of former associate shareholding	4	-7,004	-
Other non-cash items		1,497	1,716
		<b>285,496</b>	242,122
Interest received		641	113
Interest paid		-401	-270
Taxes paid		-52,408	-49,547
<b>Cash flow from operating activities before changes in working capital</b>		<b>233,328</b>	192,418
<i>Cash flow from changes in working capital:</i>			
Inventories		-12,694	8,333
Current receivables		-51,986	3,083
Trade payables		12,918	3,821
Current interest-free operating liabilities		1,554	14,960
<b>Cash flow from operating activities</b>		<b>183,120</b>	222,615
<i>Investing activities:</i>			
Purchase of property, plant and equipment	13	-13,454	-26,624
Sale of property, plant and equipment	13	75	-
Acquisition of subsidiary		-33,922	-
Reduction of long-term receivables		-	-19
<b>Cash flow from investing activities</b>		<b>-47,301</b>	-26,643
<i>Financing activities:</i>			
Dividend		-156,028	-130,023
Provision to foundation		-2,700	-2,400
Formation of BioGaia Pharma		-	2
<b>Cash flow from financing activities</b>		<b>-158,728</b>	-132,421
<b>CASH FLOW FOR THE YEAR</b>		<b>-22,909</b>	63,551
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>			
		<b>305,856</b>	243,069
Exchange difference in cash and cash equivalents		2,015	-764
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>		<b>284,962</b>	305,856

## STATEMENT OF FINANCIAL POSITION

SEK 000s	Note	31 Dec 2018	31 Dec 2017
<b>ASSETS</b>			
<i>Non-current assets:</i>			
Goodwill	12	5,300	-
Research and development project in progress	12	45,850	-
Property, plant and equipment	13	105,935	102,465
Investments in associates	6	-	9,932
Deferred tax assets	11	8,430	9,339
Deposits		43	39
<b>Total non-current assets</b>		<b>165,558</b>	121,775
<i>Current assets:</i>			
Inventories	16	44,213	32,612
Trade receivables	17, 21	123,529	80,101
Other receivables	19	12,810	8,419
Deferred expenses and accrued income	20	24,069	22,349
Short-term investments	21	4,832	5,000
Cash and cash equivalents	21	284,962	305,856
<b>Total current assets</b>		<b>494,415</b>	454,337
<b>TOTAL ASSETS</b>		<b>659,973</b>	576,112

## STATEMENT OF FINANCIAL POSITION

SEK 000s	Note	31 Dec 2018	31 Dec 2017
<b>EQUITY AND LIABILITIES</b>			
<i>Equity</i>			
Share capital	22	17,336	17,336
Other contributed capital		21,831	21,831
Reserves		1,537	1,724
Retained earnings		249,388	242,449
Profit for the year attributable to owners of the Parent Company		214,890	180,564
<b>Total equity attributable to owners of the Parent Company</b>		<b>504,982</b>	463,904
Non-controlling interests	14, 18	3,139	-16
<b>Total non-controlling interests</b>		<b>3,139</b>	-16
<b>Total equity</b>		<b>508,121</b>	463,888
<i>Non-current liabilities:</i>			
Deferred tax liability	11	6,679	778
<b>Total non-current liabilities</b>		<b>6,679</b>	778
<i>Current liabilities:</i>			
Prepayments from customers	21	24,852	36,648
Trade payables	21	34,009	20,893
Current tax liabilities	24	16,013	6,307
Other liabilities	24	12,950	6,711
Accrued expenses and deferred income	25	57,349	40,887
<b>Total current liabilities</b>		<b>145,173</b>	111,446
<b>Total liabilities</b>		<b>151,852</b>	112,224
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>659,973</b>	576,112

## STATEMENT OF CHANGES IN EQUITY

SEK 000s	Share capital	Other contributed capital	Foreign currency translation reserve	Retained earnings	Profit for the year	Equity of the Parent Company attributable to the owners	Non-controlling interests	Total equity
<b>Opening balance, 1 January 2017</b>	17,336	21,831	1,159	147,304	227,568	415,198	-18	415,180
Dividend				-130,023		-130,023		-130,023
Provision to foundation				-2,400		-2,400	0	-2,400
Formation of BioGaia Pharma							2	2
<b>Total transactions with owners</b>	0	0	0	-132,423	0	-132,423	2	-132,421
<i>Carried forward</i>				227,568	-227,568			
<b>Profit for 2017</b>				180,564	180,564	180,564	0	180,564
<i>Other comprehensive income</i>								
Translation differences on translation of foreign operations			565			565		565
<b>Comprehensive income for the year</b>	0	0	565	0	180,564	181,129	0	181,129
<b>Closing balance, 31 December 2017</b>	17,336	21,831	1,724	242,449	180,564	463,904	-16	463,888
<i>Effect of change of accounting standard</i>								
Remeasurement under IFRS 9				-313		-313		-313
Dividend				-156,028		-156,028		-156,028
Provision to foundation				-2,700		-2,700		-2,700
Non-controlling interests related to the acquisition of MetaboGen							17,062	17,062
Transaction between owners related to further acquisition of shares in MetaboGen				-14,584		-14,584	-13,250	-27,834
<b>Total transactions with owners</b>	0	0	0	-173,625	0	-173,625	3,812	-169,813
<i>Carried forward</i>				180,564	-180,564			
<b>Profit for 2018</b>				214,890	214,890	214,890	-657	214,233
<i>Other comprehensive income</i>								
Translation differences on translation of foreign operations			-187			-187		-187
<b>Comprehensive income for the year</b>	0	0	-187	0	214,890	214,703	-657	214,046
<b>Closing balance, 31 December 2018</b>	17,336	21,831	1,537	249,388	214,890	504,982	3,139	508,121

# PARENT COMPANY

## INCOME STATEMENT

SEK 000s	Note	2018	2017
Net sales	2	705,762	587,937
Cost of goods sold	2	-219,991	-177,578
<b>Gross profit</b>	2	<b>485,771</b>	410,359
Selling expenses	3	-130,219	-102,332
Administrative expenses	5	-23,547	-20,227
Research and development expenses	3, 5, 12	-91,834	-74,032
Other operating expenses	7	-4,625	-4,648
<b>Operating profit</b>	8	<b>235,546</b>	209,120
<i>Result from financial investments</i>			
Impairment loss on shares in group companies	14	-7,465	-1,427
Reversal of receivable in subsidiary	14	-	26,180
Interest income and similar profit/loss items	9	1,849	1,252
Interest expense and similar profit/loss items	10	-369	-3,003
<b>Net financial items</b>		<b>-5,985</b>	23,002
<b>Profit before tax</b>		<b>229,561</b>	232,122
Tax	11	-53,962	-45,502
<b>PROFIT FOR THE YEAR</b>		<b>175,599</b>	186,620

The Parent Company has no transactions in other comprehensive income, which means that comprehensive income for the year corresponds to profit for the year above. As a result, the Parent Company presents no separate statement of comprehensive income.

## CASH FLOW STATEMENT

SEK 000s	Note	2018	2017
<b>Operating activities</b>			
Operating profit		235,546	209,120
<i>Adjustments for non-cash items:</i>			
Depreciation/amortization		950	515
Other non-cash items		-1,851	897
		234,645	210,532
Interest received		1,849	1,252
Interest paid		-369	-174
Realized forward exchange contracts		6,098	-1,337
Taxes		-48,100	-46,698
<b>Cash flow from operating activities before changes in working capital</b>		<b>194,123</b>	163,575
<i>Cash flow from changes in working capital:</i>			
Inventories		-10,146	7,187
Current receivables		-50,230	-4,297
Trade payables		10,709	4,568
Current interest-free operating liabilities		5,286	-948
<b>Cash flow from operating activities</b>		<b>149,742</b>	170,085
<i>Investing activities:</i>			
Purchase of property, plant and equipment	13	-2,093	-3,897
Sale of property, plant and equipment		75	-
Purchase of financial assets	14	-45,523	-2,049
Repayment of loans from subsidiaries	15	10,000	23,352
<b>Cash flow from investing activities</b>		<b>-37,541</b>	17,406
<i>Financing activities:</i>			
Dividend		-156,028	-130,023
Provision for foundation		-2,700	-2,400
<b>Cash flow from financing activities</b>		<b>-158,728</b>	-132,423
<b>CASH FLOW FOR THE YEAR</b>		<b>-46,527</b>	55,068
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>		<b>270,050</b>	215,880
Exchange difference in cash and cash equivalents		1,209	-898
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>		<b>224,732</b>	270,050

## BALANCE SHEET

SEK 000s	Note	31 Dec 2018	31 Dec 2017
<b>ASSETS</b>			
<b>Non-current assets</b>			
<i>Property, plant and equipment</i>			
Property, plant and equipment	13		
Production equipment		4,157	3,724
Office equipment and computers		1,061	352
<b>Total property, plant and equipment</b>		<b>5,218</b>	4,076
<i>Financial assets</i>			
Investments in group companies	14	109,902	54,570
Investments in associates	14	-	12,001
Receivables from group companies	15	45,835	55,835
<b>Total financial assets</b>		<b>155,737</b>	122,406
<b>Total non-current assets</b>		<b>160,955</b>	126,482
<b>Current assets</b>			
Inventories	16	31,397	21,252
<i>Current receivables</i>			
Trade receivables	17, 21	103,827	68,058
Receivables from group companies	19	17,117	7,439
Other receivables	18	10,399	8,158
Deferred expenses and accrued income	20	20,480	17,767
<b>Total current receivables</b>		<b>151,823</b>	101,422
Short-term investments	21	4,832	5,000
Cash and cash equivalents		224,732	270,050
<b>Total current assets</b>		<b>412,784</b>	397,724
<b>TOTAL ASSETS</b>		<b>573,739</b>	524,206

## BALANCE SHEET

SEK 000s	Note	31 Dec 2018	31 Dec 2017
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
<i>Restricted equity</i>			
Share capital		17,336	17,336
Other restricted equity	22	1,253	1,253
		18,589	18,589
<i>Non-restricted equity</i>			
Retained earnings		255,914	228,022
Profit for the year		175,599	186,620
	23	431,513	414,642
<b>Total equity</b>		<b>450,102</b>	433,231
<b>Liabilities</b>			
<i>Current liabilities</i>			
Prepayments from customers		1,269	12,082
Trade payables		27,452	16,743
Liabilities to group companies	18	29,356	18,408
Other liabilities	24	8,847	2,427
Current tax liabilities	24	9,753	2,613
Accrued expenses and deferred income	25	46,960	38,702
<b>Total current liabilities</b>		<b>123,637</b>	90,975
<b>Total liabilities</b>		<b>123,637</b>	90,975
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>573,739</b>	524,206

## STATEMENT OF CHANGES IN EQUITY

	Share capital	Other restricted equity	Retained earnings	Profit for the year	Total equity
<b>Opening balance, 1 January 2017</b>	17,336	1,253	233,492	136,953	379,034
Carried forward			136,953	-136,953	0
Dividend			-130,023		-130,023
Provision for foundation			-2,400		-2,400
Profit for 2017				186,620	186,620
<b>Closing balance, 31 December 2017</b>	17,336	1,253	228,022	186,620	433,231
Carried forward			186,620	-186,620	0
Dividend			-156,028		-156,028
Provision for foundation			-2,700		-2,700
Profit for 2018				175,599	175,599
<b>Closing balance, 31 December 2018</b>	17,336	1,253	255,914	175,599	450,102

# Notes to the financial statements and accounting policies

All figures in SEK 000s unless otherwise specified. Figures in brackets refer to the previous year.

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## NOTE 1 ACCOUNTING POLICIES

**COMPLIANCE WITH NORMS AND LAWS** The consolidated financial statements have been prepared in compliance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and interpretations from the International Financial Reporting Interpretations Committee (IFRIC) that have been approved by the European Commission for application in the EU.

The Parent Company applies the Swedish Annual Accounts Act and the Swedish Financial Reporting Board's recommendation RFR 2, Accounting for Legal Entities, i.e. the same accounting policies as the Group except in cases where the Parent Company's compliance with the Swedish Annual Accounts Act limits the applicability of IFRS in the Parent Company.

**NEW OR REVISED IFRS STANDARDS AND NEW INTERPRETATIONS 2018** The accounting standards applied concur with those set out in the 2017 Annual Report with the exception of those applying to "Financial instruments" (IFRS 9 replaces IAS 39) and "Revenue from Contracts with customers" (IFRS 15 replaces IAS 18 och IAS 11).

**NEW OR REVISED IFRS STANDARDS AND NEW INTERPRETATIONS NOT YET EFFECTIVE** The new and revised standards and new interpretations that have been issued, but are effective for accounting periods beginning on or after 1 January 2019, have not yet been adopted by the Group. Below is a description of those that are assessed to have an impact on the consolidated financial statements in the period when they are applied for the first time.

Standards	Effective for financial years beginning:
IFRS 16 Leases	on or after 1 January 2019

- **IFRS 16 Leases** was issued on 13 January 2016 and will replace IAS 17 Leases. IFRS 16 introduces a "right of use model" that requires the lessee to recognize almost all leases in the balance sheet, for which reason leases are no longer classified as operating or finance leases. The exceptions are leases that have a term of 12 months or less and leases where the underlying asset has a low value. In the income statement, the entity recognizes depreciation on the asset and interest expenses on the liability. The standard contains more extensive disclosure requirements compared to the current standard. For the lessor, IFRS 16 entails no real changes compared to IAS 17. IFRS 16 is applicable for financial years beginning on 1 January 2019 with earlier adoption permitted provided IFRS 15 is applied at the same time. The standard was endorsed by the EU in December 2016. BioGaia applies IFRS 16 Leases with effect from 1 January 2019. BioGaia has carried out a review of all leasing and rental contracts. BioGaia has chosen the simplified transition method which means that on the date of initial application the right of use is set at an amount that corresponds to the lease liability. The right of use assets on the initial application date amount to SEK 24.8 million and leases with the highest materiality are rental contracts for the offices in Stockholm and Lund which amount to SEK 19.7 million and expire at the latest 2026. At 1 January 2019 the company's assets will increase by SEK 24.8 million and liabilities by corresponding amount.

**BASIS OF PREPARATION** The consolidated financial statements have been prepared on the historical cost basis unless otherwise specified.

Non-current assets, non-current liabilities and provisions essentially consist of amounts that are expected to be recovered or settled more than 12 months after the closing date. Current assets and current liabilities essentially consist of amounts that are expected to be recovered or settled within 12 months from the closing date.

Note 1, cont.

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in Note 28.

**BASIS OF CONSOLIDATION** The consolidated financial statements consolidate the operations of the Parent Company and the subsidiaries for the period ended 31 December 2018. The Parent Company controls the subsidiaries, and has the ability to affect returns from its involvement with the subsidiaries through its power over the subsidiaries. All subsidiaries have their balance sheet date on 31 December.

All intragroup transactions and balances are eliminated in full on consolidation, including unrealized gains or losses arising from inter-company transactions. In cases where unrealized losses on intragroup sales of assets are reversed on consolidation, the underlying asset is tested for impairment also from a group perspective. When necessary, amounts reported in the financial statements of subsidiaries have been adjusted to ensure conformity with the accounting policies of the Group.

Profit/loss and other comprehensive income for subsidiaries that are acquired or sold during the year are recognized from the date on which the acquisition or sale went into force, according to what is applicable.

Non-controlling interests, which are recognized as a component of equity, represent the share of the subsidiary's profit or loss and net assets that is not held by the Group. The Group attributes comprehensive income for the subsidiaries to owners of the Parent Company and non-controlling interests based on their respective holdings. Transactions involving the acquisition and disposal of shares in companies where there are non-controlling interests are recognized in the cash flow statement in "Cash flow from financing operations" and in the statement of changes in equity as "Transactions with owners".

**ASSOCIATES** Associates are companies over which the Group has a significant but not controlling interest. Investments in associates are accounted for according to the equity method on the acquisition date, and are thereafter adjusted by the company's share of changes in the associate's net assets.

**PROVISION TO "FOUNDATION TO PREVENT ANTIBIOTIC RESISTANCE"** Provision to the Foundation to prevent antibiotic resistance was approved at the AGM and is in accordance with the Swedish Companies Act, Chapter 17 section 5 on donations for charitable purposes. The provision is recognized as an equity transaction. Support for recognition of the provision in equity is found in the Conceptual Framework for Financial Reporting in the section Financial performance reflected by accrual accounting (1.17ff). BioGaia has made the assessment that the company does not have a controlling influence over the Foundation according to IFRS 10 which is why the Foundation is not consolidated. The assessment is based among other factors on the fact that the Foundation is an independent organ, that BioGaia has no right to proceeds (positive or negative) from the Foundation and that three out of five of the members of the board of the Foundation are external.

### FOREIGN CURRENCY TRANSLATION

- **Functional currency** The functional currency is the currency of the primary economic environments in which the Group's companies operate.
- **Transactions** Foreign currency transactions are translated to the functional currency at the rate of exchange ruling on the transaction date. Monetary assets and liabilities in foreign currency are translated to the functional currency at the closing day rate. Exchange differences arising on translation are recognized in profit or loss. Non-monetary assets and liabilities carried at cost are translated at the rate of exchange ruling on the transaction date. Non-monetary assets and liabilities measured at fair value are translated to the functional currency using the rates of exchange applying on the date when the fair value was determined.

Foreign exchange gains/losses on operating receivables and liabilities are recognized in operating profit, while foreign exchange gains/losses on financial receivables and liabilities are recognized in net financial items.

- **Derivatives** Growth in sales has also led to increased currency risks, for which reason the company has taken currency hedges in EUR and USD. The company's Board of Directors has issued a policy to hedge approximately 50-60% of projected cash flow 12 months forward and approximately 10-40% of projected cash flow 13-24 months forward in order to spread the risk for exchange rate fluctuations. The forward contracts are reported at fair value through profit or loss. A financial asset or liability is taken up in the balance sheet when the company becomes party to the contractual terms of the instruments.

- **Financial statements of foreign operations** Assets and liabilities in foreign group companies are translated from the group company's functional currency to the Group's presentation currency, SEK, at the closing day rate of exchange. Income and expenses in foreign operations are translated to SEK at an average rate that is a reasonable approximation of actual rates on the respective transaction dates. An average rate is computed quarterly. Exchange differences arising on translation of foreign group companies are recognized in other comprehensive income.

- **Net investments in group companies** Receivables from a foreign operation for which settlement is neither planned nor likely to occur in the foreseeable future are, in substance, part of the company's net investment in that foreign operation. Exchange differences arising on translation of long-term loans in foreign currency that form part of the net investment in a foreign operation are deferred to a translation reserve in other comprehensive income.

**REPORTING BY SEGMENT** Executive Management has analyzed the Group's internal reporting and determined that the Group's operations are monitored and evaluated based on the following segments:

- **Pediatrics segment** (drops, gut health tablets, oral rehydration solution (ORS) and cultures to be used as ingredients in licensee products (such as infant formula), as well as royalty revenue for pediatric products.)
- **Adult Health segment** (gut health tablets, oral health lozenges and cultures as an ingredient in a licensee's dairy products).
- **Other** (royalties in respect of development projects, revenue from packaging solutions in the subsidiary CapAble, etc.)

Sales and gross profit are reported for the above segments and are monitored regularly by the CEO (who is regarded as the chief operating decision maker) together with Executive Management. There is no monitoring of the company's total assets and liabilities against the segments' assets.

**IFRS 15** BioGaia applies IFRS 15 for revenue recognition. IFRS 15 means that revenue is recognized when control is transferred to a purchaser compared with the current method that is based on risks and rewards. The analysis of the introduction of IFRS 15 has been based on a detailed review of BioGaia's revenue streams. BioGaia has chosen to apply the modified retrospective method for transfer to IFRS 15. According to IFRS 15 this means that BioGaia recognizes the combined effect of initial application of this standard as an adjustment to the opening balance of retained earnings for the financial year that includes the initial date of application, i.e. 1 January 2018 in BioGaia's case. This means that IFRS 15 is only applied retrospectively for contracts that are not completed at 1 January 2018. BioGaia has chosen to apply this practical solution to all contract changes that take place before the date of initial application (i.e. 1 January 2018) to not retroactively recalculate the contract for these contract changes.

After its completed analysis, BioGaia assesses that the effect on the consolidated financial statements will not have an impact on BioGaia's consolidated financial statements for 2018.

- **IFRS 15** includes a new model for revenue recognition (the five-step model) that is based on when control of a good or service is transferred to the customer. The basic principle is that an entity recognizes revenue to differentiate between the transfer of promised goods or services to customers and an amount that reflects the compensation to which the entity is expected to be entitled in exchange for such goods or services.
  - Step 1. Identify the contract with a customer
  - Step 2. Identify the performance obligations in the contract
  - Step 3. Determine the transaction price
  - Step 4. Allocate the transaction price to each performance obligation
  - Step 5. Recognize revenue when a performance obligation is satisfied
 Revenue is recognized on the basis of the amount specified in a contract with a customer and does not include any amounts received on account of a third party. BioGaia recognizes revenue when the Group transfers control of a product or service to a customer. Details of these new requirements and BioGaia's revenue streams are provided below.

**REVENUE RECOGNITION** BioGaia's revenues mainly comprise sales of goods. No commitment for BioGaia remains after delivery since BioGaia does not provide customers with any extended guarantees or the option to return. Control is transferred to the customer when the good is placed at the disposal of the purchaser.

In addition to the sales of goods, other revenues consist of royalties or exclusivity rights linked to product distribution in a defined market/territory. These contracts include obligations over time and revenue is recognized in pace with fulfilment of BioGaia's performance obligations. The transaction price, i.e. the compensation BioGaia expects to receive in exchange for the goods and services is in most cases fixed and therefore easy to determine. Variable compensation exists in individual cases often in combination with minimum levels relating to compensation which simplifies assessment of the transaction price.

Interest income is recognized in profit or loss in the period to which it pertains.

In summary, the transfer to IFRS 15 will result in no change in BioGaia's accounting as regards the timing of revenue recognition.

**LEASING** Leased assets are classified as operating leases, since all the risks and rewards incidental to ownership have not been substantially transferred to BioGaia. As a result, the lease payments are recognized on a straight-line basis over the term of the lease.

**PENSIONS** All employees in Sweden are subject to mandatory retirement in accordance with Swedish legislation, and other employees in accordance with the respective country's legislation. The company has no pension commitments other than payment of annual pension insurance premiums. The pension insurance premiums are of the defined contribution type and are expensed as incurred.

**INCOME TAXES** Current tax refers to the tax computed on taxable profit for the period. Taxable profit differs from recognized profit in the consolidated income statement in that it has been adjusted for non-taxable income and non-deductible expenses and for items of income and expense that are taxable or deductible in other periods. Deferred tax refers to the tax computed partly on the basis of temporary differences and partly on tax losses. At every closing date, an assessment is made to determine whether to recognize deferred tax assets not previously recognized in the balance sheet. Such tax assets are recognized to the extent that it is probable that there will sufficient taxable profits against which to utilize these in the future.

**RESEARCH AND DEVELOPMENT EXPENSES** Expenditure on research activities is recognized as an expense in the period in which it is incurred. An internally-generated intangible asset arising from development is recognized if, and only if, all of the following have been demonstrated:

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

Other expenditure on development activities is recognized as an expense in the period in which it is incurred. An individual assessment of all ongoing research and development projects is made quarterly to determine which costs can be capitalized. The carrying amount of capitalized expenditure includes all directly attributable costs such as materials, purchased services and employment costs.

BioGaia typically has research activities in the form of clinical studies underway parallel to product development. Much of BioGaia's product development consists of stability tests to ensure that the products remain stable throughout their shelf lives. While the clinical studies and stability tests are in progress, it is often not possible to be certain that the project will be successful and that the product can be sold. This means that projects often do not meet the requirements for capitalization. Other aspects of product development include finding new delivery systems and developing existing products.

Amortization of capitalized development costs is started when the asset can be used and the products begin generating revenue, and is carried out on a straight-line basis over the expected useful life of the asset

#### INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

Intangible assets and property, plant and equipment are recognized at cost less accumulated amortization/ depreciation according to plan and any impairment. Intangible assets are amortized on a straight-line basis over their expected useful lives.

The following depreciation schedules are applied for property, plant and equipment:

#### PROPERTY, PLANT AND EQUIPMENT

Production and laboratory equipment	5–10 years
Equipment and computers	3–5 years
Buildings	20-60 years

The carrying amounts of the Group's assets are reviewed at each balance sheet date to look for any indication that an asset may be impaired. Incomplete projects are tested for impairment annually. The cash-generating unit is the applicable segment. If impairment is indicated, the recoverable amount of the asset is calculated. If this is lower than the carrying amount, the value is written down to the recoverable amount.

Depreciation of buildings is started when construction is completed. For electrical and internal construction work, etc., the depreciation period is 20-30 years, and for framework and foundation the depreciation period is 60 years.

**INVENTORIES** Inventories are measured at the lower of cost and net realizable value, including provisions for obsolescence. Cost is measured according to purchase price.

**SHORT-TERM INVESTMENTS** Short-term investments include interest rate funds that the company intends to dispose of within 12 months from the balance sheet date.

**CASH AND CASH EQUIVALENTS** Cash and cash equivalents comprise cash on hand and in banks.

#### FINANCIAL ASSETS AND LIABILITIES

**IFRS 9** The Group has reviewed its financial assets and liabilities and assessed that the effects of IFRS 9 on the consolidated financial statements at 1 January 2018 amounts to SEK 0.3 million. According to IFRS 9 entities shall recognize a reserve that corresponds to expected credit losses within the next 12 months. This means that BioGaia's trade receivables are written down at initial application of IFRS 9. In assessment of the credit risk, incurred credit losses and an adjustment for expected future losses provide the basis for the reserve. BioGaia has no incurred credit losses. Default rate shall be evaluated each quarter.

The adjustment relates to a reserve for uncertainty in trade receivables and has been recognized in changes in equity. At 31 December 2018 the reserve amounted to SEK 0.5 million. The difference compared to 1 January 2018 is recognized in profit or loss. The Group has also changed policy from recognition of all derivatives in net financial items to recognition based on the item they hedge. Changes in value in relation to operating receivables, liabilities and derivatives are recognized in operating profit or loss while changes in value of financial receivables, liabilities and derivatives are recognized in net financial items. Forward contract hedges are recognized at fair value through profit or loss in accordance with the items they hedge. This means the company's exchange gains and losses relating to forward exchange contracts are recognized in operations with effect from 1 January 2018.

#### New accounting standards according to IFRS 9 Financial Instruments are provided below.

The Group applies IFRS 9 with effect from 1 January 2018. 2017 is reported according to IAS 39 in accordance with transition rules.

- **Financial instruments** Financial instruments recognized in the statement of financial position include on the assets side cash and cash equivalents, trade receivables, other current receivables and currency derivatives to the extent these have a positive fair value. On the liabilities side, there are trade payables, other current liabilities, loans and currency derivatives to the extent these have a negative fair value. The category to which the Group's financial assets and liabilities belong is specified in Note 21 Financial assets and liabilities – classification and measurement of fair value.

- **Recognition and derecognition from the statement of financial position** A financial asset or liability is recognized in the statement of financial position when the company becomes party to the contractual terms of the instrument. A receivable, except trade receivables, is recognized when the company has performed and a contractual obligation exists for the counterparty to pay, even if no invoice has yet been sent. Trade receivables are recognized in the statement of financial position when an invoice has been sent. Liabilities, except trade payables, are recognized when the counterparty has performed and a contractual obligation to pay exists, even if an invoice has not yet been received. Trade payables are taken up when an invoice is received. A financial asset is derecognized from the statement of financial position when the contractual rights are realized, expire or the company has relinquished control. The same applies to part of a financial asset. A financial liability is derecognized from the statement of financial position when the contractual obligations are met or otherwise extinguished. The same applies to part of a financial liability. No currency derivatives or other financial assets and liabilities are offset in the statement of financial position since the terms for offsetting are not met. Acquisition and disposal of financial assets are recognized on the transaction date. The transaction date is the day the company undertakes to acquire or dispose of the asset.

- **Classification and measurement** Financial assets are classified on the basis of the business model in which the asset is held and its cash flow characteristic. If the financial asset is held within the framework of a business model whose objective is collecting contractual cash flows and the financial assets at identified dates give rise to cash flows that are solely payments of principal and interest on the principal, the asset is recognized at amortized cost.

If the financial asset is held in a business model whose objective can be achieved both by collecting contractual cash flows and selling financial assets and the contractual terms of the financial asset give rise to cash flows that are solely payments of principal and interest on the principal at identified dates, the asset is recognized at fair value through other comprehensive income.

All other business models where the purpose is speculation, held for trading or where the cash flow characteristic excludes other business models result in recognition at fair value through profit or loss.

- **Amortized cost and effective interest method** Amortized cost for a financial asset is the amount at which the financial asset is measured at initial recognition minus principal repayments, plus the cumulative amortization using the effective interest method of any difference between that principal and the outstanding principal, adjusted for any impairment. The gross carrying amount of a financial asset is the amortized cost of a financial asset before adjustment for any loss allowance.

- **Financial liabilities** Financial liabilities are recognized at amortized cost using the effective interest method or at fair value through profit or loss.

- **Financial liabilities at amortized cost** Loans and other financial liabilities, e.g. trade payables, are included in this category. Liabilities are measured at amortized cost.

- **Financial liabilities at fair value through profit or loss** This category consists of financial liabilities held for trading. This category includes the Group's derivatives with negative fair value.

- **Impairment** Effective from 1 January 2018 the Group recognizes a loss allowance for expected credit losses on a financial asset measured at amortized cost or fair value through other comprehensive income, for a lease receivable or for a contract receivable. At each closing date, the Group shall recognize in profit or loss the change in expected credit losses since the initial recognition date.

For trade receivables, contract assets and lease receivables there is a simplified model which means that the Group recognizes directly expected credit losses for the remaining term of the asset. The expected credit losses for these financial assets are calculated with the aid of a provision matrix which is based on historical events, current conditions and forecasts for future economic conditions and the time value of the money if applicable. For all other financial assets the Group shall measure a loss allowance to an amount that corresponds to 12 months' expected credit losses. For financial instruments for which a significant increase in credit risk has occurred since the initial recognition date, an allowance is recognized based on credit losses for the entire term to maturity of the asset. Equity instruments are not subject to these impairment rules.

Default is based on an assessment that it is improbable that a counterparty will meet its commitments on the basis of indicators such as financial difficulties and failure to pay. Regardless of the above, default occurs at the latest when the payment is 90 days overdue.

#### MEASUREMENT OF FINANCIAL INSTRUMENTS AT FAIR VALUE

Financial assets and financial liabilities measured at fair value in the balance sheet, or where a disclosure of fair value is provided, are classified in one of three levels based on the information used to determine fair value.

- **Level 1**, Financial instruments where fair value is determined based on observable (unadjusted) quoted prices in an active market for identical assets and liabilities. A market is regarded as active if quoted prices from a stock exchange, broker, industrial group, pricing service or supervisory authority are readily and regularly available and these prices represent actual and regularly occurring arm's length market transactions.

- **Level 2**, Financial instruments where fair value is determined based on valuation models based on observable inputs for the asset or liability other than quoted prices included in Level 1, either direct (such as price quotations) or indirect (derived from price quotations).

Examples of observable inputs within Level 2:

- Quoted prices for similar assets and liabilities.
- Data on which an assessment of price can be based, such as market interest rates and yield curves.
- **Level 3**, Financial instruments where fair value is determined based on valuation models where significant inputs are based on unobservable data.

#### Accounting principles for financial instruments in 2017 according to IAS 39 are provided below

Financial assets and liabilities recognized in the balance sheet on the assets side include cash and cash equivalents, short-term investments, trade receivables, and loans and receivables. Liabilities and equity include trade payables and prepayments from customers.

Financial assets and liabilities are initially measured at cost, corresponding to fair value including transaction costs for all financial assets and liabilities not measured at fair value through profit or loss. Subsequent measurement depends on how the instruments have been classified according to the following.

Financial assets in the Group refer to shares in a company where the holding is below 20% and the Group does not have control.

When the holding exceeds 20% (and control does not exist), the shares in the company will instead be recognized as investments in associates.

A financial asset or liability is recognized in the balance sheet when the company initially becomes party to the contractual provisions of the instrument. Financial liabilities are recognized when the counterparty has performed and there is contractual obligation to pay, even if no invoice has been received. Trade receivables are initially measured at cost and subsequently at amortized cost less provision for impairment. Impairment losses on trade receivables are recognized in profit or loss. Trade payables are recognized when an invoice has been received.

The purchase or sale of other financial assets is recognized on the trade date, which is the date on which the company commits to purchase or sell the asset.

A financial asset is derecognized from the balance sheet when the company's rights under the agreement are realized, expire or the company has relinquished control of the asset. The same applies to a part of a financial asset. A financial liability is derecognized from the balance sheet when the obligation specified in the agreement is discharged or otherwise extinguished. The same applies to a part of a financial liability.

The company classifies its financial assets and liabilities in the following categories: financial assets and liabilities at fair value through profit or loss, loans and receivables, held-to-maturity investments and other financial liabilities.

In accordance with IFRS 7 Financial Instruments, is it specified in connection with the note, regarding the balance sheet item for all financial instruments measured at fair value, which of the following levels of measurement has been used:

- **Level 1**, fair value is determined based on quoted prices in an active market for the instrument.
- **Level 2**, fair value is determined based on a valuation technique using observable market data, either direct (such as prices) or indirect (derived from prices), and which are not included in level 1
- **Level 3**, fair value is determined with the help of valuation techniques, using significant inputs that are unobservable in the market.

**ACCOUNTING POLICIES OF THE PARENT COMPANY** The differences between the accounting policies applied by the Group and the Parent Company are described below. The following accounting policies for the Parent Company have been applied consistently for all periods presented in the Parent Company financial statements.

- **Presentation** The income statement and balance sheet of the Parent Company are presented in accordance with the schedules in the Swedish Annual Accounts Act.
- **Income taxes** In the Parent Company, untaxed reserves are recognized including the deferred tax liability. In the consolidated financial statements, however, untaxed reserves are divided between the deferred tax liability and equity.
- **Subsidiaries** In the Parent Company, shareholdings in subsidiaries are accounted for on a historical cost basis. The carrying amount is tested regularly against the subsidiaries' consolidated equity.

#### REVISED ACCOUNTING STANDARDS

- **IFRS 9 Financial Instruments** The new standard for financial instruments relates to classification, measurement and recognition of financial assets and liabilities. For a description of IFRS 9, see the corresponding section for the Group above. In view of the relationship between accounting and taxation, IFRS 9 is not applied in legal entities.
- **IFRS 15 Revenue from Contracts with Customers** Changes in RFR 2 relating to IFRS 15 must be applied on 1 January 2018 or later. For a description of IFRS 15, see the corresponding section for the Group above. The transfer to IFRS 15 has not had an impact on the Group nor on the Parent Company.

Other changes to RFR 2 have not had a material impact on the Parent Company's financial statements in 2018.

#### APPROVED CHANGES TO RFR 2 THAT HAVE NOT YET COME INTO EFFECT

The Swedish Financial Reporting Board has also approved the following changes that have not yet come into effect.

- **IFRS 16 Leases** In view of the relationship between accounting and taxation, IFRS 16 will not be applied in legal entities.

#### DEFINITIONS OF KEY RATIOS

Key ratio	Definition/Calculation	Purpose
<b>Return on equity</b>	Profit attributable to the owners of the Parent Company divided by average equity attributable to the owners of the Parent Company.	Return on equity is used to measure profit generation, over time, given the resources attributable to the owners of the Parent Company.
<b>Return on capital employed</b>	Operating profit plus financial income as a percentage of average capital employed.	Return on capital employed is used to analyze profitability, based on the amount of capital used.
<b>Current ratio</b>	Total current assets divided current liabilities.	The current ratio shows the company's short-term solvency.
<b>Equity per share</b>	Shareholders' equity attributable to the owners of the Parent Company divided by the average number of shares.	Shareholders' equity per share measures the company's net value per share and indicates whether a company will increase the shareholders' wealth over time.
<b>Equity per share, diluted</b>	Equity attributable to the owners of the Parent Company at the end of the period divided by the average number of shares at the end of the period, after dilution.	Shareholders' equity per share, diluted, measures the company's net value per share after any dilution owing to ongoing incentive schemes. Shows the company's realized sales growth over time or similar and indicates whether a company will increase the shareholders' wealth over time.
<b>Cash flow from operating activities per share</b>	Cash flow from operating activities during the period divided by the average number of shares during the period.	Cash flow from operating activities per share measures the cash flow generated by the company per share before capital expenditure and cash flow attributable to the company's financing.
<b>Cash flow from operating activities per share after dilution</b>	Cash flow from operating activities divided by the average number of shares plus the number of outstanding warrants with a dilutive effect.	Cash flow from operating activities per share measures the cash flow generated by the company per share (plus the number of outstanding shares with a dilutive effect) before capital expenditure and cash flow attributable to the company's financing.

<b>Operating margin (EBIT margin)</b>	Operating profit expressed as a percentage of net sales.	The operating profit margin is used to measure operational profitability.
<b>Operating income</b>	Income before financial items and tax.	Operating income is used to measure operating profitability.
<b>Equity/assets ratio</b>	Shareholders' equity at the end of the period as a percentage of total assets.	A traditional measure to show financial risk expressed as the share of total assets financed by the shareholders. Shows the company's stability and ability to withstand losses.
<b>Capital employed</b>	Total assets less interest-free liabilities.	Capital employed measures the total amount of investment needed to keep a company's running, and includes both equity and debt.
<b>Growth</b>	Sales for the current year less sales for the previous year divided by sales for the previous year.	Shows the company's realized sales growth over time.
<b>Earnings per share (EPS)</b>	Profit after tax attributable to owners of the Parent Company divided by the average number of shares (definition according to IFRS).	EPS measures how much of net profit is available for payment to the shareholders as dividends per share.
<b>Earnings per share (EPS), diluted</b>	Profit from continuing operations attributable to owners of the Parent Company by the average number of shares after dilution.	EPS, diluted, measures how much of net profit is available for payment to the shareholders as dividends per share after any dilution owing to ongoing incentive schemes or similar.
<b>Earnings per share in continuing operations</b>	Profit after tax attributable to owners of the Parent Company divided by the average number of shares.	EPS measures how much of net profit in ongoing operations is available for payment to the shareholders as dividends per share in ongoing operations.
<b>Profit margin</b>	Profit before tax in relation to net sales.	This key ratio makes it possible to compare profitability regardless of the corporate income tax.

#### RECONCILIATION AGAINST IFRS

	2018	2017
<b>Return on capital employed</b>		
Operating profit	277,359	232,991
Financial income	641	112
Profit before financial items + financial income	278,000	233,103
Total assets	659,973	576,112
Interest-free liabilities	-145,173	-111,446
Capital employed	514,800	464,666
Average capital employed	489,733	440,089
Return on capital employed	57%	53%
<b>Return on equity</b>		
Profit after tax equity attributable to the owners of the Parent Company	214,890	180,564
Shareholders' equity attributable to the owners of the Parent Company	504,982	463,904
Average equity attributable to the owners of the Parent Company	484,444	439,551
Return on equity	44%	41%
<b>Current ratio</b>		
Total current assets (A)	494,415	454,337
Current liabilities B	145,173	111,446
Current ratio (A/B)	3.4	4.1

	31 Dec 2018	31 Dec 2017
<b>Equity/assets ratio</b>		
Equity (A)	508,121	463,888
Total assets (B)	659,973	576,112
Equity/assets ratio (A/B)	77%	81%
<b>Operating margin</b>		
Operating profit (A)	277,359	232,991
Net sales (B)	741,870	615,003
Operating margin (A/B)	37%	38%
<b>Profit margin</b>		
Profit before tax (A)	277,595	232,911
Net sales (B)	741,870	615,003
Profit margin (A/B)	37%	38%
<b>Equity per share</b>		
Equity attributable to owners of the Parent Company (A)	504,982	463,904
Average number of shares (B)	17,336	17,336
Equity per share (A/B)	29,13	26,76
<b>Cash flow from operating activities per share</b>		
Cash flow from operating activities (A)	183,120	222,615
Average number of shares (B)	17,336	17,336
Cash flow from operating activities per share	10,56	12,84

#### CHANGE IN SALES BY SEGMENT

Description	Definition	Pediatrics 2018	Adult Health 2018	Other 2018	Total 2018	
A	The previous year's net sales according to the average rate	492,550	116,176	6,277	615,003	
B	Net sales for the year according to the average rate	596,457	141,680	3,733	741,870	
C	Reported change	B-A	103,907	25,504	-2,544	126,867
	Percentage change	C/A	21%	22%	-41%	21%
D	Net sales for the year according to the previous year's average rate	575,392	135,243	3,733	714,368	
E	Foreign exchange effects	C-F	21,065	6,437	0	27,502
	Foreign exchange effects, %	E/A	4%	6%	0%	4%
F	Organic change	D-A	82,842	19,067	-2,544	99,365
	Organic change, %	F/A	17%	16%	-41%	16%

#### AVERAGE KEY EXCHANGE RATES

	Group	
	2018	2017
EUR	10.26	9.63
USD	8.69	8.54
JPY	7.87	7.61

#### NOTE 2 SEGMENT REPORTING

BioGaia's operating segments consist of Pediatrics and Adult Health. The Pediatrics segment includes sales of drops, oral rehydration solution (ORS), gut health tablets and also cultures as an ingredient in a licensee's product (such as infant formula), as well as royalties pertaining to Pediatric products.

The Adult Health segment mainly includes gut health tablets, oral health products and also sales of cultures as an ingredient in a licensee's dairy product and royalties from the sale of Adult health products. Other consists of a number of smaller segments such as royalties from the collaboration with Nestlé and revenue from packaging solutions in the subsidiary CapAble. Together these account for less than 10% of sales and are therefore not reported separately.

#### NET SALES BY SEGMENT

	Group	
	2018	2017
Pediatrics	596,457	492,550
Adult Health	141,680	116,176
Other	3,733	6,277
	741,870	615,003

#### GROSS PROFIT BY SEGMENT

	2018	2017
Pediatrics	451,636	378,936
Adult Health	100,711	78,173
Other	3,567	6,239
	555,914	463,348
Selling, administration and R&D expenses	-280,504	-224,878
Share in profit of associates	-500	-820
Revaluation of former associate shareholding	7,004	-
Other operating income/expenses	-4,555	-4,659
Operating profit	277,359	232,991
Net financial items	236	-80
Group profit before tax	277,595	232,911

In 2018, SEK 228.4 million (204.8), or 30.8% (33.3%) of revenue in the Group, was attributable to three customers. The two largest of these three customers belong to the Pediatrics segment, while the third belongs to both the Pediatrics and Adult Health segments. In 2018 as in 2017 there was one customer that accounted for more than 10% of sales.

#### Asia Pacific

Pediatrics	49,303	31,236
Adult Health	80,599	63,993
Other	172	246
	130,074	95,475

#### EMEA

Pediatrics	379,144	338,716
Adult Health	55,177	49,394
Other	3,555	5,360
	437,876	393,470

#### Americas

Pediatrics	168,010	122,598
Adult Health	5,904	2,789
Other	6	671
	173,920	126,058
Total	741,870	615,003

## DATE OF RECOGNITION

	Group		Parent Company	
	2018	2017	2018	2017
Performance obligations met on specific date (Product sales)	662,148	522,093	632,842	495,027
Performance obligations met over time (Licenses and royalties)	79,722	92,910	72,920	92,910
Total	741,870	615,003	705,762	587,937

## CONTRACTUAL ASSETS

Accrued revenue (Royalties)	18,480	16,731	17,718	16,731
Total	18,480	16,731	17,718	16,731

Contractual assets where performance obligations are met over time refers to royalties. The variation between the periods is related to timing of invoicing.

## CONTRACTUAL LIABILITIES

Prepayments from customers (Licenses and royalties)	24,852	36,648	1,269	12,082
Total	24,852	36,648	1,269	12,082

Contractual liabilities where performance obligations are met at a specific date refers to accruals related to license and royalty revenue. The variation relates to resolution of license and royalty liabilities.

## PERFORMANCE OBLIGATIONS MET ON SPECIFIC DATE (PRODUCT SALES)

	Group	
	2018	2017
Pediatrics	523,537	410,099
Adult Health	136,606	106,902
Other	2,005	5,092
	662,148	522,093

## PERFORMANCE OBLIGATIONS MET OVER TIME (ROYALTIES)

Pediatrics	72,920	82,451
Adult Health	5,074	9,274
Other	1,728	1,185
	79,722	92,910

More than 90% of the Group's total assets, amounting to SEK 660.0 million (576.1), are located in Europe.

Of the Group's capital expenditure on property, plant and equipment and intangible assets, totaling SEK 13.5 million (26.7), more than 90% pertained to Europe.

Sales in Sweden amounted to SEK 19.2 million (15.0), or 3% (2%) of total sales in the Group. The Group's largest markets consist of Brazil, Finland, Italy, Japan, Spain and USA. These markets account for approximately 36% (33%) of total revenue in the Group.

The Group's non-current assets amount to SEK 165.6 million (121.8), of which SEK 156.5 million (121.4) is located in Sweden and SEK 9.1 million (0.4) in other countries (the USA and Japan).

## NOTE 3 EMPLOYEES AND PERSONNEL EXPENSES, REMUNERATION TO SENIOR EXECUTIVES

## AVERAGE NUMBER OF EMPLOYEES BY COUNTRY

	2018	Of whom, men	2017	Of whom, men
<i>Parent Company:</i>				
Sweden	86	26	76	25
<i>Subsidiaries:</i>				
Sweden	31	19	29	17
Japan	11	7	8	6
USA	2	2	2	2
Total subsidiaries	44	28	39	25
<b>Total Group</b>	<b>130</b>	<b>54</b>	115	50

The number of employees in the Group at 31 December 2018, was 143 (120).

## SALARIES AND OTHER REMUNERATION DIVIDED BY COUNTRY AND BETWEEN THE BOARD/CEO AND OTHER EMPLOYEES

	2018 Board and CEO	2018 Other employees	2017 Board and Managing Director	2017 Other employees
<i>Parent Company:</i>				
Sweden	6,321	62,389	4,235	51,906
<i>Subsidiaries:</i>				
Sweden	3,513	11,558	2,362	7,486
Japan	3,167	6,025	2,851	3,481
USA	–	3,563	–	2,963
Total subsidiaries	6,680	21,146	5,213	13,930
<b>Total Group</b>	<b>13,001</b>	<b>83,535</b>	9,448	65,836

## TOTAL SALARIES AND SOCIAL SECURITY EXPENSES

	Group		Parent Company	
	2018	2017	2018	2017
Salaries and other remuneration	96,536	75,283	68,710	56,141
Pension expenses for the Board and Managing Director	1,386	1,298	360	611
Pension expenses for other employees	9,054	7,565	8,157	6,879
Other social security expenses	27,970	22,357	22,719	18,418
	134,946	106,503	99,946	82,049

**PENSIONS AND HEALTH INSURANCE** All employees in Sweden are subject to mandatory retirement in accordance with Swedish law. The company has no pension commitments other than payment of annual pension insurance premiums.

For all employees except the CEO\*) over the age of 25 years, the following pension insurance premiums are paid in relation to salary:

Pensionable salary within the range:	0–7.5 base amounts	>7.5–30 base amounts	>30 base amounts
Premium	4.5%	30%	0%

\*) For the CEO pension insurance premiums are paid with 6% within 7.5 base salary amounts and with 30% above 7.5 base salary amounts.

All employees are covered by health insurance, with benefits. This health insurance is activated after 90 days of sick leave. Together with the employer's health insurance and compensation from the Social Insurance Agency, the employee receives total benefits equal to approximately 65 – 87% of salary after a qualifying period of 3 months (depending on the level of salary).

The company also pays sick pay during the qualifying period (see above), i.e. from day 15 to day 90, when the health insurance is activated. Compensation from the Swedish Social Insurance Agency from day 15 corresponds to just under 80% of salary and is payable in a maximum amount corresponding to an annual salary of 7.5 price base amounts. During this period, the company pays compensation for loss of income so that the employee, regardless of salary level, receives a total of 80% of salary together with compensation from the Swedish Social Insurance Agency.

**BIOGAI'S INCENTIVE SCHEME FOR THE EMPLOYEES** The company has a bonus program aimed at ensuring employees' long-term commitment to BioGaia. The program is designed as follows: The bonus is based on the company's sales and profits. The maximum bonus amounts to 12% of salary. The employee is required to reinvest one-third of the yearly paid-out bonus (after tax) in BioGaia class B shares at a market price and to hold these for a three-year period. BioGaia has no obligation to repurchase shares nor does the employee have any obligation to sell shares in the event employment is terminated within three years from the date reinvestment took place. Maximum bonuses were achieved for 2018 and the cost of the program amounted to SEK 10.9 million (5.6).

**REMUNERATION TO SENIOR EXECUTIVES** Remuneration to the Chairman and members of the Board is paid according to the decision of the Annual General Meeting. The Board has appointed a Remuneration Committee consisting of Board Chairman Peter Rothschild and Board member Peter Elving. The Remuneration Committee handles matters related to remuneration and other terms of employment of senior executives. The principles for remuneration to senior executives are approved by the Annual General Meeting. The task of the Remuneration Committee is to prepare recommendations in accordance with these principles.

Remuneration to the CEO and other senior executives employed by the company consists of basic salary and other benefits. Other senior executives consist of the 8 persons who together with the CEO make up the Executive Management.

In the event of termination by the company, the CEO and Vice Presidents are entitled to full salary during an 18 month period of notice. In the event of termination by the company, other senior executives have a statutory notice period of at least 3 months in accordance with the Swedish Employment Protection Act. In other respects, the CEO has the same benefits as other employees.

Otherwise, no agreements for termination benefits exist for the CEO or other senior executives.

## REMUNERATION AND OTHER BENEFITS DURING THE YEAR

	Directors' fees	Basic salary	Variable salary	Other remuneration	Pension insurance incl. health insurance	Total
<i>Board Chairman</i>						
Peter Rothschild	600	2,017	240			2,857
<i>Vice Chairman</i>						
David Dangoor	400					400
<i>Board members:</i>						
Ewa Björling	200					200
Peter Elving	200					200
Inger Holmström	200					200
Anthon Jahreskog	200					200
Brit Stakston	200					200
<i>Managing Director</i>						
Axel Sjöblad		3,539		165	251	3,955
<i>CEO:</i>						
Isabelle Ducellier	106	427	448		109	1,090
<i>Other senior executives (8 persons):</i>		10,831	1,108		2,619	14,558
	<b>2,106</b>	<b>16,814</b>	<b>1,796</b>	<b>165</b>	<b>2,979</b>	<b>23,860</b>

Comment on the table above: Other remuneration consists of housing benefits.

## GENDER DISTRIBUTION

	2018 Women	2018 Men	2017 Women	2017 Men
Board members	3	4	4	4
Management including Managing Director and Group President	6	3	5	4

## NOTE 4 ACQUISITION OF SUBSIDIARY

On 6 April 2018, BioGaia acquired 26% of MetaboGen AB for SEK 11.7 million. The purchase consideration was paid in cash. BioGaia already held 36% of the company and recognized it as an associated company. In a step acquisition, all previous equity interests in the acquiree are adjusted to fair value and all gains and losses thus arising are recognized in profit or loss. As a result of this, a gain of SEK 7.0 million is recognized in operating profit regarding the previous associate shareholding in MetaboGen. Since BioGaia increased its holding to 62% in the second quarter and thereby obtained a controlling interest in MetaboGen, the company is consolidated as a subsidiary as of 6 April 2018.

There are no contractual obligations for additional purchase considerations, but an agreement was signed to acquire the remaining shares in MetaboGen in two steps provided certain milestones are achieved. During the second quarter the set milestones were achieved, which resulted in new agreements with the University of Gothenburg and Chalmers University of Technology. These agreements will give BioGaia and MetaboGen more extensive and closer collaboration with the universities. At the beginning of July, BioGaia therefore acquired a further 30% of the company for SEK 27.8 million. This has been recognized in equity as a transaction between owners with an effect on Equity attributable to owners of the Parent Company of SEK -14.6 million, as a result of a higher valuation of the acquisition of the further 30% of MetaboGen's shares.

BioGaia has an option to acquire the remaining 8% of the company within a three-year period. The additional purchase consideration can amount to a maximum of SEK 12 million depending on the number of milestones achieved.

MetaboGen was founded in 2011 by Professor Fredrik Bäckhed at the University of Gothenburg and Professor Jens B. Nielsen at Chalmers University of Technology, together with GU Ventures, which commercializes research results and develops companies with ties to the University of Gothenburg. The company is domiciled in Gothenburg, Sweden. Aside from assignments for BioGaia, MetaboGen collaborates with the pharmaceutical company Ferring and holds a number of patents and patent applications in the microbiome area. The company has a laboratory in Gothenburg where development of new probiotic strains takes place.

Research on the microbiome is advancing very rapidly and pharmaceutical companies are making major investments in this area. Through the investment in MetaboGen, BioGaia will be able to maintain its strong position in the field of probiotic research.

Property, plant and equipment	364
Current assets	261
Cash and cash equivalents	5,600
Trade payables and other operating liabilities	-6,426
<b>Net identifiable assets and liabilities</b>	<b>-201</b>
Less non-controlling interests	-17,062
Less fair value of previously held equity interests	-16,436
R&D projects in progress	45,850
Goodwill	5,300
Provision to deferred tax	-5,763
<b>Consideration transferred</b>	<b>11,688</b>

#### REVENUE AND PROFIT ATTRIBUTABLE TO THE ACQUIRED COMPANY

The acquisition was carried out on 6 April 2018 and the acquired company has contributed net sales of SEK 0 million and a net loss of SEK 2.4 million. If the acquisition had taken place on 1 January 2018, management's assessment is that during the period 1 January – 31 December 2018 the acquired company would have contributed SEK 0 million to the Group's net sales and SEK -4.7 million to the Group's net profit.

**R&D PROJECTS IN PROGRESS** Work on the purchase price allocation was completed in the fourth quarter and according to the analysis SEK 45.8 million of the surplus value is attributable to R&D projects and SEK 5.3 million to Goodwill. Deferred tax has been taken into account.

MetaboGen has a number of R&D projects in progress. The company has made the assessment that when these are commercialized they will have a useful life of at least 10 years.

The carrying amount of goodwill is motivated by anticipated synergy effects of merging these operations as well as intangible assets that do not meet the requirements for separate recognition.

**CASH FLOW IMPACT** The effect on the Group's cash flow consists of the paid purchase consideration of SEK 11.7 million and acquired cash and cash equivalents of SEK 5.6 million. No other acquisition-related costs exist. During the third quarter BioGaia acquired a further 30% of the company for SEK 27.8 million, which has a total effect on cash flow of SEK 33.9 million.

#### NOTE 5 AUDITOR'S FEES

	Group		Parent Company	
	2018	2017	2018	2017
<i>Deloitte AB</i>				
Audit services according to engagement letter	544	504	504	504
Audit services in addition to audit	209	203	209	203
Tax advice	29	-	29	-
Other services	-	-	-	-
	Group		Parent Company	
	2018	2017	2018	2017
<i>Cherry, Bekaert &amp; Holland, LLP:</i>				
Audit assignments	-	54	-	-
Other services	212	280	-	-
Tax advice	-	35	-	-

Audit assignments refer to the auditors' work on the statutory audit, other auditing activities and different types of quality assurance services. Other services are such that are not included in the audit assignment, auditing activities or tax advice.

#### NOTE 6 SHARE OF PROFIT OF ASSOCIATES

	Group	
	2018	2017
Share of profit of MetaboGen AB	-500	-820
	-500	-820

For further information see Note 4.

#### NOTE 7 OTHER OPERATING EXPENSES

	Group		Parent Company	
	2018	2017	2018	2017
Exchange rate losses on receivables and operating liabilities, net	4,555	4,659	4,625	4,648
	4,555	4,659	4,625	4,648

The Group has changed an accounting standard and with effect from 2018 recognizes exchange gains/losses on forward exchange contracts in operating profit or loss since the assessment is that they are attributable to operations. See below under Note 29.

At 31 December 2018 the Parent Company and the Group had outstanding forward exchange contracts for EUR 14.1 million (15.3) at an average exchange rate of SEK 10.08 and for USD 9.8 million (9.4) at an average exchange rate of SEK 8.28.

#### NOTE 8 OPERATING EXPENSES

##### OPERATING EXPENSES ALLOCATED BY TYPE OF COST

	Group		Parent Company	
	2018	2017	2018	2017
Cost of sales	185,956	151,655	219,991	177,578
Personnel expenses	137,061	107,540	101,837	82,768
Depreciation/amortization	7,546	6,574	950	515
Other operating expenses	133,948	110,765	147,438	113,308
	464,511	376,533	470,216	374,169

Operating expenses include lease payments of SEK 0.4 million (0.1). The total amount of minimum future lease payments falls due as follows

- Within one year: SEK 0.5 million
- Within two to five years: SEK 1.1 million
- After five years: -

The Group's future payment commitments for rents amount to SEK 25.5 million, of which SEK 21.6 million refers to the Parent Company. The Group's rents fall due for payment in an amount of SEK 7.1 million within one year and SEK 14.2 million within two to five years and SEK 4.2 million after 5 years.

**RESEARCH AND DEVELOPMENT EXPENSES** The expenses capitalized in the balance sheet relate to MetaboGen, see Note 4. No other expenses for development in the Parent Company or subsidiaries during the year meet the requirement for capitalization in the balance sheet.

##### TOTAL RESEARCH AND DEVELOPMENT EXPENSES

	Group		Parent Company	
	2018	2017	2018	2017
Total R&D expenses excl. amortization	98,775	75,325	91,105	73,760
The year's capitalization of development expenses	-	-	-	-
Uncapitalized R&D expenses	98,775	75,325	91,105	73,760
Amortization component of R&D expenses*)	967	375	729	272
R&D expenses with an effect on profit/loss	99,742	75,700	91,834	74,032

\*) This amount refers only to the portion of depreciation on property, plant and equipment attributable to the research and development function in the income statement classified by function.

#### NOTE 9 FINANCIAL INCOME

	Group		Parent Company	
	2018	2017	2018	2017
Interest income	641	112	1,849	1,252
	641	112	1,849	1,252

#### NOTE 10 FINANCIAL EXPENSES

	Group		Parent Company	
	2018	2017	2018	2017
Other interest expenses	405	304	369	3,003
	405	304	369	3,003

#### NOTE 11 TAX ON PROFIT FOR THE YEAR

	Group		Parent Company	
	2018	2017	2018	2017
Current tax	-62,453	-51,253	-53,962	-45,502
Deferred tax	-909	-1,094	-	-
	-63,362	-52,347	-53,962	-45,502

##### DEFERRED TAX IN UNTAXED RESERVES

	Group		Parent Company	
	2018	2017	2018	2017
Deferred tax attributable to untaxed reserves	916	778	-	-
	916	778	-	-

##### CHANGE IN DEFERRED TAX LIABILITY

	Group	
	2018	2017
Opening balance deferred taxes	778	332
Provision for deferred tax	5,901	446
<b>Closing deferred tax</b>	<b>6,679</b>	778

The deferred tax liability in untaxed reserves attributable to the subsidiary BioGaia Production AB. The other deferred tax liability is related to R&D projects in progress in MetaboGen AB. See also Note 4 above.

##### CHANGE IN DEFERRED TAX ASSETS

	Group	
	2018	2017
Opening balance, deferred tax	9,339	10,433
Resolution of deferred tax asset	-909	-1,094
<b>Closing balance, deferred tax</b>	<b>8,430</b>	9,339

The deferred tax asset is related to the subsidiary BioGaia Japan Inc. As a result of the distribution and licensing agreement that was signed in Japan end of 2016 the accumulated losses carried forward have been available for use in the Japanese subsidiary. The exclusivity-revenue related to product rights is recognized during the term of the agreement why a deferred tax asset was recognized. Per 31 December 2018 the deferred tax asset amounts to SEK 8.4 million (9.3).

##### RECONCILIATION OF NOMINAL TAX AND ACTUAL TAX EXPENSES

	Group		Parent Company	
	2018	2017	2018	2017
Reported profit before tax	277,595	232,911	229,561	232,122
Tax rate	22,0%	22,0%	22,0%	22,0%
Anticipated tax expense	-61,071	-51,240	-50,503	-51,067
Tax effect of other non-deductible and non-taxable items	-148	-21	-2,057	5,600
Tax effect of loss carryforwards	-	-1,039	-	-
Tax effect on unrecognized deferred tax on loss carry forwards	-789	-	-	-
Tax effect attributable to previous years	-1,402	-35	-1,402	-35
Other tax adjustment	48	-12	-	-
<b>Actual tax expense</b>	<b>-63,362</b>	-52,347	<b>-53,962</b>	-45,502

The tax rate for the Group amounted to 23% (22) of profit for the year after financial items. The accumulated deficit amounts to SEK 16 million and relates to the subsidiary MetaboGen AB.

#### NOTE 12 INTANGIBLE ASSETS

GROUP	R&D projects in progress			Goodwill	Total intangible assets
	2018	2017	2016		
Opening balance, 1 January 2018	0	0	0	0	0
Acquired intangible assets MetaboGen	45,850	5,300	51,150		
<b>Closing balance, 31 December 2018</b>	<b>45,850</b>	<b>5,300</b>	<b>51,150</b>		
<i>Carrying amounts:</i>					
At 31 December 2017	0	0	0		
<b>At 31 December 2018</b>	<b>45,850</b>	<b>5,300</b>	<b>51,150</b>		

No depreciation of intangible assets is recognized in the income statement, see also Note 4.

## NOTE 13 TANGIBLE FIXED ASSETS

GROUP	Production and laboratory equipment		Work in progress	Office equipment and computers		Total property, plant and equipment
	Land and buildings					
<i>Accumulated cost:</i>						
Opening balance, 1 January 2017	65,912	36,397	10,524	15,630		128,464
Additions	20,928	4,684	8	1,125		26,745
Sales and disposal	-	7,685	-7,685	-		-
Exchange differences	-	-	-	-91		-91
<b>Closing balance, 31 December 2017</b>	<b>86,840</b>	<b>48,766</b>	<b>2,847</b>	<b>16,664</b>		<b>155,118</b>
<i>Accumulated depreciation:</i>						
Opening balance, 1 January 2017	6,182	25,368	-	14,484		46,033
Depreciation	2,042	3,797	-	734		6,573
Exchange differences	-	-	-	47		47
<b>Closing balance, 31 December 2017</b>	<b>8,224</b>	<b>29,165</b>	<b>0</b>	<b>15,265</b>		<b>52,653</b>
<i>Carrying amounts:</i>						
At 1 January 2017	59,731	11,030	10,524	1,146		82,431
At 31 December 2017	78,617	19,602	2,847	1,399		102,465
<b>At 31 December 2018</b>	<b>86,252</b>	<b>17,338</b>	<b>0</b>	<b>2,345</b>		<b>105,935</b>

## PARENT COMPANY

	Production and laboratory equipment	Office equipment and computers	Total property, plant and equipment
<i>Accumulated cost:</i>			
Opening balance, 1 January 2017	3,559	11,756	15,315
Additions	3,805	92	3,897
<b>Closing balance, 31 December 2017</b>	<b>7,364</b>	<b>11,848</b>	<b>19,212</b>
<i>Accumulated depreciation:</i>			
Opening balance, 1 January 2017	3,315	11,306	14,621
Depreciation	325	190	515
<b>Closing balance, 31 December 2017</b>	<b>3,640</b>	<b>11,496</b>	<b>15,136</b>
<i>Carrying amounts:</i>			
At 1 January 2017	244	450	694
At 31 December 2017	3,724	352	4,076
<b>At 31 December 2018</b>	<b>4,157</b>	<b>1,061</b>	<b>5,218</b>

	Group		Parent Company	
	2018	2017	2018	2017
Cost of sales	5,601	4,917	-	-
Selling expenses	506	972	179	198
Administrative expenses	473	420	42	45
Research and development expenses	966	376	729	272
	<b>7,546</b>	6,685	<b>950</b>	515

### DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT IS RECOGNIZED ON THE FOLLOWING LINES IN THE INCOME STATEMENT

## NOTE 14 FINANCIAL ASSETS

### PARENT COMPANY

Participations in group companies	2018	2017
At beginning of year	54,570	51,133
Group contribution paid to CapAble AB	563	1,428
Group contribution paid to BioGaia Pharma AB	4,707	1,388
Group contribution paid to TriPac AB	3	1
Impairment loss on shares in CapAble AB	-7,464	-1,428
Acquisition of participations in MetaboGen AB	51,523	-
Acquisition of participations in BioGaia Pharma AB	-	48
Shareholder contribution to BioGaia Pharma AB	6,000	2,000
<b>Carrying amount at end of year</b>	<b>109,902</b>	54,570

### SPECIFICATION OF THE PARENT COMPANY'S EQUITY HOLDINGS IN GROUP COMPANIES

Subsidiary/corp. reg.no./Domicile	No. of shares	Hold-ing. %	Book value
BioGaia Biologics Inc. /-/Raleigh, NC, USA	100,000	100	0
TriPac AB /556153-2200/Stockholm	10,000	100	3,595
CapAble AB /556768-3601/Stockholm	9,010	90.1	0
BioGaia Pharma AB /559114-8191/Stockholm	48,000	96.0	14,143
BioGaia Japan Inc. /-/Hiroshima, Japan	18,000	100	0
MetaboGen AB /556872-7142/Stockholm	819,091	92.4	51,523
BioGaia Production AB /556591-9767/Eslöv	10,000	100	40,641
			<b>109,902</b>

The assets and liabilities of the American subsidiary Biogaia Biologics Inc. have been translated at the closing day rate of exchange, SEK 8.97 (8.23). All items in the income statement have been translated at the average exchange rate during the year, SEK 8.69 (8.54). The assets and liabilities of the Japanese subsidiary BioGaia Japan Inc. have been translated at an exchange rate of SEK 0.081 (0.073). All items in the income statement have been translated at an exchange rate of SEK 0.079 (0.076). The resulting translation differences have been recognized in consolidated comprehensive income.

CapAble AB was formed in 2008. BioGaia owns 90.1% of the company. CapAble's President, Staffan Pålsson, owns 9.9% of the company. The non-controlling interests' share in equity of CapAble amounts to SEK -18 thousand.

BioGaia Production AB was formed in 2002 and is 100% owned by BioGaia since 1 July 2013.

BioGaia Pharma AB was formed in 2017. BioGaia owns 96% of the company. BioGaia Pharma's President, Nigel Titford owns 4% of the company. The non-controlling interest share in equity amounts to SEK 2 thousand.

MetaboGen AB is consolidated as a subsidiary from April 1st 2018. BioGaia owns 92.4% and the founders the remaining 7.6%. The non-controlling interests share in equity amounts to SEK 3,155 thousand. After the financial year BioGaia has increased the investment in MetaboGen through a capital contribution amounting to SEK 6 million.

Of total purchases made by the Parent Company, 25.6% (23.4) was attributable to group companies. Of total sales made by the Parent Company, 3.0% (2.8) was attributable to group companies.

## INVESTMENTS IN ASSOCIATES

	Group		Parent Company	
	2018	2017	2018	2017
At beginning of year	9 932	10 751	12 001	12 000
Reclassification to subsidiary <sup>1)</sup>	-9 431	-	-12 000	1
Share of profit for the year	-500	-820	-	-
<b>Carrying amount at end of year</b>	<b>-</b>	<b>9 932</b>	<b>-</b>	<b>12 001</b>

<sup>1)</sup> BioGaia gained controlling interest of the previous associated company MetaboGen AB through the acquisition of additional 26% on 6 April 2018.

## NOTE 15 NON-CURRENT RECEIVABLES FROM SUBSIDIARIES

### NON-CURRENT RECEIVABLES FROM SUBSIDIARIES

	Parent Company	
	2018	2017
At beginning of year	55,835	55,835
Repayment of loan from BioGaia Japan Inc.	-	-23,310
Exchange difference related to loan to BioGaia Japan Inc.	5,054	-2,871
Provision for net receivable	-5,054	-
Reversal of earlier impairment <sup>1)</sup>	-	26,181
Repayment of loan from BioGaia Production AB	-10,000	-
	<b>45,835</b>	55,835

<sup>1)</sup> The company previously made a provision for the net receivable from the subsidiary in Japan. Since the subsidiary has repaid part of the loan, reversal of the receivable including exchange rate effect took place in 2017.

### NON-CURRENT RECEIVABLES FROM GROUP COMPANIES AT 31 DECEMBER 2018

	Parent Company	
	2018	2017
BioGaia Production AB	45,835	55,835
<b>Closing balance at end of year</b>	<b>45,835</b>	55,835

## NOTE 16 INVENTORIES

	Group		Parent Company	
	2018	2017	2018	2017
Raw materials and consumables	11,265	8,549	-	-
Finished goods and goods for resale	32,948	24,063	31,397	21,252
	<b>44,213</b>	32,612	<b>31,397</b>	21,252

The Group's provisions for obsolescence amounts to SEK 8.0 million (6.4) at 31 December 2018. Expenses related to impairment losses on inventory and scrapping amount to SEK 8.5 million (7.2).

**NOTE 17 TRADE RECEIVABLES**

Provisions for bad debt losses amounted to SEK 1.4 million (1.7) at 31 December 2018.

The provision partly relates to impairment of identified doubtful receivables SEK 0.9 (1.7) million and partly to a provision for expected losses in accordance with IFRS 9 SEK 0.5 (0) million.

At 31 December 2018, trade receivables of SEK 23.0 million (17.0) were overdue without any assessed grounds for impairment. Of the overdue receivables, SEK 22.4 million have been recovered as of the closing date.

**AGE ANALYSIS**

	Group		Parent Company	
	2018	2017	2018	2017
Receivables not overdue	100,458	63,128	80,330	51,491
Less than 3 months	23,274	15,777	23,274	15,371
3-6 months	170	224	170	224
More than 6 months	124	972	53	972
Expected loss provision IFRS 9	-497	-	-	-
	123,529	80,101	103,827	68,058

**THE CARRYING AMOUNTS, BY CURRENCY, ARE AS FOLLOWS**

	Group		Parent Company	
	2018	2017	2018	2017
SEK	12,643	7,614	12,493	7,614
EUR	50,226	37,190	50,226	37,190
USD	39,109	23,398	39,038	22,865
JPY	19,978	11,510	-	-
DKK	2,070	-	2,070	-
CHF	-	389	-	389
Expected loss provision IFRS 9	-497	-	-	-
	123,529	80,101	103,827	68,058

**NOTE 18 RELATED PARTY TRANSACTIONS**

**GROUP** Annwall & Rothschild Investment AB holds 740,668 class A shares and 359,332 class B shares, corresponding to 6.3% of the share capital and 32.4% of the votes. Annwall & Rothschild Investment AB is owned by the founders Peter Rothschild and Jan Annwall. Peter Rothschild is chairman of the board in BioGaia AB. Transactions that took place during 2018 was a dividend of SEK 9.00 per share and remuneration and director's fees - for further information see Note 3.

**PARENT COMPANY** The Parent Company owns 100% of BioGaia Production AB, BioGaia Biologics Inc., USA, BioGaia Japan Inc. and Tripac AB. The Parent Company owns 90.1% of the shares in CapAble AB. The Parent Company owns 96% of the shares in BioGaia Pharma AB. The Parent Company owns 92.4% of the shares in MetaboGen AB.

**THE FOLLOWING TRANSACTIONS HAVE TAKEN PLACE WITH BIOGAIA PRODUCTION AB (INCLUDING BIOGAIA PRODUCTION'S WHOLLY OWNED SUBSIDIARIES)**

	Parent Company	
	2018	2017
Interest income	533	570
Purchase of services	-1,892	-751
Purchase of goods	-108,343	-81,695
Sales of services	244	198

Goods are purchased on a cost plus basis.

**THE FOLLOWING TRANSACTIONS HAVE TAKEN PLACE WITH BIOGAIA JAPAN INC.:**

	Parent Company	
	2017	2016
Interest income	675	569
Repayment of loans from BioGaia Japan	-	23,310
Purchase of services	-1,034	-753
Sale of goods <sup>1)</sup>	20,862	10,806

**THE FOLLOWING TRANSACTIONS HAVE TAKEN PLACE WITH BIOGAIA BIOLOGICS INC.**

	Parent Company	
	2018	2017
Purchase of services	-9,971	-5,117

**THE FOLLOWING TRANSACTIONS HAVE TAKEN PLACE WITH CAPABLE AB**

	Parent Company	
	2017	2016
Sale of Services	78	78
Purchase of services	-386	-
Group contribution paid	-564	-1,428

**THE FOLLOWING TRANSACTIONS HAVE TAKEN PLACE WITH BIOGAIA PHARMA AB**

	Parent Company	
	2018	2017
Sale of Services	60	20
Group contribution paid	-4,707	-1,388
Shareholder contribution paid	-6,000	-2,000

**THE FOLLOWING TRANSACTIONS HAVE TAKEN PLACE WITH TRIPAC AB**

	Parent Company	
	2018	2017
Group contribution paid	-3	-1

**THE CLOSING BALANCE AT THE END OF THE PERIOD WAS AS FOLLOWS**

	Parent Company	
	31 Dec 2018	31 Dec 2017
<b>Non-current receivables from subsidiaries</b>		
Non-current receivables, BioGaia Production AB	45,835	55,835
	45,835	55,835
<b>Current liabilities from subsidiaries</b>		
Current liabilities, BioGaia Biologics Inc	-6,859	-2,659
Current liabilities, CapAble AB	-2,676	-3,628
Current liabilities, Tripac AB	-4,675	-4,672
Current liabilities, BioGaia Production AB	-9,070	-6,080
Current liabilities, BioGaia Pharma AB	-6,076	-1,369
	-29,356	-18,408
<b>Current receivables from subsidiaries</b>		
Current receivables, BioGaia Japan Inc.	17,116	7,439
	17,116	7,439

See also Note 3 for other related party transactions.

**NOTE 19 OTHER RECEIVABLES**

	Group		Parent Company	
	2018	2017	2018	2017
VAT refund	7,647	7,287	7,647	7,141
Current tax asset	357	-	-	-
Other receivables	4,806	1,132	2,752	1,017
	12,810	8,419	10,399	8,158

**NOTE 20 DEFERRED EXPENSES AND ACCRUED INCOME**

	Group		Parent Company	
	2018	2017	2018	2017
Accrued income	18,480	16,731	17,718	16,731
Prepaid rents	1,477	1,035	1,365	909
Other deferred expenses	4,112	4,583	1,397	127
	24,069	22,349	20,480	17,767

**NOTE 21 FINANCIAL ASSETS AND LIABILITIES**

	IFRS 9 recognized at 31 Dec 2018		IAS 39 recognized at 31 Dec 2017	
	Fair value through profit and loss	Accrued cost	Fair value through profit and loss	Loan and trade receivables
<b>Financial assets</b>				
Trade receivables		123,529		80,101
Short-term investments	4,832		5,000	
Cash and cash equivalents		284,962		305,856
			IFRS 9 recognized at 31 Dec 2018	IAS 39 recognized at 31 Dec 2017
<b>Financial liabilities</b>			Fair value through profit and loss	Accrued cost
Trade payables		24,852		20,893
Currency hedge	7,014			916

**FINANCIAL INSTRUMENTS MEASURED AT FAIR VALUE** The company has taken forward currency hedges in EUR and USD. The forward currency hedges have been recognized at their fair value at 31 December 2018. This value is included in other liabilities - see Note 24.

In BioGaia's measurement of fair value, the fair values of financial assets and financial liabilities are determined according to level 2 in the value hierarchy except for cash and cash equivalents and short-term investments where value is determined according to level 1 in the value hierarchy.

Net losses from currency hedges amount to SEK 6,097 thousand for 2018 and SEK 842 thousand for 2017 and is recognized in operating profit. See also Note 29 for change of accounting principle. The following text summarizes the methods and assumptions that have been used to determine fair value on the Group's other financial instruments

**TRADE RECEIVABLES, TRADE PAYABLES AND PREPAYMENT FROM CUSTOMERS** Trade receivables, trade payables and prepayment from customers normally have a term that is less than three months why the book value is a good approximation of the fair value.

## NOTE 22 EQUITY

The objective of the Group's capital management is to safeguard the Group's ability to continue as a going concern and to provide a good return to the shareholders.

The share capital in BioGaia AB consists of 740,668 class A shares, carrying 10 votes each, and 16,595,794 class B shares, carrying one vote each. The class A and B shares grant equal entitlement to the company's assets and profits. Both the A shares and B shares have a quota value of SEK 1 each. All shares are fully paid-up and no shares are reserved for transfer. No shares are held in treasury by the company itself or by its subsidiaries.

Other contributed capital consists of payments made by the shareholders in excess of the quota value.

The foreign currency translation reserve arises in translation of the net assets of foreign operations according to the acquisition method.

Retained earnings consist of other equity. The Parent Company's dividend for 2017, as resolved on by the 2018 AGM, was SEK 156 million, equal to SEK 9.00 per share. For 2018 the Board of Directors proposes that the company pay a dividend according to policy of SEK 4.05 per share and an extraordinary dividend of SEK 5.95 per share, amounting to a total dividend of SEK 10.00 per share. This is equal to a total dividend of SEK 173.4 million. The board further proposes to the next Annual General Meeting, in accordance with the Swedish Companies Act, Chapter 17 section 5 on donations for charitable purposes, a provision to the Foundation to prevent antibiotic resistance of SEK 3.2 million. Support for recognition of the provision in equity is found in the Conceptual Framework for Financial Reporting in the section Financial performance reflected by accrual accounting (1.17ff).

Non-controlling interests account for 9.9% of equity in the subsidiary CapAble, 4% of the subsidiary BioGaia Pharma AB and 7.6% of the subsidiary MetaboGen's equity. Equity in the BioGaia Group consists of the sum of equity attributable to owners of the Parent Company and equity attributable to non-controlling interests. At 31 December 2018, total consolidated equity amounted to SEK 508.1 million (463.9) and equity attributable to owners of the Parent Company amounted to SEK 505.0 million (463.9).

**BIOGAIA'S DIVIDEND POLICY** is to pay a shareholder dividend equal to 40% of profit after tax.

### KEY RATIOS, EQUITY

	2018	2017
Number of shares at 31 Dec., thousands	17,336	17,336
Average number of shares, thousands	17,336	17,336
Earnings per share, SEK <sup>1)</sup>	12.40	10.42
Equity per share, SEK	29.13	26.76
Return on equity, %	44	41
Share price on closing day, SEK	317.50	326.00
Dividend per share, SEK <sup>2)</sup>	10.00	9.00

<sup>1)</sup> Key figures defined according to IFRS.

<sup>2)</sup> Dividend proposed but not yet approved. The Board and President propose that the company pay a dividend according to policy of SEK 4.05 per share and an extraordinary dividend of SEK 5.95 per share, equal to a total dividend of SEK 10.00 per share.

## NOTE 23 PROPOSED APPROPRIATION OF PROFITS

The following funds in the Parent Company are at the disposal of the Annual General Meeting:

Retained earnings	255,914
Profit for the year	175,599
Together amounting to	<b>431,513</b>

The Board of Directors proposes that the profits be appropriated as follows

To be paid as a dividend to the shareholders	173,365
Provision to the Foundation to prevent antibiotic resistance	3,200
To be carried forward to new account	254,948
Total	<b>431,513</b>

## NOTE 24 OTHER LIABILITIES

	Group		Parent Company	
	2018	2017	2018	2017
Employee withholding tax	2,178	1,788	1,833	1,511
Current tax liabilities	16,013	6,307	9,753	2,613
Other current liabilities	10,772	4,923	7,014	916
	<b>28,963</b>	13,018	<b>18,600</b>	5,040

Other current liabilities above include currency hedges at fair value of SEK 7.0 million for 2018 and SEK 0.9 million for 2017. All currency hedges are classified as level 2 in the fair value hierarchy.

## NOTE 25 ACCRUED EXPENSES AND DEFERRED INCOME

	Group		Parent Company	
	2018	2017	2018	2017
Accrued holiday pay	9,824	7,343	7,908	5,711
Accrued social security expenses	2,043	1,718	1,474	1,310
Other accrued expenses and deferred income	45,482	31,826	37,578	31,681
	<b>57,349</b>	40,887	<b>46,960</b>	38,702

## NOTE 26 PLEDGED ASSETS AND CONTINGENT LIABILITIES

	Group		Parent Company	
	2018	2017	2018	2017
Pledged assets	2,000	2,000	2,000	2,000
Floating charges	2,000	2,000	2,000	2,000
Contingent liabilities	None	None	None	None

The floating charges relate to credit for credit cards.

## NOTE 27 POLICY FOR FINANCIAL RISK MANAGEMENT

The overall objective of the Group's finance function is to secure cost-effective financing for the Group's operations and group companies and to provide secure cash management with a market-based return on investment. The overall objective of financial risk management is to minimize the risk for negative effects on the Group's earnings. Consequently, the Group's financial investments must have a low risk profile. Below is a description of the Group's assessed risk exposure and the related risk management.

**CURRENCY RISK** BioGaia conducts operations in various geographical markets and has revenue and expenses in different currencies. This affects both transaction exposure (cash flow) and translation exposure (the balance sheet).

### Transaction exposure

The breakdown of net sales in 2018 was approximately:	The breakdown of expenses in 2018 was approximately:
EUR 42% (44%)	SEK 57% (63%)
USD 30% (26%)	EUR 23% (22%)
SEK 11% (13%)	JPY 10% (7%)
Other currencies 17% (17%)	USD 9% (7%)
	Other currencies 1% (1%)

In 2018 the company had a cash flow surplus of approximately EUR 18.3 million (22.1), a cash flow surplus of JPY 80.7 million (313.1) and a cash flow surplus of USD 19.5 million (18.2).

The company's Board of Directors has issued a policy to hedge approximately 50-60% of projected cash flow 12 months forward and approximately 10-40% of projected cash flow 13-24 months forward in order to spread the risk for exchange rate fluctuations. At 31 December 2018 the company had outstanding forward exchange contracts for EUR 14.1 million at an average exchange rate of SEK 10.08 and USD 9.8 million USD at an average exchange rate of SEK 8.28. Forward exchange contracts amounting to EUR 10.0 million and USD 6.15 million will mature for payment in 2019 and forward exchange contracts amounting to EUR 4.1 million and USD 3.2 million will mature for payment in 2020. The actual exchange gain/loss depends on the exchange rate on the maturity date of the contracts. For more information, see Notes 12, 22 and 25.

The average exchange rate for EUR/SEK in 2018 was SEK 10.26 (9.63). If the EUR/SEK rate had been SEK 0.10 higher/lower, BioGaia's net sales would have been approximately SEK 3.0 million higher/lower and operating profit would have been approximately SEK 2.0 million higher/lower.

The average exchange rate for USD/SEK in 2018 was SEK 8.69 (8.54). If the USD/SEK rate had been SEK 0.10 higher/lower, BioGaia's sales would have been approximately SEK 2.6 million higher/lower and operating profit would have been approximately SEK 2.1 million higher/lower. A stronger SEK rate, primarily against the EUR and USD, decreases BioGaia's sales and profit, but through forward exchange transactions and by working to reallocate a portion of expenses to EUR, the company is working to minimize the impact on profit. BioGaia is also trying to reallocate a portion of revenue from EUR to other currencies.

**TRANSLATION EXPOSURE** Translation exposure is the risk that the value of the Group's net investments in foreign currencies will be negatively affected by changes in foreign exchange rates.

The Group has two foreign subsidiaries, one in the USA and one in Japan. The assets and liabilities of the American subsidiary, BioGaia Biologics Inc, have been translated at the closing day rate of SEK 8.97 (8.23). Items in the income statement have been translated at an average rate of SEK 8.69 (8.54). The assets and liabilities of the Japanese subsidiary, BioGaia Japan Inc, have been translated at a rate of SEK 0.081 (0.073). The translation difference amounted to SEK 0.5 million (0.2) for the American subsidiary and SEK 1.0 million (1.5) for the Japanese subsidiary.

**INTEREST RATE AND LIQUIDITY RISK** The Group has no external loans. Excess liquidity is invested mainly in bank accounts. For cash and cash equivalents, the company has a liquidity policy in which the basic principles are that investment risks should always be minimized and investments should be made primarily in Swedish kronor. To minimize currency risk, other currencies may also be considered. The company's excess liquidity may be invested only in bank accounts, commercial paper or other fixed income securities with very limited risk. This means that no investments may be made in shares, equity funds, options, etc. Counterpart risk in financial items (cash and cash equivalents) is assessed to be low since cash is held in Nordic banks.

**CREDIT AND COUNTERPARTY RISK** Credit risk is the risk that the counterpart in a transaction causes a loss for the group by not fulfilling its contractual obligations. BioGaia's credit risks are tied to trade receivables and for the parent company also loan to subsidiaries. When signing agreements with new customers, BioGaia always carries out an assessment of the customer's financial position. The company has routines for collection of past due trade receivables and additional evaluation of the customers' financial position is carried out when needed in order to minimize risks.

The simplified model is used to determine the expected loss on the group's trade receivables. When calculating the expected loss the trade receivables have been grouped based on age-structure. The expected loss for trade receivables is calculated with the help of a matrix of historical data, current conditions and forecasts of future economic conditions.

	Group	
	2018	2017
Trade receivables gross	124,922	81,835
Allowance trade receivables	-1,393	-1,734
<b>Trade receivables net</b>	<b>123,529</b>	80,101

	Group	
	2018	2017
Trade receivables gross	124,922	81,509
Allowance opening balance	-1,734	-1,899
Increase from new receivables	-497	-
Decrease from paid receivables	314	272
Move to impaired	524	219
<b>Trade receivables closing balance</b>	<b>123,529</b>	80,101

Trade receivables are spread over a large number of customers and no customer represents a material part of total receivables. In addition, trade receivables are not concentrated to a specific geographical area. As a consequence, the group deems the concentration risks to be limited.

The group's maximal exposure for credit risk consist of the book value of all financial assets and are outlined in the table below.

	Group	
	2018	2017
Trade receivables	123,529	80,101
Other non-current assets	12,810	8,419
Short term investments	4,832	5,000
Cash and cash equivalents	284,962	305,865
<b>Maximal exposure for credit risk</b>	<b>426,133</b>	399,385

**CASH FLOW RISK** Cash flow for the period amounted to SEK -22.9 million (63.5). Cash flow included, dividends of SEK 156.0 million (130.0) and tax payments of SEK 52.4 million (49.6).

Age analysis of the Group's liabilities:

	Due in less than:					Total
	Interest rate	1 month	1-3 months	3-12 months	1-5 years	
<b>31 December 2017</b>						
Non-current liabilities	-	-	-	-	778	<b>778</b>
Current liabilities	-	32,085	18,451	39,709	21,201	<b>111,446</b>
	-	32,085	18,451	39,709	21,979	<b>112,224</b>

### 31 December 2018

Non-current liabilities	-	-	-	6,679	<b>6,679</b>
Current liabilities	35,483	41,976	48,742	18,793	<b>145,173</b>
	32,085	41,976	48,742	256,652	<b>151,852</b>

Because cash and cash equivalents at 31 December 2018 amounted to SEK 285.0 million (305.9), no infusion of capital is necessary during the coming 12-month period.

**PRICE RISK** BioGaia buys most of its goods on the international market and has several alternative suppliers, which reduces the company's price risk. BioGaia's price to distributors is largely the same for all, but can vary with respect to the order volume. Certain markets are subject to aggressive price competition towards consumers. However, BioGaia's strategy is not to compete in terms of price but to instead convince doctors of the effectiveness and safety of the products by showing the results of clinical studies.

## NOTE 28 CRITICAL ACCOUNTING ESTIMATES AND ASSUMPTIONS

Certain sources of uncertainty in accounting judgements and assumptions are described below.

**ACQUISITION OF METABOGEN** In the purchase price allocation, that was completed during the fourth quarter, related to MetaboGen AB, SEK 45.8 million of the surplus value was allocated to R&D projects in progress and SEK 5.3 million to goodwill. Group management have used valuation-models (discounted cash flow valuation) as the basis for the purchase price allocation. The valuation is based on estimates of future demand, use and price for the product or the technology and the valuation is associated with uncertainty. The need for impairment will be tested annually as part of the annual closing or as soon triggers indicate a need for impairment.

## NOTE 29 CHANGE OF ACCOUNTING STANDARD

### EFFECTS ON ASSETS, 1 JANUARY 2018

Category	IAS 39 Recognized at 31 Dec 2017		Remeasurement due to IFRS 9	IFRS 9 Recognized at 31 Dec 2018	
	Fair value through profit or loss	Loans and trade receivables		Business model Other	Business model Hold to collect
Trade receivables		80,101	-313		79,788
Short-term investments	5,000			500	
Cash and cash equivalents	305,856			284,962	305,856

### EFFECTS ON THE INCOME STATEMENT DUE TO CHANGE OF ACCOUNTING STANDARD

	Jan-Dec 2017 according to IAS 39		Reclassification	Jan-Dec 2017 according to new accounting standard	
Other operating expenses	-3,817		-842		-4,659
Net financial items	-922		842		-80

	Jan-Dec 2018 according to IAS 39		Reclassification	Jan-Dec 2018 according to new accounting standard	
Other operating income/expenses	1,542		-6,097		-4,555
Net financial items	-5,861		6,097		236

**The Board of Directors and the CEO hereby give their assurance that the consolidated financial statements and annual report have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and generally accepted auditing practices, and give a true and fair view of the financial position and results of operations of the Group and the Parent Company. The administration report for the Group and the Parent Company gives a true and fair view of the business activities, financial position and results of operations of the Group and the Parent Company, and describes the significant risks and uncertainties to which the Parent Company and the Group companies are exposed.**

Stockholm, 5 March 2019

Peter Rothschild  
Chairman

Isabelle Ducellier  
CEO

David Dangoor  
Vice Chairman

Ewa Björling  
Member of the Board

Peter Elving  
Member of the Board

Inger Holmström  
Member of the Board

Anthon Jahreskog  
Member of the Board

Brit Stakston  
Member of the Board

Stockholm, 8 March 2019  
Deloitte AB

Birgitta Lööf  
Authorized Public Accountant

# Auditor's report

To the general meeting of the shareholders of BioGaia AB (publ)  
corporate identity number 556380-8723

## REPORT ON THE ANNUAL ACCOUNTS AND CONSOLIDATED ACCOUNTS

### OPINIONS

We have audited the annual accounts and consolidated accounts of Biogaia AB (publ) for the financial year 2018-01-01-2018-12-31. The annual accounts and consolidated accounts of the company are included on pages 41-70 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 the parent company as of 31 December 2018 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 31 December 2018 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. 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 the annual accounts and consolidated accounts are consistent with the content of the additional report that has been submitted to the parent company's Board of Directors in accordance with the Audit Regulation (537/2014) 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) 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 sales as of December 31, 2018 amounts to SEK 742 million and mainly consist of two revenue streams, which are described in the company's accounting policies on page 54. The company's revenue is a material item consisting of a large number of transactions that in part relate to some complex, customer specific agreements, requiring managements' critical estimates and assumptions in determining the timing of revenue recognition.

Our audit included but was not limited to the following audit procedures:

- Evaluation of the company's accounting principles for revenue
- Created an understanding of the company's routines and internal controls associated with revenue recognition
- Examination of a selection of transactions to ensure that they have been reported in the correct period
- Examination of margin analyses and comparison to prior year
- Examination that the required disclosures are provided in the annual accounts

### ACQUISITION OF ADDITIONAL SHARES IN METABOGEN

On April 6, 2018, BioGaia AB acquired 26% of MetaboGen AB. BioGaia AB already held 36% of the company and, with the acquisition, control in MetaboGen was obtained and the company was consolidated as a subsidiary. The acquisition in April 2018 was a step acquisition, which resulted in a remeasurement gain of SEK 7 million from previous reporting by MetaboGen as an associated company. In July 2018, additional shares were acquired in MetaboGen and at closing date, ownership amounted to 92%. BioGaia also has an option to acquire 8% of the company within a three-year period. The company describes the acquisition in note 4 in the annual report. The acquisition is considered to be a key audit matter since the accounting is complex. Our audit included but was not limited to the following audit procedures:

- Evaluation of the two share purchase agreements and evaluation of their reporting in the group and the parent company based on the rules in IFRS 3 and RFR2
- Review of the calculation of consolidated income and equity effect resulting from transactions between majority and minority and examination of the purchase price analysis
- Examination of the management's valuation of the acquired assets with assistance from a valuation specialist
- Examination of the management's assessment of the value of the reported option
- Examination that the required disclosures are provided in the annual accounts

### 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 1-40 and 73-79. The Board of Directors and the Managing Director 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 MANAGING DIRECTOR

The Board of Directors and the Managing Director 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 Managing Director 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 error.

In preparing the annual accounts and consolidated accounts, the Board of Directors and the Managing Director 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 Managing Director intends to liquidate the company, to cease operations, or has no realistic alternative but to do so.

### 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 error, 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 error and

# Corporate governance report BioGaia AB 2018

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 scepticism 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 error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of 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 policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors and the Managing Director.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director'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 Managing Director of Biogaia AB (publ) for the financial year 2018-01-01-2018-12-31 and the proposed appropriations of the company's profit or loss.

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

### BASIS FOR OPINIONS

Vi har utfört revisionen enligt god revisionsd i Sverige. Vårt ansvar enligt 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 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.

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 MANAGING DIRECTOR

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 Managing Director 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 Managing Director 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 scepticism 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 the Board of Directors' reasoned statement and a selection of supporting evidence in order to be able to assess whether the proposal is in accordance with the Companies Act.

Deloitte AB, was appointed auditor of Biogaia AB by the general meeting of the shareholders on the 2018-04-25 and has been the company's auditor since 2015-05-22.

### Stockholm March 8, 2019

Deloitte AB

Birgitta Lööf

Authorized public accountant

### COMPLIANCE WITH THE SWEDISH CODE OF CORPORATE GOVERNANCE

The aim of the Code is to improve confidence in Swedish listed companies by promoting positive development of the companies' corporate governance. The Code is based on the "comply or explain" principle, which means that a company may deviate from the Code but that any such deviations must be explained.

BioGaia has not deviated from any of the rules set out in the Code.

**CORPORATE GOVERNANCE IN BIOGAI** BioGaia is a Swedish public limited company whose class B shares are listed on the Mid Cap list of the Nasdaq OMX Nordic Exchange Stockholm. The company's corporate governance is exercised through the General Meeting of Shareholders, the Board of Directors, the CEO and the Executive Management in accordance with the Swedish Companies Act, the Articles of Association and the Swedish Code of Corporate Governance.

The share capital consists of 740,668 class A shares carrying 10 votes each and 16,595,794 class B shares carrying one vote each.

**ARTICLES OF ASSOCIATION** According to BioGaia's Articles of Association, the company, directly or through subsidiaries or other forms of co-ownership or partnership, shall engage in the development, production, marketing and sale of health-enhancing products in the form of pharmaceuticals, natural health products, dietary supplements, additives for food products and animal feed, suitable delivery systems for these products and other activities compatible therewith. The company is domiciled in Stockholm, Sweden. The Articles of Association can be viewed on BioGaia's website under the heading "Investors/Corporate Governance".

**GENERAL MEETING OF SHAREHOLDERS** The General Meeting of Shareholders is the company's highest decision-making body. The Annual General Meeting (AGM) elects the members of the Board of Directors. In addition, the responsibilities of the AGM include adoption of the company's income statements and balance sheets, approval of the appropriation of disposable profits and discharge from liability for the members of the Board and the CEO. The AGM also elects the company's auditors.

One shareholder, Anwall & Rothschild Investment AB, holds 6.3% of the share capital and 32.4% of the votes in the company. Other individual shareholders hold less than 10% of the share capital and votes each.

**2018 AGM** BioGaia's AGM was held on 25 April 2018 and was attended by shareholders representing 59.3% of the total number of votes in the company. The AGM was also attended by the Managing Director, the Board members elected by the previous AGM except for Jan Anwall, Margareta Gadnell and Stefan Elving, the Board members elected by the year's AGM except for Peter Elving as well as the company's elected auditor.

The AGM resolved on the following proposals, among others:

- Adoption of the annual report
- Discharge from liability for the Board of Directors and the Managing Director
- A dividend of SEK 9.00 per share as well as a provision in a maximum amount of SEK 2.7 million to The Foundation to prevent antibiotic resistance established by BioGaia in 2017. The purpose of the Foundation is through support to research, education and information activities to promote the use of products and methods that prevent and thereby reduce the use of antibiotics and the risk of antibiotic resistance.
- Re-election of Board members Ewa Björling, David Dangoor, Inger Holmström, Anthon Jahreskog and Brit Stakston
- Election of Peter Rothschild, Peter Elving and Isabelle Ducellier as Board members
- Election of Peter Rothschild as Board Chairman and David Dangoor as Vice Chairman
- Re-election of the registered auditing firm of Deloitte AB
- Board fees of SEK 600,000 to the Board Chairman, SEK 400,000 to the Vice Chairman and SEK 200,000 to each of the other Board members
- That an additional fee of a maximum of SEK 155,000 per month shall be paid to the Board Chairman for significant working duties in addition to the board assignment. Such additional remuneration to be paid in accordance with a special agreement and in accordance with the Board's detailed decision
- Payment of auditor's fees according to approved account
- Principles for remuneration and other terms of employment for senior executives in accordance with the Board's proposal
- Appointment of the Nominating Committee in accordance with the Nominating Committee's proposal

**2019 AGM** The 2019 AGM will be held at 16:00 CET on 8 May, at Kapitel 8, Klara Strand, Klarabergsviadukten 90, in Stockholm.

**NOTICE OF THE AGM** Notice of the AGM is given through an announcement in the Official Gazette (Post- och Inrikes Tidningar) and on the company's website. An announcement that notice has been given is published in Svenska Dagbladet.

**NOMINATING COMMITTEE** The task of the Nominating Committee is to prepare recommendations regarding election and remuneration for decision by the AGM.

The 2018 AGM resolved that the Nominating Committee would be appointed as follows:

The Board Chairman shall convene the four largest shareholders in the company in terms of voting power, each of which has the right to appoint a member to the Nominating Committee together with the Board Chairman. In determining the composition of the Nominating Committee, the largest shareholders in terms of voting power shall be based on the ownership situation at 30 June 2018. The Nominating Committee shall be chaired by the member representing the largest shareholder on that date. If any of the four largest shareholders should waive its right to appoint a member to the Nominating Committee, the next largest shareholder in order of voting power shall be given the opportunity to appoint a member. The names of the four shareholder representatives shall be made public as soon as they have been appointed, but no later than six months before the 2019 AGM. The term of office shall extend until a new Nominating Committee has been appointed.

In the event that the shareholder represented by a member is no longer one of the four largest shareholders in terms of voting power, and if the Nominating Committee deems it appropriate, the member shall leave and a representative for the next largest shareholder in order of voting power be given the opportunity to replace this member. In the event that an appointed member of the Nominating Committee resigns from the Nominating Committee for some other reason, the shareholder who has appointed the member in question has the right to appoint a new member to the Committee. If this shareholder waives its right to appoint a new representative, the Nominating Committee, if it deems so appropriate in respect of the remaining mandate period, shall ask the next largest shareholder in terms of voting power if it wishes to appoint a representative to the Nominating Committee.

The Nominating Committee shall prepare recommendations for the following matters to be put before the 2019 AGM for resolution:

- a) appointment of the Chairman of the AGM
- b) election of the Board of Directors
- c) election of the Board Chairman
- d) fees for members of the Board
- e) election of auditors
- f) fees for the auditors
- g) appointment of the Nominating Committee ahead of the 2020 AGM.

In accordance with the AGM's resolution, the Nominating Committee was appointed and consists of the Chairman of BioGaia AB, Peter Rothschild, together with Per-Erik Andersson, representing Anwall & Rothschild Investment AB, the company's largest shareholder, Magnus Skåninger representing the company's second largest shareholder Swedbank Robur Fonder, Jannis Kitsakis representing the company's third largest shareholder Fjärde AP-Fonden and Sebastian Jahreskog, who through direct and indirect ownership is the company's fourth largest shareholder. All members of the Nominating Committee, except for Peter Rothschild, are independent in relation to the company and its management.

All shareholders have had the opportunity to contact the Nominating Committee with recommendations for Board candidates for further evaluation within the framework of the Committee's work. No suggestions or proposals have been submitted to the Nominating Committee as of today's date.

The Nominating Committee presents a written motivation to the AGM for election of Board members. In its motivation the Nominating Committee takes into account diversity and breadth in the Board and seeks an even gender distribution.

**BOARD OF DIRECTORS** According to BioGaia's Articles of Association, the Board shall consist of at least five and at most eight members with no more than three deputies. The Board is elected yearly by the AGM to serve for the period until the end of the following AGM. Until 5 November 2018 the Board consisted of eight members elected by the AGM, with no deputies. On 5 November, the Board member elected by the 2018 AGM, Isabelle Ducellier, took up the position of CEO of the company. Since then the Board has consisted of seven members.

Board Chairman Peter Rothschild is a major shareholder in the company and was previously Managing Director (1990-2016) and Group President (2016-2018). The six remaining members are independent in relation to both the company and its management. A presentation of the Board is provided at page 37.

BioGaia has appointed an external lawyer to serve as Secretary at Board meetings. The CEO is not a member of the Board but is co-opted to attend all Board meetings. Other executives in the company take part in Board meetings in order to present reports. The Board has adopted rules of procedure that include instructions for the separation of duties between the Board and CEO and the structure of Board activities during the year. In addition to the responsibilities that are generally applicable pursuant to the Swedish Companies Act, the Articles of Association and the Swedish Code of Corporate Governance, the following are regulated by the Board's rules of procedure:

- At least 5 Board meetings during the year, in addition to the statutory meeting.
- Establishment of the overall objectives for the company's operations and decision on the company's strategy.
- Approval of budgets and similar long-term plans, including the investment budget.
- Matters related to investments and similar in amounts of more than SEK 2 million.
- Decision on the purchase and sale of real estate, shares or the acquisition of another company's operations in amounts of more than SEK 2 million.
- Decision on the formation and capitalization of subsidiaries in amounts of more than SEK 2 million.
- Adoption of the annual report, administration report and interim reports.
- Raising of loans
- Signing of agreements with a term of more than five years.
- Launching of large-scale lawsuits and settlement of disputes of material significance.
- Other matters of material financial or other significance.

Furthermore, the Board has adopted instructions for the CEO, authorization instructions including instructions for liquidity management and a policy for foreign exchange management. The rules of procedure, CEO's instructions and authorization instructions are reviewed at least once a year.

#### BOARD ATTENDANCE DURING 2018 <sup>1)</sup>

Members elected by the AGM	Elected in	Born in	Board meetings Attend-ance/ total no. of Board meetings	Remu-neration Committee Attendance/ total no. of committee meetings
Chairman of the Board Peter Rothschild <sup>4)</sup>	2018	1950	9/9	
Vice Chairman of the Board David Dangoor <sup>2)</sup>	2003	1949	13/13	1/1
Board member Jan Annwall <sup>5)</sup>	1990	1950	4/4	
Board member Ewa Björling <sup>2)</sup>	2015	1961	13/13	
Board member Isabelle Ducellier <sup>2,3)</sup>	2018	1969	8/8	
Board member Peter Elving <sup>2,4)</sup>	2018	1948	8/9	
Board member Stefan Elving <sup>2,5)</sup>	2001	1941	4/4	1/1
Board member Margaretha Gadnell <sup>5)</sup>	2017	1959	3/4	
Board member Inger Holmström <sup>2)</sup>	2007	1948	13/13	
Board member Anthon Jahreskog <sup>2)</sup>	2015	1980	13/13	
Board member Brit Stakston <sup>2)</sup>	2014	1961	11/13	

<sup>1)</sup> All members of the Board who have been prevented from participating in a Board meeting have been given the opportunity to present their views to the Chairman prior to the meeting.

<sup>2)</sup> Independent in relation to the major shareholders, the company and the company's management.

<sup>3)</sup> Elected to the Board at the AGM on 25 April 2018 until 5 November 2018 when she took up the position of CEO of the company

<sup>4)</sup> Elected to the Board at AGM 25 April 2018.

<sup>5)</sup> Board member up to the AGM 25 April 2018.

At the Board meetings, the following are dealt with as required:

- Business plans
- Business performance monitoring
- Investments
- Strategic matters
- Financial reports
- Major agreements
- Budgetary matters
- Accounting matters

The Board of Directors continuously evaluates its own performance through both open discussions and a written self-assessment. The results of the written assessment are submitted to the Nominating Committee.

**BOARD FEES** The 2018 AGM resolved that Board fees would be paid in an amount of SEK 600,000 to the Board Chairman, SEK 400,000 to the Vice Chairman and SEK 200,000 to each of the other Board members not employed by the company.

**BOARD CHAIRMAN** The Chairman supervises the work of the Board and is responsible for ensuring that the Board carries out its duties in accordance with the Swedish Companies Act and the rules of procedure. Through ongoing contact with the CEO, the Chairman continuously monitors the company's development and ensures that the Board is provided with the information necessary to carry out its duties. Peter Rothschild has been Board Chairman since the 2018 AGM.

**CEO** The CEO is responsible for overseeing the company's business development and for supervising and coordinating its day-to-day operations. The Board has established instructions for the CEO that among other things regulate management and development of the company and the provision of reports and decision data to the Board. The CEO prepares the required information and decision data such as reports on the company's finances, the order situation, significant business matters and strategic issues prior to Board meetings, as well as presenting reports and motivating proposals for decision. Furthermore, the CEO continuously informs the Board Chairman about the company's financial and business situation. Every year the Board carries out an evaluation of the CEO's performance at which no member of the Executive Management is present. Axel Sjöblad was Managing Director from 1 March 2016 until 30 June 2018. Isabelle Ducellier took up the position of CEO on 5 November 2018. During the period 1 July to 4 November 2018, Sebastian Schröder, Executive Vice President Business Development, was Acting Managing Director.

**EXECUTIVE MANAGEMENT** BioGaia's Group Executive Management consists of the nine individuals who are presented on page 36.

The Group's Executive Management is headed by the CEO and is responsible for planning, supervising and monitoring the company's day-to-day operations. Minuted meetings are normally held once a month. The responsibilities and powers of the CEO are regulated by the Swedish Companies Act and by the instructions that are adopted by the Board. The responsibilities and powers of the Executive Management are defined in the job descriptions and in authorization instructions.

**REMUNERATION COMMITTEE** The Board has appointed a Remuneration Committee consisting of Board Chairman Peter Rothschild and Board member Peter Elving. The task of the Remuneration Committee is to prepare recommendations for the remuneration and other terms of employment of the CEO and other senior executives who together make up the Executive Management. The principles for remuneration to senior executives are resolved on by the AGM. The Remuneration Committee prepares its recommendations based on these principles.

**AUDITORS** BioGaia's independent auditors are normally appointed by the AGM to serve for a period of one year. The 2018 AGM resolved on re-election of the registered auditing firm of Deloitte AB to serve for the period until the end of the AGM to be held in 2019. The auditing firm appointed Birgitta Löf as Auditor in Charge. By decision of the AGM, auditing fees are paid according to approved account.

The auditors examine the administration of the company by the Board of Directors and the CEO and the quality of the company's financial reporting. At the request of the Board, the auditors also review the semi-annual report and the year-end report.

The auditors report the results of their review to the shareholders through an audit report, which is presented to the AGM. In addition, the auditors submit written and oral reports to the Executive Management and the Board. The auditors take part in the Board meeting preceding publication of the year-end report and the semi-annual report to present the results of their audit of the annual accounts and the interim report respectively and observations from

ongoing examination of the company's internal control during the financial year.

The auditors also submit an auditor's statement on the corporate governance report, the sustainability report and a report on the examination of remuneration to senior executives.

Deloitte has provided certain tax-related advice and performed other audit-related services. Information about remuneration to the auditors can be found in Note 5 of the annual report.

Due to the fact that independent Board members have accounting expertise and in view of the Board's ongoing examination of the financial reporting and the company's limited size and transaction volume, the Board has decided not to set up an audit committee. Furthermore, the entire Board of Directors meets with the auditors at least once a year without the presence of the CEO or other members of the Executive Management.

#### THE BOARD'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING FOR THE FINANCIAL YEAR 2018

**Introduction** Pursuant to the Swedish Companies Act, the Swedish Annual Accounts Act and the Swedish Code of Corporate Governance, the Board of Directors is responsible for establishing and maintaining adequate internal control. This description has been prepared in accordance with these rules and provisions and is thereby limited to internal control over financial reporting.

**Internal control over financial reporting** The Board is responsible for ensuring that the company's organization is suitably structured so that the financial accounts, cash management and other financial conditions can be controlled satisfactorily.

Every year, the Board of Directors adopts rules of procedure for the Board's activities and instructions regulating the division of responsibilities between the Board and the CEO. The rules of procedure state which matters require approval or authorization from the Board. At Board meetings, the CEO reports on matters requiring consideration by the Board.

The CEO ensures that the Board is provided with the objective, detailed and relevant information needed for the Board to make well-founded decisions and that the Board is continuously informed about the company's business development and financial position.

Aside from the rules of procedure between the Board and the CEO, BioGaia's control structure is based on the company's organization and way of conducting operations, where roles and responsibilities are defined. There is a high level of employee awareness about the importance of maintaining good control over financial reporting. The company's financial development is assessed and monitored monthly. Financial reports and summaries are prepared by the Group's finance department and are presented to the Board quarterly and to the Executive Management monthly.

**The company's values** BioGaia also has a set of shared values and the company's employees are well aware of these (see below). This is ensured through interviews in connection with new hires and through regular workshops with each department.

#### BioGaia's values

- My personal engagement is vital for BioGaia's success
- We are innovative and action oriented
- We are business minded and deliver on our promises
- We are honest, respectful and selfless in what we do and say

**Risk assessment** The company works continuously with risk assessment and risk management to ensure that the risks to which the company is exposed are handled within the limits ultimately established by the Board. The Executive Management continuously analyses the company's business processes with regard to efficiency and risks.

This work includes identifying significant risks for misstatements and deficiencies in the financial reporting and ensuring that there are suitable processes and controls in the company's operations to limit these risks. The most critical business processes and the absolutely largest values, in terms of both assets and business/product development, are found in the Parent Company. In addition, the bulk of sales take place in the Parent Company. Processes that are deemed to be of special importance to BioGaia are sales including quality assurance, R&D and manufacturing.

**Control activities** The risks identified in the financial reporting are managed through a number of control activities in the company's processes. Processes and controls are reviewed and updated regularly in order to detect, prevent and correct any errors or deficiencies. The control structure also includes the division of powers and responsibilities and the Executive Management's monthly review of the company's financial information.

**Information and communication** BioGaia has information and communication paths that are designed to promote the completeness and accuracy of the financial reporting. Authorization instructions and policies are distributed to all employees and can be viewed on the company's intranet. Once a year, all of BioGaia's employees meet to increase their knowledge about the company's processes and goals and to exchange information and experiences.

**Monitoring** The Executive Management performs a yearly evaluation of the effectiveness of internal control. Every year, the company's elected auditing firm, Deloitte AB, also reviews a selection of BioGaia's routines and internal controls. The Board then evaluates this information and ensures that measures are taken in respect of the identified deficiencies and resulting recommendations.

The company has no special review function (internal audit). In light of the company's size and the volume of transactions, together with the expertise in this area possessed by the Board of Directors and the Board's meeting with the independent auditor, the Board has determined that there is no reason to set up a formal internal audit function.

#### Stockholm, 5 March 2019

Peter Rothschild  
*Board Chairman*

David Dangoor  
*Vice Chairman*

Ewa Björling  
*Board member*

Peter Elving  
*Board member*

Inger Holmström  
*Board member*

Anthon Jahreskog  
*Board member*

Brit Stakston  
*Board member*

## AUDITORS' REPORT ON THE CORPORATE GOVERNANCE STATEMENT

To the general meeting of the shareholders in BioGaia AB (publ) corporate identity number 556380-8723

#### ENGAGEMENT AND RESPONSIBILITY

It is the board of directors who is responsible for the corporate governance statement for the financial year from 1 January 2018 to 31 December 2018 on pages 73-75 and that it has been prepared in accordance with the Annual Accounts Act.

#### THE SCOPE OF THE AUDIT

Our examination has been conducted in accordance with FAR's auditing standard RevU 16 The auditor's examination of the corporate governance statement. This means that our examination of the corporate governance statement 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 examination has provided us with sufficient basis for our opinions.

#### OPINIONS

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

#### Stockholm, 8 March 2019

Deloitte AB

Birgitta Löf  
*Authorized public accountant*

# The BioGaia share

Figures in brackets refer to the preceding year

**TRADING VOLUME** BioGaia AB's class B share has been quoted on the OMX Nordic Exchange Stockholm since May 1998. On 1 January 2012 the shares were moved from the Small Cap list to the Mid Cap list.

In 2018 BioGaia shares were traded for a total of around SEK 2.193 million (1,568), corresponding to approximately 5.6 million shares (4.9).

The number of shareholders at 31 December 2018 was 8,908 (8,566).

The total registered share capital of BioGaia AB consists of 740,668 class A shares and 16,595,794 class B shares.

**SHARE PRICE DEVELOPMENT** In 2018 the share price decreased from SEK 326.00 to SEK 317.50. The highest closing price during the year was SEK 494.50 and the lowest was SEK 280.00. Market capitalization at 31 December 2018 was approximately SEK 5,505 million (5,650).

**DIVIDEND POLICY** BioGaia's policy is to pay a shareholder dividend equal to 40% of profit after tax.

**INCENTIVE SCHEME** The company has no ongoing share-based incentive schemes.

However the company has a bonus program aimed at ensuring employees' long-term commitment to BioGaia. The bonus is based on the company's sales and profits. The maximum bonus amounts to 12% of salary.

The employee is required to reinvest one-third of the yearly paid-out bonus (after tax) in BioGaia class B shares at a market price and to hold these for a three-year period. BioGaia has no obligation to repurchase shares nor does the employee have any obligation to sell shares in the event employment is terminated within three years from the date reinvestment took place.

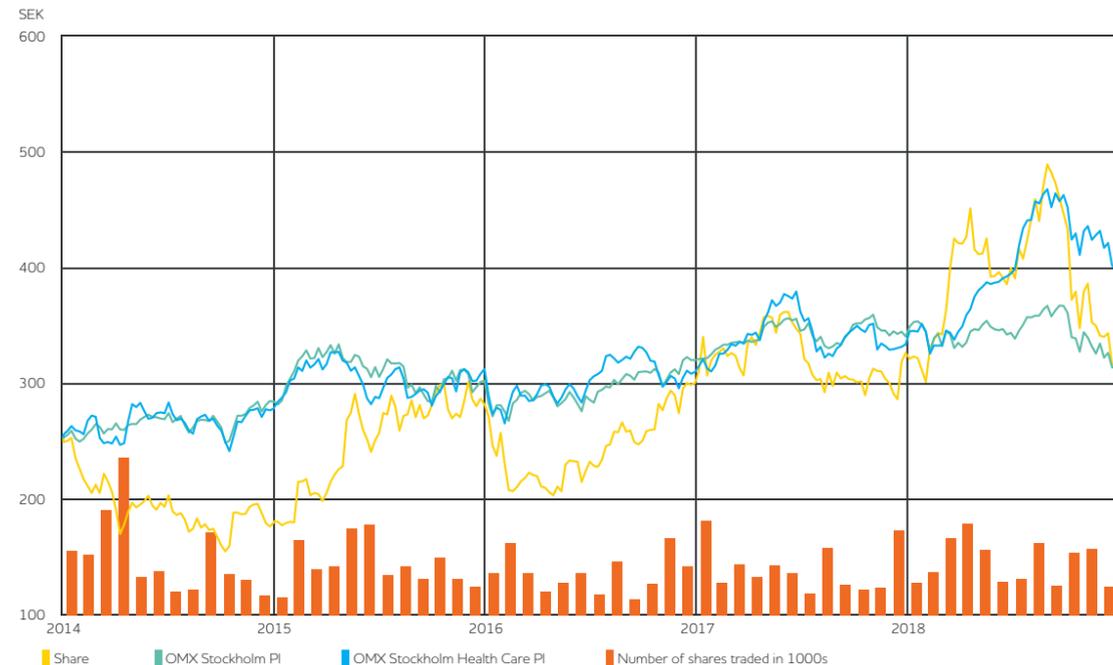
## DISTRIBUTION OF OWNERSHIP

Number of shares	Total number of shareholders	
	31 December 2018	31 December 2017
1–500	7,851	7,397
501–1,000	505	540
1,001–5,000	360	422
5,001–10,000	61	70
10,001–15,000	24	29
15,001–20,000	13	12
20,001–	94	96
<b>Total number of shareholders:</b>	<b>8,908</b>	8,566

## LARGEST SHAREHOLDERS IN BIOGAIA AT 31 DECEMBER 2018 (SOURCE: EUROCLEAR SWEDEN AB)

	A shares, 000s	B shares, 000s	Share capital, SEK 000s	No. of votes, 000s	Holding, %	Votes, %
Annwall & Rothschild Inv. AB	741	359	1,100	7,766	6.3	32.4
Swedbank Robur fonder		1,627	1,627	1,627	9.4	6.8
Fjärde AP-fonden		1,408	1,408	1,408	8.1	5.9
Öhman Bank SA		1,164	1,164	1,164	6.7	4.9
State Street Bank & Trust co		713	713	713	4.1	3.0
David Dangoor		519	519	519	3.0	2.2
Banque Pictet & CIE		459	459	459	2.6	1.9
SSB and Trust company, Boston		413	413	413	2.4	1.7
State Street Bank & Trust com. Boston		390	390	390	2.2	1.6
BNY Mellon SA/NV (Former BNY)		332	332	332	1.9	1.4
Ålandsbanken on behalf of owners		329	329	329	1.9	1.4
JP Morgan Chase NA		298	298	298	1.7	1.2
BNY Mellon NA (Former Mellon)		256	256	256	1.5	1.1
Hanvad Invest Aktiebolag		248	248	248	1.4	1.0
Tredje AP-fonden		241	241	241	1.4	1.0
Sten Inwe		225	225	225	1.3	0.9
AMF-Försäkring och fonder		222	222	222	1.3	0.9
Nordea Investment Funds		210	210	210	1.2	0.9
Andra AP-fonden		185	185	185	1.1	0.8
CBNY Norges Bank		185	185	185	1.1	0.8
Nordnet Pensionsförsäkring AB		162	162	162	0.9	0.7
SEB Investment Management		144	144	144	0.8	0.6
BNP Paribas Sec Services Paris		142	142	142	0.8	0.6
Lazard Freres Banque		138	138	138	0.8	0.6
UBS Switzerland AG		127	127	127	0.7	0.5
Other Shareholders		6,099	6,099	6,099	35.2	25.4
<b>Total</b>	<b>741</b>	<b>16,596</b>	<b>17,336</b>	<b>24,002</b>	<b>100.0</b>	<b>100.0</b>

## THE BIOGAIA SHARE



## CHANGES IN SHARE CAPITAL SINCE THE COMPANY'S FORMATION

Year	Transaction	Increase in no. of shares	Increase in share capital, SEK	Total share capital, SEK	Total no. of A shares	Total no. of B shares	Quota value, SEK	Issue proceeds, SEK
1990	Company founded			150,000		30,000	5.00	–
1991	New share issue	12,857	64,285	214,285		42,857	5.00	4,500,000
1993	New share issue	12,554	62,770	277,055		55,411	5.00	4,394,341
1995	New share issue	2,303	11,515	288,570		57,714	5.00	806,009
1996	Bonus issue/Split	60,541,986	5,771,400	6,059,970	4,740,278	55,859,422	0.10	–
1996	New share issue	18,200,000	1,820,000	7,897,970	4,740,278	74,059,422	0.10	15,320,000
1997	New share issue Banco Fonder	2,608,696	260,870	8,140,840	4,740,278	76,668,118	0.10	5,760,000
1997	New share issue BioGaia Fermentation	4,400,000	440,000	8,580,840	4,740,278	81,068,118	0.10	7,469,000
1997	New share issue	21,452,099	2,145,210	10,726,050	5,925,347	101,335,148	0.10	38,597,265*
1998	New share issue	5	1		5,925,350	101,335,150	0.10	20
1998	Reverse split				592,535	10,133,515	1.00	–
1998	New share issue (IPO on SSE)	2,681,512	2,681,512	13,407,562	740,668	12,666,894	1.00	57,934,131*
2000	New share issue November	3,275,000	3,275,000	16,682,562	740,668	15,941,894	1.00	73,031,886*
2000	New share issue December	425,000	425,000	17,107,562	740,668	16,366,894	1.00	11,505,294*
2004	New share issue Industrifonden	100,000	100,000	17,207,562	740,668	16,466,894	1.00	100,000
2010	New share issue warrant program	63,400	63,400	17,270,962	740,668	16,530,294	1.00	4,862,780
2015	New share issue warrant program	65,500	65,500	17,336,462	740,668	16,595,794	1.00	15,844,450

\* Excluding underwriting costs

# GLOSSARY

**Antibiotics** Compounds that kill or inhibit the growth of microorganisms.

***Helicobacter pylori*** Very commonly occurring bacteria in many parts of the world. Resides in the stomach and may lead to peptic ulcers and gastric cancer.

**Clinical research** Research conducted in humans.

**Lactobacillus** Lactic acid bacteria. A collective name for a group of microorganisms that occur naturally in various foods such as yogurt, olives and pickled vegetables. In the past, we ingested a great deal of lactic acid bacteria, but today our diet lacks these beneficial bacteria. Some lactic acid bacteria are also present in the human commensal flora.

Lactic acid bacteria have different properties and may thus provide different health effects when consumed. There are a large number of lactic acid bacteria, for example *Lactobacillus reuteri* and *Lactobacillus acidophilus*.

***Lactobacillus reuteri* (*L. reuteri*)** Species within the genus *Lactobacillus*. The vast majority of BioGaia's patented probiotics consist of different strains of *Lactobacillus reuteri*, for example, *Lactobacillus reuteri* Protectis.

***Lactobacillus reuteri* Gastrus** Combination of two strains of *Lactobacillus reuteri*, used in BioGaia's digestive health product for use in connection with *Helicobacter pylori* infection.

***Lactobacillus reuteri* Prodentis** Combination of two strains of *Lactobacillus reuteri*, used in BioGaia's oral health products.

***Lactobacillus reuteri* Protectis** Strain of *Lactobacillus reuteri*, used in BioGaia's digestive health products for children and adults.

**Partner** The companies distributing and selling BioGaia's products.

**Probiotics** Live microorganisms that, when administered in adequate amounts, confer a health benefit on the host.

**Resistant bacteria** Bacteria that have become resistant to one or several antibiotics.



BioGaia is an innovative Swedish healthcare company and has been a world-leader in dietary supplements with probiotics for nearly 30 years. The products are based mainly on different strains of *Lactobacillus reuteri* and are sold by distribution partners in 100 countries.

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