

## TwoPac solves the practical details



At TwoPac in Eslöv, Reuteri is inserted into straws for delivery to the customers.

**Read more on page 13**



## Communication is key

Cristián Contreras, BioGaia's newly appointed Director of Marketing, is focused on giving customers the best possible support.

**Read more on page 9**

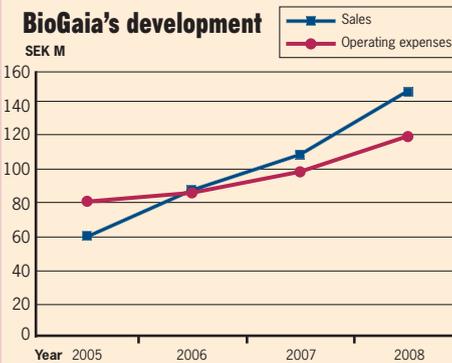


## Product development

Innovative products are one of BioGaia's hallmarks, and Lund is where their development takes place.

**Read more on page 11**

# BioGaia®



A magazine from BioGaia about past year

Annual report 2008

## Profits rising

In several parts of this publication we talk about BioGaia's "model", what it consists of and that it works. Another way to describe the model is by drawing two curves, as in the diagram above. The blue curve shows sales and the red curve operating expenses over the past four years. As you can see, there is a growing gap between the two. That's where the model comes in.

**Read more in the annual report and in the magazine**



## Discoverers

In the mid 1980s, Walter Dobrogosz and Sven Lindgren met at the Swedish University of Agricultural Sciences in Uppsala where their shared efforts led to a discovery that laid the foundation for BioGaia's business, namely *Lactobacillus reuteri*.

**Read more on pages 4 and 5**

## Many languages in many countries

BioGaia strives for close partnership with its customers and distributors. Jonas Weimer, BioGaia's new Director of Sales, provides good examples of how the BioGaia brand is being handled around the world.

**Read more on pages 6 and 7**

## New study highlights benefits of probiotics

Professor Svante Twetman's study confirming the role of BioGaia Prodentis in oral health was published in autumn 2008. "The study gives greater weight to our message to dentists and oral hygienists and indicates additional areas for future studies," says Anders Zachrisson at BioGaia.

**Read more on page 8**

# HEALTHY GROWTH

Products for children are showing fast growth and good profitability. BioGaia's Probiotic drops give children around the world a good start in life and help them to grow up healthy. With its portfolio of high quality and profitable products, BioGaia is also experiencing healthy growth.

PHOTO: ORELJAN KARLSSON

# The model works

**IT'S CLEAR TO SEE** that the business model we've been using since 2000 is working, and working well. Our strategy is to find local distributors, often smaller ones, who see our products as a significant part of their offering and to maintain good contact with their managements and often also their owners.

It is important that our distributors have sales forces targeting relevant segments of the medical profession, which in the case of our probiotic drops means paediatricians. The products are sold in pharmacies and are recommended by doctors. Another part of the model is to encourage the local partners to initiate clinical trials as a means for awakening interest in our products among doctors and other healthcare personnel. Today we choose partners that want to sell products under the BioGaia brand.

In 2008 BioGaia-branded products accounted for 20% of our total finished product sales, which is no small achievement in view of the strong increase in products sold under partner brands.

To support these sales and implant the BioGaia brand in the consciousness of healthcare providers, we take part in medical conferences and exhibitions and host our own seminars for physicians featuring lectures by researchers who have worked with Reuteri. In 2008 we were very active in this type of marketing and will remain so in 2009 and onwards. The intention is to position BioGaia as a well known brand and a symbol for quality probiotics among health professionals so that they recommend our products to their patients.

Product sales are rising in all markets, with the strongest growth for BioGaia's



Peter Rothschild, Managing Director of BioGaia.

probiotic drops in Europe. It's fantastic to see how enthusiastically our products are being received in countries like Ukraine, Bulgaria and Slovakia. Spain and Portugal are other countries where sales have picked up good momentum. Our partners Delta Medical, Ewopharma and Ferring are ideally suited to our model and are doing a superb job in their respective markets. And we are amazed at the strong sales growth in established markets like Italy and Finland. Verman in Finland and Noos and Italchimichi in Italy are doing outstanding work in their countries.

**THE US MARKET IS** also showing signs of burgeoning growth, albeit from a low level. There, our partner Everidis is working hard to get things rolling, in line with the model, and I am certain that we will see excellent results in the future.

In Japan we have attempted to adapt our model to this large but challenging market. It has proven difficult to reach physicians, but we have also made direct contact with hospitals and tried to get a foothold among pharmacies and drugstores. But while sales are increasing, the actual sales and marketing process is a drain on resources and we have therefore decided to find one or several suitable distributors in Japan. Based on rising sales and a close partnership with a local supplier, I believe the Japanese venture will show a profit in the second half of 2009.

These days it's hard to avoid mentioning the economic situation. Dire headlines fill the news day and night and it is easy to become passive and take a "wait and see" approach. We naturally have to be observant to what is happening in the world around us, but from a purely

objective standpoint we have not seen any indications that our business has suffered. There has perhaps been a slight decrease in the dairy products segment, but thanks to our strong agreements this has not led to any loss of revenue.

It is difficult to predict what lies around the corner. We remain alert and are continuing to explore and develop new indications and delivery systems that will be our future sales successes.

2009 looks to be a very exciting year with a number of clinical studies underway and launches in several markets. Our partner Nestlé is launching infant formula and follow on formula with Reuteri and is ambitiously marketing Kid's Boost Essential with our straw in the USA. In the past year we signed no fewer than ten agreements under which we will launch products in 2009.

**OUR SALES HAVE RISEN** by an average of nearly 40% annually since 2002. We have been profitable since 2006 and our Board has now proposed a dividend to the shareholders. I am naturally delighted that we have the means to give something back to our shareholders, and can do so without impairing our ability to seize the opportunities ahead.

Regardless of what happens in the economy, we are sticking to the business model that has proven sustainable and capable of generating substantial profits. I am convinced that there is a fundamental and growing need for our products and I look to the future with confidence! □

Peter Rothschild, Managing Director of BioGaia

## FAST FACTS ABOUT BIOGAIA

- BioGaia is a biotechnology company that develops, markets and sells probiotic products with documented health benefits.
- The products are based primarily on different strains of the lactic acid bacterium *Lactobacillus reuteri* (Reuteri).
- The products, such as drops, tablets and baby formula with Reuteri, are sold in some 40 countries worldwide.
- BioGaia also sells and develops unique delivery systems, such as probiotic-containing straws and caps.
- BioGaia has 42 employees, of whom 17 work in Stockholm, 18 in Lund, 3 in Raleigh, USA, and 4 in Hiroshima, Japan.
- The company's class B share is quoted on the small caps list of the Nasdaq OMX Nordic Exchange Stockholm.
- In Sweden, BioGaia's products are sold under the brands Semper Magdroppar and Gum PerioBalance chewing gum in pharmacies, as well as Semper whole grain cereal and infant formula with active culture and Probiomax gut health tablets in grocery stores.
- BioGaia's research is focused on selection of different probiotics for gut health, the immune system and oral health.
- Extensive clinical studies have shown that BioGaia's various probiotic products stimulate the human immune system, protect against GI tract and respiratory tract infections, alleviate the side effects of antibiotic treatment and reduce the level of *H. pylori* infection. Studies also show that Reuteri relieves infantile colic, reduces the risk of infection in pre-term infants and reduces gum inflammation, plaque and the risk for dental caries.

**EDITORIAL STAFF:** Editor-in-chief: Peter Rothschild **Editorial board:** Margareta Hagman, Jan Annwall and Peter Rothschild, BioGaia. Kjell Karlsson, Tidningsmakarna **Address:** BioGaia AB, Box 3242, 103 64 Stockholm **Project manager/Editor:** Kjell Karlsson, Tidningsmakarna **Graphic design:** Christer Lythell, Tidningsmakarna **Layout of annual report:** Chatarina Andersson, BioGaia **Printing:** AB Danagårds Grafiska 2009 **Translation:** GH Language Solutions **www.biogaia.com**

# Digging deeper in research

The key to successful clinical studies lies in the collaboration with our partners, feels Director of Research Eamonn Connolly.



PHOTO: ULF LODIN

The network of researchers studying *Lactobacillus reuteri* is expanding steadily and at the centre of this web is Eamonn Connolly, BioGaia's Director of Research, a role that he enjoys and that is becoming increasingly interesting for every year that passes. Although there are rarely any revolutionary breakthroughs in this field, there is an exciting journey to be made in the world of microbiology.

**"TODAY OUR RESEARCH IS** focused on digging deeper and deeper and we are working at a more basic level than earlier," explains Eamonn Connolly. "This is partly due to advances in genetic techniques and the fact that the bacterium's genome, its genetic makeup, has now been fully sequenced."

Research projects are underway around the world and Eamonn's task is to gather the results and continue building up the company's bank of knowledge about probiotics in general and Reuteri in particular.

"Research results provide new knowledge, but the practical be-

nefits and potential in new application areas for Reuteri or a new strain are first seen in well controlled clinical trials. Clinical studies are crucial for BioGaia to move forward and develop new products."

"The key to successful clinical studies often lies in the collaboration with our partners," says Eamonn Connolly. "We plan to continue on this path. Experiences from Italy show that it is an effective approach that benefits both us and our partners."

**A NUMBER OF HIGHLY** successful Italian studies in recent years have gained widespread atten-

tion. Savino's studies on how Reuteri affects infantile colic and Indrio's study on preterm newborns are two such examples that were given extensive coverage in the media, and led to an immediate pick-up in sales.

Eamonn considers this work model strategically important and would like to see it used among the company's partners in all countries.

"By cooperating with our partners in new clinical trials, we create a closer strategic interplay between research, marketing and sales that has very bright prospects for the future." □

## LACTOBACILLUS REUTERI – GETTING THE FACTS STRAIGHT

- Reuteri's full name is *Lactobacillus reuteri*. It belongs to the lactobacillus family, also known as lactic acid bacteria. Both names are correct, in the same way that bacteria and germs mean the same thing.
- Within the Reuteri species there are a number of different strains, just as there are many different breeds of dog.
- Unlike dogs, however, the various Reuteri strains look almost identical. The differences lie in their genetic make-up and are visible when the DNA of the strains is compared.
- Reuteri is an unusual lactic acid bacterium and differs from most other lactobacilli in that it is adapted to reside in the gastrointestinal tract.
- At present BioGaia has some 50 Reuteri strains in its research bank, and it is here scientists are searching for strains with properties that can contribute to improving human health.
- Lactic acid bacteria occur naturally in both humans and animals and belong to the category of "good" bacteria that we depend on to maintain our health.
- If we compare with mammals, Reuteri is a separate species within the lactobacillus family just as dog is a species in the mammal family.
- The species of dog consists of countless breeds of various shape, colour and size, but they are all dogs, even though there is a great difference in the appearance between a Pekinese and an Irish Wolf Hound.

# Pioneering microbiologists...

Research can be defined as the process of seeking answers to given questions based on a set of assumptions. But the results may not be what a researcher is expecting, and may in fact be the answer to totally different questions. The secret is to be open to whatever emerges – and suddenly you have a whole new discovery on your hands. That's what happened to Sven Lindgren and his colleagues the day they discovered reuterin.

**HE GREW UP IN** the Swedish province of Jämtland but has none of the hallmarks of a taciturn northerner, quite the contrary. After graduating from high school in Sundsvall in the 1960s, one thing was clear – all roads led to Uppsala.

So also for Sven Lindgren, who began studying mathematics, zoology, chemistry and microbiology and was soon immersed in the academic world. After earning a bachelor's degree, he was hired by the Swedish University of Agricultural Sciences (SLU) as a teacher's assistant, which also meant working on this own thesis in microbiology.

In those days the study of microbiology was far removed from today's modern methods and tools, not least in the area of genetics.

"My research was on the use of microorganisms as a preservative," says Sven Lindgren, "to make silage without using organic acids, such as formic acid, which was the most common method back then. Somewhere along the line I became interested in studying how to use bacteria in a positive way in different environments, not least in the food area where they had been used for some time in certain dairy and meat products."

**BUT AT THIS STAGE**, the path leading to an academic career was not a clear one. Music was another powerful influence in his life, and has remained so to this day.

Despite his musical pursuits, Sven managed to complete his thesis on time and also found several viable alternatives for the

use of microorganisms as food preservatives.

Among the useful microbes, lactobacilli were an important group that displayed positive attributes.

Around this time people started looking at ways to phase out antibiotics as an additive in animal feed.

Together with two colleagues, Lennart Björk and Torkel Wadström, Sven was given the task of evaluating whether it was possible to use lactic acid bacteria for preventative purposes. The first step was to create a model system on which to build further.

"At the same time, I was visited by Walter Dobrogosz from the USA and we were discussing this model system. We were wondering how we could get the *E. coli* bacteria to grow, but not the lactobacilli, and came up with the idea of adding glycerol, a byproduct from saponification of fats. What actually happened was that the bacteria produced a substance we called reuterin, which proved to have a powerful inhibitory effect and the *E. coli* just disappeared."

**THIS PREVIOUSLY UNKNOWN** phenomenon and the discovery of reuterin, a substance produced by *Lactobacillus reuteri*, awakened an interest in the Reuteri bacteria. The next step was to identify how reuterin was formed, as part of doctoral student Lars Axelsson's research.

Studies were performed on a number of different lactobacilli, but Reuteri showed such a distinct inhibitory effect on *E. coli* that the team chose to focus on it exclusively.

The discoveries made back in the mid-1980s provided grounds for a patent on Reuteri and laid the foundation for what is today BioGaia.

Continued development work was carried out in the USA by Walter Dobrogosz, and together he and Sven founded a company there. The idea was to find partners who could assist in developing products that could be taken to market.

"One observation I made during this period was that as a scientist, you have to learn to hand over good ideas to the real entrepreneurs. We almost always lack the necessary skills. What Jan Annwall and Peter Rothschild have achieved after nearly 20 years with BioGaia and Reuteri, we would never have come close to on our own."

**HOW BIOGAI A CAME INTO** the picture is a whole different story and shows, just as in the discovery of Reuterin, that you never know what's waiting around the corner. Or in this case, in the Swiss ski resort of Verbier.

There, Sven ended up sharing a chairlift with Per Hellström, who was working with Jan Annwall and Peter Rothschild in a venture to export organic produce from southern France to Sweden. They were having problems keeping the vegetables fresh and Sven explained how it was possible to preserve food products by natural means with the help of microorganisms.

Contact was established and BioGaia ended up acquiring Sven and Walter's company together with its patents and office in Raleigh, USA.

Sven's career took a new di-

rection at the beginning of the 1990s when he accepted a professorship at the Swedish National Food Administration (NFA), but without losing contact with BioGaia and its research on Reuteri. During his time at the NFA, Sven worked extensively with food safety at the international level. And although recently retired, his international commitments have continued and he still devotes about six days a month to assignments mainly for the European Food Safety Authority (EFSA) – a panel of experts that provides independent scientific advice in the food safety area.

Nor has he not forgotten his Jämtlandic origins, and helps indigenous Same people in Idre

to develop their self-produced products.

Even so, Sven has plenty of time for his music and family – his wife, three children and two small grandchildren.

And of course his saxophone.

**"I'M A MEMBER OF** a big band called the Sunshine Orchestra which mostly plays music from the 1940s, and we have a smaller ensemble that plays jazz. As a recent retiree, I also play in a pensioners' orchestra between one and four in the afternoon on Wednesdays. But I have so much work that I've missed quite a few sessions," confides Sven Lindgren, who still hasn't quite decided whether to go for music or microbiology. □



On the wall at BioGaia's head office hangs a picture of *Lactobacillus reuteri*'s discoverers, Walter Dobrogosz (at left) and Sven Lindgren.



# ...laid the foundation for BioGaia of today

It's not possible to talk about the discovery of *Lactobacillus reuteri* and origins of BioGaia's core business without also mentioning Professor Walter Dobrogosz. He has a long and illustrious career as a microbiologist behind him and is still active in this field despite the addition of "Emeritus" to his title.

**WALTER DOBROGOSZ WAS BORN** and raised in Erie, Pennsylvania, and educated at Pennsylvania State University, where he also earned his Ph.D. He stayed active in the research sphere and eventually became a Professor at North Carolina State University, where he spent a large share of his professional life. Listing all of his awards and grants would take up far too much space, but it was in fact a grant that brought him to Sweden and Uppsala in the mid-1980s.

"At that time I was doing research on *Escherichia coli* and had started to wonder what role lactic acid bacteria could play in this context. Around the same time, my eldest son had moved to Stockholm, so my wife and I investigated whether anyone in Sweden was interested in researching lactobacilli. I came in contact with Sven Lindgren, who was keen to know more about what I was doing. I then applied

for a grant from the Fulbright Commission, came to Sweden on 1 August 1983 and initially stayed for one year. I later returned to Sweden in 1985 for a few months as a Guest Professor in Lund.

**Is there anything special you remember from your work leading up to the discovery of Reuteri?**

"It started out with Sven isolating a number of unidentified lactobacilli strains from healthy sows. He asked if I had any idea how to determine whether these strains could produce an unknown antimicrobial/antibiotic substance. I had a new method that was capable of doing that and we were able to prove that these strains, identified by Sven's student Lars Axelsson as *Lactobacillus reuteri*, could produce this new antimicrobial substance

which was later named reuterin.

I then took the strains home to my lab at NC State University and continued working with reuterin. After filing for patent we then founded a company, ProBiologics International Inc. (PBI), based on our discoveries.

**How did you end up deciding to start a company based on Reuteri?**

"It was an idea that took shape in the course of our work, when we saw that Reuteri had unique attributes. We continued to isolate strains from different species. Dr. Ivan Casas, our Research Director, tested the effects of Reuteri on turkeys, with successful results, and similar trials were carried out on chickens. Eventually, we also used a human strain. At that point we knew there was a market for our product. The research and developments carried out by PBI provided a foundation for what today is known as BioGaia AB.

**Now that you have left the academic world, are you staying abreast of developments related to Reuteri?**

"I continue to take an interest in and work with *Lactobacillus reuteri* in various ways. Among other things, I hold seminars on this topic, examine the future potential and do some teaching here at home in Raleigh.

**A completely different question – Steve Dobrogosz is a well known musician in Sweden, is there any connection?**

"Absolutely! Donna and I have been blessed with four wonderful children and nine equally wonderful grandchildren. Steve is our eldest. He met Katarina Fritzén, a flautist, at the Berkeley School of Music in Boston and they married in Sweden while Steve was attending the Royal Academy of Music. Their eldest son Jonathan is following in his parents' footsteps. He recently graduated from the Academy and has released his own CD. One magazine wrote that Steve is the new Chopin, but we think he's better!"

**So it's actually thanks to Steve that you came to Sweden, *Lactobacillus reuteri* was discovered, and BioGaia is a successful company today?**

"Yes, I guess you could say that!" □

# Our partners are doing

**Jonas Weimer, BioGaia's former Regional Director for Europe, is the company's new Vice President of Sales. He describes BioGaia's business model and how it is implemented by three partners, all of which work with BioGaia's own brand. These three rather different companies have one thing in common – in a short span of time they have significantly increased their market shares.**

**BIOGAIJA'S BUSINESS IS BASED** on close cooperation with its customers, more accurately referred to as partners. These are the companies responsible for marketing and sales at the next level, in their own respective markets. BioGaia's regional directors have continuous contact with the existing customers and also follow up new leads.

For several years BioGaia has applied a business model for the partner relationship that is adapted to their individual conditions and resources. One key aspect of this model is to pro-

“Based on the Italian example, we are in the process of rolling out this model on a global level.”

JONAS WEIMER

vide all customers with uniform marketing material, a cohesive and consistent message that provides a platform on which to build the BioGaia brand. The more partners who work from this platform, the greater the scope to gather tips and ideas from others in the network.

The next important aspect is to support the partners in their efforts to initiate local clinical studies. Jonas Weimer sees several advantages in this.

“Not only do they provide clinical results that can be used in other markets, but our partner also gains a lot of product-related attention in its market.”

The perhaps best example of this so far was the attention focused on BioGaia's Reuteri drops in Italy last year following the studies by Dr. Savino on infantile colic and Dr. Indrio on the effects of Reuteri on preterm newborns. Both newspaper and TV coverage was extensive and sales took an immediate leap forward.

**FEW LACTOBACILLI ARE BACKED** up by as much documented scientific research as Reuteri, and this is stimulating interest in its use for clinical studies. By making the documentation available, BioGaia can help its partners to get interesting studies started.

“Based on the Italian example, we are in the process of rolling out this model on a global level,” says Jonas Weimer. “In recent years we have also searched for partners that have close relationships with specialists in the paediatric field. The agreement with Ferring is one such example.”

Ferring is a traditional pharmaceutical company based in Switzerland. Because BioGaia's probiotic products are not classified as drugs, this is a new situation for the company. Ferring has a decentralised organisation in which each national unit has a high degree of autonomy. The company focuses mainly on specialists and has not yet started targeting pharmacies and consumers the way other partners do to widen the



PHOTO: ULF LODIN

base for volume growth.

But having specialists on your side is critical, according to Jonas Weimer. Their good will and opinions are crucial for other distributors to succeed in selling the products.

Another company highlight-

ed by Jonas Weimer is EwoPharma, also a well established Swiss pharmaceutical company that instead uses a centralised approach. EwoPharma has an organisation that targets specialists, pharmacies and consumers.

“EwoPharma has surpassed expectations in several of its Eastern European markets,” says Jonas Weimer. “They were already selling a number of other OTC products in pharmacies, and our products fit well into the mix right from the start. My

# a fantastic job!



As newly appointed Vice President of Sales, Jonas Weimer supports and monitors sales of BioGaia's products in more than 40 countries worldwide.

The logotype and packages look the same when the products are sold under the BioGaia brand. But the language and tone are adapted to the conditions in each market. Here are examples from three different countries and partners.

hope, and theirs, is that we can add additional products to their portfolio.”

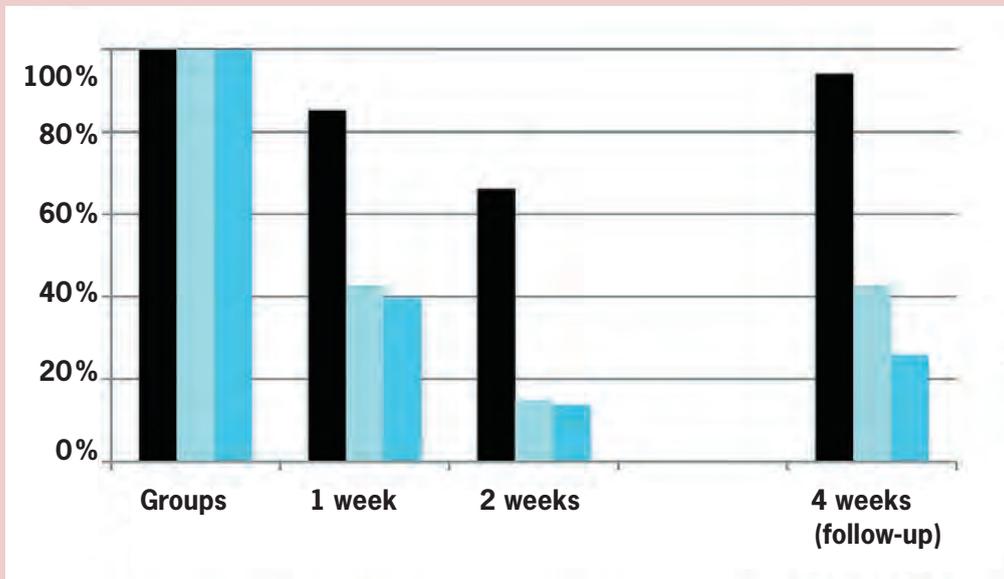
**A THIRD PARTNER THAT** has achieved rapid success is Ukrainian Delta Medical, a young company started by American Will Wickham after he spent a few years in Ukraine as a representative for a major pharmaceutical company.

Delta Medical serves the Ukrainian and Kazakhstani markets with a wide range of products that are sold via pharmacies, not only drugs but also dietary supplements and some medical equipment. In a short amount of time, they have achieved excellent sales of BioGaia's drops and will also

launch BioGaia's tablets in 2009.

“Delta is a young and dynamic company that has a very Western approach, for obvious reasons,” explains Weimer. “It has been interesting to follow its progress and I am certain that they will do very well with several of our products.”

Ferring, EwoPharma and Delta Medical all work with the BioGaia brand. All three have a firmly established relationship with health professionals, i.e. paediatricians and other medical specialists whose support is necessary to successfully launch the products to pharmacies and eventually also consumers. All according to BioGaia's marketing strategy. □



The study was performed on three groups. The first group received only placebo chewing gum (BLACK BAR). The second received one chewing gum containing *Lactobacillus reuteri* Prodentis and one with a placebo daily (LIGHT BLUE BAR), and the third group received two chewing gums containing Prodentis daily (BLUE BAR). The above chart shows that the number of bleeding sites was radically reduced in the groups taking Prodentis. In a follow-up two weeks after the study, bleeding had increased to a significantly lesser extent in the Prodentis groups than in the placebo group.

# Study strengthens oral health products

The latest study carried out by Professor Svante Twetman, an authority in the dental profession, confirms that *Lactobacillus reuteri* Prodentis has an inhibitory effect on inflammation of the gums, commonly known as gingivitis.

“We are delighted that the study so clearly strengthens our own and our partners’ argument about the benefits of probiotics for oral health,” says Anders Zachrisson, Vice President, R&D Oral Health at BioGaia.

**REUTERI IS OFTEN ASSOCIATED** with gut health and the immune system, but for several years we have known that Reuteri can also do a lot of good in the oral cavity. The first clinical studies showed good efficacy against *Streptococcus mutans*, the bacterium that causes dental caries. BioGaia also performed a study on treatment of bleeding gums, for which the medical term is gingivitis. Gingivitis involves inflamed gums that become sensitive and bleed easily.

Gingivitis is regarded as a disease and is more common than most people think. Figures from the USA show that inflamed gums affect more than

PHOTO: URBAN STRINDLÖW



Anders Zachrisson is responsible for research and development of oral health products.

50% of all people over the age of 30. If someone suffers from gingivitis, it is immediately visible when the dentist examines the patient. If the patient has no inflammation, the typical tooth examination we have all experienced should not cause any bleeding at all.

The human mouth microflora typically contains more than 500 different species, with millions of bacteria per ml of saliva. When an imbalance arises in this flora it can cause the immune system to react, resulting in some kind of inflammation. BioGaia’s oral health products contain a bacterial strain, *Lactobacillus reuteri* Pro-

dentis, which aside from acting directly on the pathogenic bacteria also has anti-inflammatory properties. As a result, Prodentis not only reduces the cause of the inflammation but also inhibits the inflammation process.

What makes this especially interesting is that research shows a clear link between inflammation, not least in the oral cavity, and cardiovascular disease.

**THE STUDY WAS CARRIED** out at the University of Copenhagen by Professor Svante Twetman and his research team at the Department of Cariology and Endodontics and the results were published in Acta Odontologica Scandinavica.

In the study, 42 randomly selected subjects with moderate gingivitis were divided into three groups. The first group received two placebo chewing gums daily, the second group one chewing gum containing *Lactobacillus reuteri* Prodentis and one with a placebo daily, and the third group two chewing gums containing Prodentis daily.

The evaluation was based on three parameters. First, they looked at any changes in the number of bleeding sites. They also examined the accumulation of fluid in gum pockets, another sign of inflammation, and the levels of so-called inflammatory mediators that trigger the inflammation process.

The number of bleeding sites decreased dramatically in both groups taking Prodentis chewing gum, by 85% for those taking one Prodentis chewing gum per day and by 86% for those taking two. (See diagram). The amount of bleeding in the placebo group also decreased, which is natural when taking part in a study. Everyone knows how carefully we brush our teeth before visiting the dentist!

**IN A FOLLOW-UP** two weeks after the study, bleeding in the placebo group was almost back to the starting level while that in the two Prodentis groups had increased to a significantly lesser extent.

In the Prodentis groups, the amount of fluid in the gum pockets decreased by 43% for those taking one chewing gum per day, and by 53% for those taking two per day. A significant decrease in inflammatory mediators was also found in those who had taken Prodentis.

“The importance of this stu-

dy is not only that it supports earlier findings that *L. reuteri* Prodentis can be effective in the treatment of gingivitis, but also that it points towards an extended mechanism of action bey-

“A study that so clearly confirms earlier results is a major asset”

ANDERS ZACHRISSON

ond the ability of fighting off pathogens,” comments Professor Svante Twetman. Our immune system involves mediators that promote inflammation when they are ‘turned on’. Our results suggest that these mediators can be down-regulated by *L. reuteri* Prodentis.”

**ANDERS ZACHRISSON AT BIOGAIA** is very satisfied with the results of Professor Twetman’s study, which he feels is of a high quality and opens up new angles of attack for the future.

“A study that so clearly confirms earlier results is a major asset and gives greater weight to our message to dentists and oral hygienists,” says Anders Zachrisson. “Due to the study’s wide scope, it provides indications of other areas for future research. The scientifically proven link between inflammation in the oral cavity and cardiovascular disease is another interesting line of study. We can also draw the conclusion that Prodentis not only eliminates the ‘bad’ bacteria, the pathogens, but that is also interacts directly with the immune system.”

**AND THERE ARE OTHER** implications that are of interest for further study, according to Anders. There is a known connection between gingivitis and periodontal disease, or tooth loss, and bad breath.

The latter of these is a widespread problem that has created an enormous market for mouth wash, an antiseptic fluid that kills harmful bacteria. The problem is that like antibiotics, they kill all microorganisms, good and bad alike. Many people are not aware that the good bacteria are needed to maintain oral health. □

# Communication on a wide front

As BioGaia's new Vice President of Marketing, Cristián Contreras sees it as his role to support the company's organisation and its partners around the world.

Marketing is the primary means for brand building. Although BioGaia's markets vary widely, the same message is communicated to everyone through the Internet, symposiums, research reports, printed materials, PR and the other tools at his disposal.

**HE TOOK UP DUTIES** as Vice President of Marketing at BioGaia the day before the start of the world paediatric congress, WCPGHAN, in Brazil. Activities of this type are a cornerstone of BioGaia's global marketing strategy, and in this case were extra important as Cristián has also retained his earlier position as Regional Director for all of Latin America.

"Our participation at the WCPGHAN event was a success and the symposium we hosted was very well received," according to Cristián Contreras. "There was a strong interest in BioGaia and our products. On the day after the symposium around 600 people visited our stand, out of a total of 2,500 participants at the conference, which I think shows that we did the right things for the right people in the right place."

At BioGaia's symposium, four independent researchers presented their results from clinical studies on Reuteri. Dr. F. Savino talked about his colic studies, Prof. Z. Weizman about the immune health of children, Dr. T. Abrahamsson about studies to reduce the risk of allergies and asthma and Dr. R. Francavilla about the results of studies on how Reuteri can contribute to more effective treatment of *Helicobacter Pylori* infection.

But because not everyone with an interest was at congress in Brazil, the symposium

was documented in the form of both articles and films that are now available on BioGaia's website. In this way it is possible to maximise the benefits of the event.

**PARTICIPATION IN CONFERENCES** and symposiums is something he plans to continue working with, in view of the major advantages for both local and global marke-

"In reality we serve as a support function for both our partners and our own sales organisation."

CRISTIÁN CONTRERAS

ting. In 2009 BioGaia will therefore take part in the annual conferences of the European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) and American Academy of Pediatrics (AAP), which is the world's largest with some 10,000 participants.

Cristián sees the marketing director's new role as being partly a result of BioGaia's ongoing efficiency optimisation. Among other things, it is aimed at achieving better coordination



Vice President of Marketing Cristián Contreras' most important task is to position the brand internationally.

between marketing and sales. It also reflects the marketing strategy now being used by the company, in which BioGaia takes explicit overall responsibility for marketing to health professionals, i.e. physicians, nurses and other healthcare personnel.

"In reality we function as a support organisation for both our partners around the world and for our own sales organisation," says Cristián Contreras. "We produce what they need, as long as it is consistent with our branding strategy. Here in Sweden I work very closely with Jonas Weimer, who took over as Director of Sales at the same time that I

became Vice President of Marketing."

**ACCORDING TO CRISTIÁN, HIS** most important task is to position the BioGaia brand internationally through the company's own activities and with the help of partners whose marketing is targeted toward healthcare professionals. In order to succeed and continue building on the BioGaia brand, it is necessary to provide all partners with the same marketing platform no matter where they operate. Certain local adaptations may be permitted, but the basic components are the same.

"We help our partners to communicate and need to main-

tain control over the message," emphasises Cristián. "We are already providing them with a lot of material, sometimes a bit more than they can handle when it comes to research reports and other scientific information. I have received feedback from doctors who are overwhelmed by information and are asking for more easily accessible, simple and inspiring materials from us, and this is obviously something we listen to."

"It's not enough to have a solid scientific foundation, good results from clinical trials and the best products," says Cristián Contreras. "The challenge is to make sure that everyone knows and understands that". □

# Capable of standing on its own

**Driven by growing interest from the market and a new strategic alliance with Bericap, one of the world's largest manufacturers of plastic closures, BioGaia decided to move LifeTop Cap to a separate subsidiary. Staffan Pålsson, BioGaia's former Director of Marketing, is co-owner and Managing Director of the new company that has been named CapAble.**

**TEN YEARS AGO** LifeTop Cap was essentially ready to be launched for the first time. It had been developed as a means for BioGaia to offer Reuteri as an ingredient in beverages where it was not possible to add the bacteria directly. Instead, LifeTop could store the Reuteri powder in the cap, separate from the beverage, to be released at the time of consumption. In this way it was also possible to extend the shelf life to up to 12 months.

But ten years ago, BioGaia's resources and market interest were more limited than today.

Staffan Pålsson was recruited in connection with the first launch attempt, but instead of devoting the following years to LifeTop he became BioGaia's Director of Marketing.

**THE EVENT THAT BROUGHT** a renewed focus to LifeTop was an agreement signed between BioGaia and Bericap in April 2008. Bericap is one of the world's leading makers of caps and other plastic closures, with production plants in 18 countries around the world. In its hunt for creative new packaging solutions, Bericap carefully searched the market and its evaluation found LifeTop Cap to be the most promising. It provided the best protection for sensitive ingredients, it was simple and cost-efficient to manufacture and it was well protected by patents.

Under the strategic alliance agreement, the two companies will collaborate in development, manufacturing, marketing and sales of LifeTop Cap.

LifeTop was initially developed for bottles with a specific cap format, but Bericap will develop new models adapted to other bottle types, not least those with a larger opening that are commonly used for beverages

like yoghurt drinks, juices, smoothies, etc.

"The trend toward larger caps is good for us as it gives us contact with whole new customer categories," says Staffan Pålsson. "The bigger caps provide more storage space and therefore also opportunities to use other ingredients and mixtures to create exciting new products."

**BERICAP'S ROLE IN THE** partnership is to develop new products, to manufacture them and to contribute to marketing and sales via its wide customer base. The company's forefront position in the beverage industry will be a valuable asset for CapAble in its dealings with new customer contacts. Bericap's strong brand serves as a guarantee for high quality and can open doors that would otherwise be closed to a small company from a faraway country.

"There's a lot happening in the beverage industry today and many producers are searching high and low for unique products to offer," says Staffan Pål-

PHOTO: ULF LODIN



**Staffan Pålsson is today co-owner and Managing Director of CapAble.**

sson. "Flavoured water is one such area, and there are many more where our solution can be an excellent tool for product developers. The safety of the product is critical, since no one wants to risk compromising their brand."

CapAble contributes knowledge about how to handle sensitive ingredients and how to pack, form and fill the caps.

Staffan Pålsson sees two possible business models for CapAble. In one case the customer delivers a finished ingredient packed in a special blister that is placed inside the cap.

In the second case, the customer sends a recipe for what they want in their caps and allows CapAble to provide that service as well. This is an excellent business opportunity, since BioGaia's experience of probiotics gives the company a high level of expertise in this area.

**IN THE FUTURE STAFFAN** wants CapAble to increase its capacity for ingredient services and sees major potential to develop finished solutions based on standard ingredients that can be offered to the market. Furthermore, there will be reason to develop and upgrade the production process to meet growing volumes and rising customer requirements. This production process consists of the combination of steps performed by CapAble when it packs the ingredients in blisters and attaches them to plastic caps made by Bericap.

"Since there is essentially no limit to what can be packed in a LifeTop Cap other than in terms of volume, we need to be alert to new beverage segments," concludes Staffan Pålsson. "Water has been dominant so far, but we are looking at fruit juices, dairy products, sport drinks, functional drinks and many other categories." □



**BioGaia's patented LifeTop Cap stores the Reuteri bacteria until the time of consumption.**

# From idea to finished product



PHOTO: URBAN STRINDLÖV

Kristina Silverio is Director of Product Development at BioGaia.

**Successful product development relies on a range of different talents. First, of course, you need a good concept or a solution to meet a customer request. This is followed by determined hands-on design work and innovative thinking to find smart solutions, and ends with careful testing and analysis. At least, that's the process used by BioGaia's product development team in Lund.**

**IT'S HARD TO TALK** about BioGaia's product development in any detail, since the most interesting concepts and projects currently occupying Kristina Silverio and her product development team at the Lund office are all top secret.

But we can describe the thought process and steps leading up to the development of new products. This is a highly prioritised area for BioGaia, and in the past two years the team has met with the executive management every two months to report on its progress and present new ideas.

BioGaia's product development activities can be divided into three categories.

**THE FIRST CONSISTS OF** new delivery systems, i.e. methods and technologies for distributing Reuteri to consumers, each of which must be adapted to a specific area of use and environment. Good examples of products in this category include BioGaia's straws, caps and oil drops, all of which have been designed to give the Reuteri bacteria an adequate shelf life and a suitable format for consumption.

"We always try to collaborate with researchers and take part in any clinical studies that are being conducted," says Kristina Silverio. When it comes to delivery systems, they need to be thoroughly tested in a clinical setting to ensure their quality and effectiveness.

"Ideas and suggestions for

new products can come from many different sources," she says. "Everyone in the company walks around thinking along these lines, and then suddenly someone remembers that they have seen something somewhere that could be useful."

**ANOTHER CATEGORY IS MADE** up of ideas from customers, sometimes in the form of requirements for a product to fit into their offering, and these are known as "customer-driven development projects".

In one recent example, the straw needed to be adapted for use with Nestlé's new Kid Essentials product for the US market, and the team was able to come up with a solution that everyone was happy with.

**THE THIRD CATEGORY IS** line extension, or the introduction of new products in the company's existing product lines. This can also be a matter of using additional delivery systems, such as offering the market oral health tablets in a bottle as an alternative to the blister-packed chewing gum.

The chewing gum and tablets are both flavoured, and attractive new taste varieties are another aspect of product development.

When it comes to the product content, the drivers and ideas come from the research sphere and Eamonn Connolly. These can include new strains and applications that require new delivery systems.

"We have a stronger focus and higher level of activity in product development today," says Kristina Silverio. "We are also working more closely with other parts of the company, mainly sales and quality assurance. This integrated process has many advantages and ensures that we're on the right track from the very start."

Once an idea has gained acceptance, it's time to start a feasibility study. If the study shows that the idea is worth moving forward with, a project is launched that will eventually culminate in a new product. That's the work model in a nutshell.

**KRISTINA SEES THE** in-house development lab at TwoPac, close to the product line, as a major advantage since they are now able to do more of their own testing.

She is satisfied with the combination of innovations, line extensions and customer-driven projects and is equally pleased with the mix of people on the team. Lotta Gröön is a hands-on person who gladly throws herself into new tasks, preferably in the development lab, while Elisabeth Sjöberg is a creative thinker and Christoffer Lundqvist has a very analytical mind. Whatever they're up to at the moment – it's strictly confidential.

"You'll have to wait and see. But we haven't been rolling our thumbs, I can tell you that much," she adds mysteriously. □

## Notices

### Extended partnership with Ferring

**THE SWISS PHARMACEUTICAL COMPANY** Ferring is one of BioGaia's most important partners and the collaboration, which started in the spring of 2006, has developed continuously over time. In the past year three additional agreements were signed that give Ferring exclusive rights to sell BioGaia's probiotic drops and tablets in a large number of countries.

"BioGaia's probiotic drops have been very well received by both patients and doctors," says Michel Pettigrew, COO of Ferring. "Now we can make the drops available to more patients in more countries and offer a new formulation in a tablet, which some patients will find convenient. We are very satisfied with the successful partnership with BioGaia."

On BioGaia's part, this means that the BioGaia brand will be launched on a large number of markets, an important step in the ambition to create a global brand for probiotic dietary supplements.

### Flying start for CapAble

**CAPABLE TOOK THE FIRST** wavering steps on its own two legs last autumn and by December had already signed its first license agreement giving US-based Mass Probiotics the right to use LifeTop Cap on its beverages in the USA and Canada. Mass Probiotics has developed two products based on LifeTop Cap that will be marked under the "Phd, Probiotic health daily" brand.

"This is a milestone for CapAble, since these are the first products with LifeTop™ Cap to be launched on the consumer market," comments Managing Director Staffan Pålsson.

The products will reach stores in the first quarter of 2009. An additional agreement was signed at the beginning of January with the Mexican water company Aqua Scandik. The company produces and distributes bottled water via local franchisees throughout Mexico, one of the world's largest beverage markets. Aqua Scandik will launch water in three different flavours with Reuteri under the Bio Scandik brand. The launch is expected to take place in early 2010.

#### BioGaia glossary

**Antibiotics:** Compounds that kill or inhibit the growth of microorganisms.

**Biotechnology:** Technical application of natural processes.

**Clinical research:** Research on humans.

**Functional Foods:** Food products that contain ingredients with documented health benefits.

**Gingivitis:** Inflammation of the gingival tissues, characterised by bleeding gums.

**Lactobacilli:** Lactic acid bacteria, i.e. bacteria that are able to ferment various types of sugar and convert them into lactic acid.

**Lactobacillus reuteri:** BioGaia's patented probiotic lactic acid bacterium with the brand name Reuteri®.

**Lactobacillus reuteri**

**Prodentis:** Name of a combination of Reuteri strains used in oral health products.

**Lactobacillus reuteri**

**Protectis:** Name of the Reuteri strain used in BioGaia's gut health and immuno-enhancing products.

**Nutrition:** The science or study that deals with food and nourishment, especially in humans.

**Periodontal disease:** Inflammation of the gums leading to tooth loss.

**Premature:** Born after a shorter than normal gestational period.

**Probiotics:** Live microorganisms which when given in adequate amounts confer a health benefit on the host.

# Network for basic research

From the Department of Microbiology at the Swedish University of Agricultural Sciences (SLU), Stefan Roos and Hans Jonsson report on their progress in the search for answers to how and why *Reuteri* works the way it does.

“When it comes to our research, there’s no guarantee that we’ll ever be able to say ‘Now we know everything!’ But we do know significantly more today than just a few years ago,” says Stefan Roos.

## INTEREST IN AND KNOWLEDGE

about lactic acid bacteria and probiotics is growing continuously and activities are underway at several levels. One such activity consists of clinical studies to show the effects of lactic acid bacteria on human health. At another level, researchers are studying the mechanisms behind the effects demonstrated in these clinical trials.

We know for certain that *Lactobacillus reuteri* occurs naturally in humans and animals. We also know that people carry a huge number of different bacteria, of which thousands of species have been identified in the intestine alone. These intestinal bacteria can be divided into around 10 large groups with similar characteristics, and every one of us has representa-

tives from all of these groups – or at least should have, to keep everything running smoothly. As a result, there is a wide variety in the species carried by every person.

The conclusion is that the bacterial flora of each individual can be very different but still function in basically the same way, at least as far as we can see.

Solving this puzzle is a task that is occupying more and more researchers, all seeking to identify what functions the bacteria have and how they are linked to different illnesses, or rather how they can prevent them.

It has been proven that lactic acid bacteria help to keep us healthy. But like so many other things related to the ecology of our bodies, we don’t yet know exactly how this works.

In the past year Stefan Roos and his colleagues at SLU have concentrated on developing models to better study how *Reuteri* reacts with its environment in the intestine. For that purpose they have cultivated intestinal cells and the idea is to add *Helicobacter pylori* to see how the cells are affected by the pathogen and what happens when different strains of *Reuteri* are introduced. With this model they can perform experiments that would not be possible in clinical studies.

**DUE TO THE COMPLEX** nature of this field, SLU cooperates with other disciplines, physiologists and other departments at Uppsala University.

The basic researchers studying *Reuteri* have a lot to gain by co-



How *Reuteri* helps to keep us healthy is one of the questions Stefan Roos is seeking answers to.

operating with each other. Over the years, BioGaia has functioned as the hub of the network, creating opportunities for them to meet and exchange experiences.

Stefan Roos mentions fellow researchers like Robert Britton at Michigan State University, Jens Walter in Nebraska and Jim Versalovic at Texas Children’s Center, the winner of BioGaia’s Ivan Casas Probiotics Award 2007, all of whom are at the

forefront and already have a good relationship with BioGaia today.

“It is our common hope that we will be able to gradually strengthen the independent network of basic researchers focusing on *Lactobacillus reuteri*. We believe this is an excellent way to reinforce our efforts. By systematically sharing knowledge, we can assert ourselves more effectively in competition with other research constellations,” believes Stefan Roos. □

## A clearer and more efficient organisation

**BioGaia has grown dramatically over the past five or six years, by an average of around 40% annually, which has resulted in a proportional increase in the number of orders, invoices, lab tests and just about everything else. They haven’t made it any easier for themselves by collaborating with more and more partners in even more countries. This growth is placing new demands on the company and in 2008 a reorganisation was carried out.**

**IN THE BEGINNING, WHEN** they were very few, everyone knew what everyone else did and it was possible to have a very informal organisation. As anyone who works for a small company knows, there’s no need for an organisational chart as long as the entire company can fit around the same lunch table.

“We have now reached a point where we need to ‘industrialise’ ourselves, and have therefore introduced an organisation that will maximise our efficiency and ability to meet customer require-

ments,” says Managing Director Peter Rothschild. “Among other things, we have added a middle management level to create a clearer division of responsibility. One example of this is that we have separated marketing and sales through the appointment of Jonas Weimer as Director of Sales, a position that didn’t exist before. Cristián Contreras has been appointed as Director of Marketing to replace Staffan Pålsson after he was made Managing Director of the newly formed CapAble.”

As Director of Sales, Jonas Weimer is responsible for overseeing and developing BioGaia’s sales around the world with the help of the regional managers. Cristián Contreras’ foremost task is to implant the BioGaia brand in the consciousness of health professionals, which is a top priority for the company.

The oral health products constitute more of a separate business area under the direction of Urban Strindlöv. He is backed up by Anders Zachrisson, recently returned from Japan, who will be responsible for R&D and marketing in this area.

The department that has expanded most in recent years is Quality and Regulatory under the supervision of Björn Lindman, which is no wonder considering that BioGaia works with complex products that are subject to extensive rules and regulations, which often vary from country to country. Quality assurance covers the process from ensuring a sufficient number of live bacteria in a batch to making sure the packages meet

all quality standards. Today these activities are handled by a team of six employees with placement in both Lund and Stockholm.

Virtually all areas have been reinforced and the entire reorganisation was carried out in stages during the past autumn.

“In 2008 we launched an efficiency improvement programme in which we are defining our work duties and routines in a whole new way,” says Peter Rothschild. “In the early days we were all prepared to roll up our sleeves and do a little of everything, many employees had several parallel areas of responsibility. As both the number of employees and the volume of work has grown, we need greater specialisation to manage our business efficiently. We can already see the effects in a better focus on the most important tasks.”

“But that doesn’t mean that we have lost flexibility and the will to help out wherever needed,” emphasises Peter Rothschild. “BioGaia is still a small and agile company.” □

# TwoPac ready for growing volumes

The packaging company TwoPac in Eslöv, Sweden, is 50% owned by BioGaia and the result of the search for smart and practical solutions to deliver Reuteri to consumers in a safe and sustainable way.

“It’s feels good to work with healthy products and I think we’ll see a real upswing when people start realising what probiotics are all about,” says the company’s Managing Director Per Hjalmarsson.



PHOTO: KJELL KARLSSON

**IDEAS HAVE NEVER BEEN** in short supply at BioGaia. At an early stage they saw the limitations in adding Reuteri to different food products. The company’s focus at that time was on Reuteri as an ingredient in functional foods.

The main concerns were the bacterium’s ability to survive in its new environment and how to guarantee that consumers would receive the promised dose.

Fairly soon, they began seeking solutions in which Reuteri could be delivered separately and then later mixed with juice, yoghurt, water or some other suitable medium at the time of consumption. This would significantly extend the product’s shelf life and avoid the need for refrigerated transports, which are not even available in many markets.

In the early 1990s a couple of interesting paths emerged that would later prove to be viable – a straw containing a dose of Reuteri for use together with Tetra Pak packages or similar package types, and a cap for different bottle formats with a dose that is released directly into the beverage.

It was in the hunt for someone with expert knowledge

of straws that Per Hjalmarsson came into the picture around ten years ago. After having recently left Tetra Pak, Per and his business partner Ingvar Kristensson had set up an organisation for manufacturing straws.

**THE FIRST STEP WAS** to start building a prototype machine that could insert Reuteri into a straw.

“It didn’t seem very complicated when we started, but it turned out to be more difficult than expected and the farther we came the more setbacks we encountered,” says Per. “Small details we weren’t aware of forced us to continuously raise the bar so that the product would meet BioGaia’s standards. And we still look for ways to make things better – as recently as last week we started using a new material that will radically improve product quality.”

“That’s basically how we work,” according to Per. TwoPac’s task is not only to package but also to continuously deal with any problems that arise along the way. This makes TwoPac an integral part of BioGaia’s product development with responsibility for technical and practical aspects.

One tangible sign of this close collaboration is that Bio-

Gaia’s development lab is now housed in TwoPac’s facility, only 15 minutes from Lund. The lab is used mainly by Lotta Gröön, who sees major advantages in working so close to production which creates a first-hand understanding of the opportunities and limitations. The path to developing a new product can be a very winding one.

**“MY BABY IS THE** oil drops, a project I started working on in the late 1990s,” she says. “It may be our most successful product today, but there were moments when the survival of the project

dangled by a thread.”

Not unusual in this line of business – in fact, Astra came close to giving up on Losec, which later became a blockbuster.

Today TwoPac has 10 employees who apply Reuteri in straws and caps and fill small bottles with Reuteri in oil. Due to the unique nature of this production, the company has been forced to design, build and improve the packaging machines used in the process, and has accumulated unmatched expertise in handling and packaging of lactobacilli along the way.

**Lotta Gröön, who develops products at BioGaia in Lund, is happy with the in-house development lab at TwoPac.**



The years of problem-solving and continuous development have given BioGaia and TwoPac a major lead on any competitors thinking along the same lines, believes Per. This lead is not easy to overcome, especially since both the straws and caps are protected by patents.

**ALTHOUGH THE PRODUCTION** volume has grown dramatically in recent years, keeping up has not been a problem. But what will happen if Nestlé’s new product using straws from TwoPac is a big hit or the collaboration with Bericap brings a tenfold increase in demand for caps with Reuteri?

“That’s a problem I would welcome, and one we already know how to solve,” laughs Per Hjalmarsson. “We just multiply. After all, we build our own equipment and control the entire process, so it’s simply a matter of placing new machines alongside the old ones. If needed, we can also increase the capacity of the machines. And if we grow out of our factory, there are bigger ones we can move to!”

Per Hjalmarsson is confident that volumes will increase, the only question is which product will grow fastest. □

# Exciting launch in the USA



Although it must be admitted that BioGaia has found it difficult to gain a foothold in the US market, Americans are now starting to understand the benefits of probiotics. Media interest is increasing rapidly and the attitude that all bacteria are evil is starting to change.

Expectations are therefore high following the launch of Boost Kid Essentials, a nutritionally complete drink for children.

**THE PROCESS LEADING UP** to the launch of Boost Kid Essentials in the USA has been a long one by BioGaia's standards, though other companies in the industry would probably consider it unusually fast.

The producer behind Boost is Nestlé, the world's largest food company. It all started with the agreement signed between BioGaia and Novartis Medical Nutrition in 2006 to use Reuteri as an ingredient in Novartis' nutrition products, including Meritene ProVital.

In 2008 Novartis Medical Nutrition was taken over by Nestlé and is now part of its Healthcare Nutrition division. Already during the Novartis period, there were discussions about the potential to develop a complete nutrition product for children up to the age of 13 containing Reuteri as a key ingredient.

The aspect that makes Kid Essentials especially interesting from BioGaia's perspective is that Nestlé has also chosen to use LifeTop Straw, meaning that the bacteria will not have to be mixed into the drink from the start. A successful launch on the US market would naturally create fantastic exposure for LifeTop Straw.

**NIGEL TITFORD IS RESPONSIBLE** for the Nestlé partnership and is BioGaia's Regional Director for the USA and Canada, stationed in Raleigh, North Carolina. Kid Essentials is intended for children who for various reasons

need to supplement their daily diet, perhaps because they are growing slowly or are very active and need extra nutrition. The main reason for using Reuteri in the product is that it strengthens the immune system.

"The launch started in 2008 and the first products were delivered to retailers in the autumn," says Nigel Titford. "The product is distributed nationally through drug and mass retail

channels. Two of the major drug store chains, Walgreens and CVS, are stocking the product, which will ensure good distribution throughout the country."



**Nigel Titford, Regional Director, USA and Canada.**

**"IT WILL BE EXCITING** to follow developments

during the year," feels Nigel Titford. "Sales have been promoted through TV commercials in the first few weeks of 2009 and interest in probiotics is growing fast. Every day, new articles are appearing in the newspapers. In January there was a very positive article in the Wall Street Journal where it said that the number of retail products containing probiotics had risen from 35 to 231 in just three years."

"We won't know how the product has been received until the end of the year, and in the meantime we've been a bit concerned that the financial crisis and economic downturn will make the launch especially difficult. On the other hand, this is not a luxury product, but a serious nutritional supplement for children with health problems or special needs." □

## Notice

### BioGaia in the Wall Street Journal

**IT HAS BEEN DIFFICULT** to introduce "healthy bacteria" on the US market due to a traditional aversion to bacteria in any form, whether good or bad.

However, attitudes are changing as more and more people discover the benefits of probiotics. In a major article in January this year, the respected Wall Street Journal took an in-depth look at players in the probiotics market and their documented research. BioGaia was mentioned by name and the article referred among other things to Reuteri's positive effects on children with colic.



After all these years, I can answer three out of four questions right away," says Lotta Johansson.



PHOTO: ULF LODIN

# Lotta is the customers' best friend

**Lotta Johansson's job is to solve both big and small problems for BioGaia's customers. With a growing number of products and customers in more than 40 countries worldwide, she has few idle moments.**

**LOTTA JOHANSSON HAS BEEN** providing customer support at BioGaia for more than ten years. This makes her one of the BioGaia's veterans, and her workload has grown in pace with the company

– new products, larger volumes and more customers.

Over the years the customers have turned to Lotta an increasing number of questions of every conceivable type. In order to

handle this rising volume she has built up an "answer bank" that enables her to give fast answers to questions the customers find difficult and time-consuming.

The questions she receives are

very widely in nature and are concerned with everything from product registration and packaging to branding issues and research results.

"I can give a direct answer to

around 70 per cent of all inquiries I receive, since these have often come up earlier," explains Lotta Johansson. "For the rest I have to search for an answer, usually from someone in the company. For especially complicated questions, we sometimes end up starting an internal project since this is probably an area where we will need good answers in the future."

## **SPEEDY ANSWERS ARE SOMETHING**

Lotta knows the customers appreciate. Because of the complex nature of the products, convoluted regulations and varying market conditions, the customers rely on fast response times so that they can move forward in their work. And by fast, Lotta means within a few minutes! Today most contact is made via email, although the telephone is still used to some extent.

"One major advantage of my job is the chance to build personal relationships with many of the customers I have regular contact with," says Lotta. "These relationships are an important factor that are valuable for the entire company and make my job a lot more fun!"

In keeping with BioGaia's commitment to customer satisfaction, customer support is a top priority for the company's management. "Many of these questions could be answered by the regional directors," says Lotta, "but by gathering everything in one place we can maintain higher quality and accessibility." Lotta's services are also a hot commodity inside the company, where information from her "answer bank" is often needed already at the sell-in stage to new customers. □

## Probiotics course for healthcare staff

### **FOR THE FOURTH CONSECUTIVE**

year, an IPULS course was held to teach physicians and other healthcare professionals more about probiotics. BioGaia has planned and organised the content which has then been reviewed and certified by IPULS, the Institute for the Professional Development of Physicians in Sweden.

56 participants from different vocational categories took part in the course, which was car-

ried out over a full day in Linköping, Sweden. The featured lecturers were Professor Bengt Björkstén from the Karolinska Institute, Professor Johan Söderholm from Linköping University Faculty of Health Sciences, neonatologist Thomas Abrahamsson from Linköping University Hospital and Associate Professor Maria Jenmalm, also from Linköping University Faculty of Health Sciences. Professor Karin Fälth-Magnusson

gave the introduction and acted as moderator during the day.

BioGaia was represented by Salme Portinson, dietician, and Karin Diderot, who is responsible for clinical trials.

"The participants felt it was a good course and a valuable learning experience," says Karin Diderot. "They especially appreciated all the new knowledge about probiotics and look forward to following future research in this area." □



**Karin Diderot is responsible for clinical trials**

## Return address

BIOGAIA AB  
BOX 3242  
S-103 64 STOCKHOLM  
SWEDEN

## Karlsson's column

# Smart work!

**MOST OF US DREAM** of being freed from all our financial worries and being able to buy or do whatever we want. There are really only two ways to achieve that – either trust your luck or be prepared to work hard. The tactic favoured by most Swedes is to buy a lottery ticket, and it's not such a bad idea considering that this method creates the most millionaires in Sweden every year – far more than the number who toil for their millions or make fast money in the stock market. In fact, last's year stock market collapse sent quite a few millionaires back to square one.

For those of us who aren't lucky enough to win the lottery, work is pretty much all that's left. Once you've accepted that fact, there are two main categories to choose from – using your head or using your muscles, quality vs. quantity. Or to put it another way – either working smart or working a lot. I think you get my drift.

It's only natural to prefer the smart solution. Most of us are lazy by nature and the idea of getting a huge payoff from a small (but smart) amount of effort is enormously appealing. Just imagine coming up with a really smart discovery or invention that solves one of mankind's universal problems, at a reasonable cost, and can be sold all over the world!

**AFTER HAVING DEVOTED SOME** time to describing the company and its business I've come to the conclusion that where work is concerned, the people at BioGaia are smarter than most. They have to be, as long as their goal is to be world's leading probiotics company, and as long as they have fewer employees than their largest customers have reception desk staff or sales reps in a single country.

What's more, BioGaia's employees handle everything from coordinating research in the probiotics area to marketing, sales, production, product development and distribution of an impressive number of products to more than 20 partners that are currently active in 42 countries. This means that BioGaia's products are sold in as many countries as there are employees in the entire company!

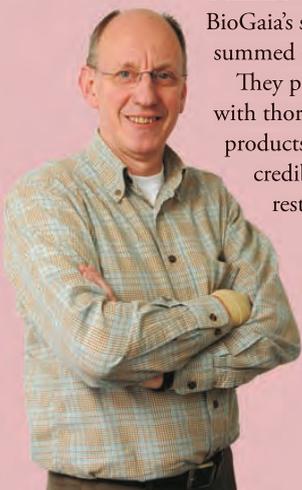
Managing that balancing act, and doing it profitably nowadays, demands more than long hours and hard work.

I think I've figured out the secret behind BioGaia's smart, but simple, concept. It can be summed up in a single sentence.

They provide their partners around the world with thorough scientific documentation, good products, effective marketing support and a credible brand, and then let them do the rest!

I know for a fact that they're working hard to capitalise even more on those smart ideas, and today this is also visible on the bottom line.

**KJELL KARLSSON**



Deputy Managing Director Jan Annwall sees the curves pointing in the right direction

# We will continue improving the profit margin

**IN RECENT YEARS BIOGAIA'S** financial reports have offered increasingly pleasant reading for the shareholders, who can now also look forward to a dividend for the first time. Jan Annwall, Deputy Managing Director and CFO, explains how this is possible.

**Everywhere you turn, people are talking about financial crisis and recession. How well equipped are you for the tougher times that may lie ahead?**

– We haven't been noticeably affected by the crisis and as far into the future that we can see, it looks very bright. BioGaia works in a parapharmaceutical industry that typically weathers market downcycles fairly well. These days many people are worrying about the state of the economy, and that means a lot of upset stomachs. Our products may not be able to solve the financial crisis, but indigestion is something we can deal with!

From a purely financial perspective, we have a very strong balance sheet and no need for external financing.

**BioGaia has shown very strong development in the past few years. Net sales in 2008 rose by 36% and profit before tax by a full 125% – how do you explain those figures?**

– We have essentially the same gross margins as earlier, and have succeeded in keeping our costs under control despite rapid growth. In the span of three years our net sales per employee have risen from SEK 1.8 million to SEK 3.5 million. In other words, a higher share of gross profit has become pure profit.

**Is it possible to keep up this pace in the future?**

– In 2008 year we had a profit margin (consisting of profit before tax in relation to sales) of 17% and our goal is to reach 25%

within a period of 3–5 years.

With continued growth and effective cost control, I'm convinced we will meet that target.

**In the year-end report the Board proposed a dividend to the shareholders. How does that feel after all these years?**

– It feels wonderful! We have taken the final step on our journey from a promising little research start-up to a biotechnology company with sales of proprietary products in more than 40 countries that generates healthy profits and pays shareholder dividends.

**What would you say was the most important event of 2008?**

– I can't really point out any specific event. The most important thing is that we have good momentum throughout the entire process from research to sales; that our business model works. And this is just the beginning! □

Annual report 2008

**BioGaia®**

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## Administration report

*Figures in brackets refer to the previous year*

The Board of Directors and Managing Director of BioGaia AB (publ), corporate identification number 556380-8723, hereby submit their annual report and consolidated accounts for the financial year 2008. The financial statements were approved for publication by the Board of the Parent Company on 19 February 2009.

### BioGaia AB

#### The Company

BioGaia is a biotechnology 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* (Reuteri) which has health-enhancing effects. BioGaia has also developed unique delivery systems, such as probiotic-containing straws and caps that make it possible to create probiotic products with a long shelf life.

BioGaia has 42 employees, of whom 17 are based in Stockholm, 18 in Lund, 3 in Raleigh, USA, and 4 in Hiroshima, Japan.

The class B share of the Parent Company BioGaia AB is quoted on the Small Cap list of the NASDAQ OMX Nordic Exchange Stockholm.

#### Business model

BioGaia's revenue is derived mainly from the sale of finished consumer products (tablets, drops and oral health products) to distributors, but also revenue from component products such as Reuteri cultures, straws and caps.

BioGaia's products are sold through nutrition, food, natural health and pharmaceutical companies in some 40 countries worldwide.

In Sweden, BioGaia's products are sold under the brands Semper Magdroppar and Gum PerioBalance chewing gum in pharmacies, as well as Semper whole grain cereal and infant formula with active culture and Probiomax gut health tablets in grocery stores.

BioGaia holds patents for the use of Reuteri and certain delivery systems in all major markets.

### The BioGaia brand

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

The majority of BioGaia's finished consumer products are sold to distributors, which then sell the products under their own brand names. For these products, the BioGaia brand is shown on the consumer package since BioGaia is both the manufacturer and licensor.

At the end of 2005 BioGaia launched its own consumer brand and today has many distributors in a large number of countries that sell finished products under the BioGaia brand. One central part of BioGaia's strategy is to increase the share of sales consisting of products sold under the BioGaia brand. In 2008, 20 % of finished consumer product sales were sold under the BioGaia brand.

### Research and clinical studies

BioGaia's research is focused on selection of different probiotics for gut health, the immune system and oral health. Extensive clinical studies have shown that BioGaia's various probiotic products:

- stimulate the human immune system,
- protect against GI tract and respiratory tract infections,
- alleviate the side effects of antibiotic treatment,
- reduce the level of *H. pylori* infection,
- relieve infantile colic,
- reduce the risk of infection and improve gut function in pre-term infants,
- reduce gum inflammation, plaque and the risk for dental caries

### Key events in 2008

#### Sales agreements

##### Global agreement with Sunstar

Sunstar Suisse SA had earlier an option for a distribution agreement covering a large number of countries. At the beginning of January 2008, Sunstar exercised this option and signed an additional agreement with BioGaia that gives Sunstar exclusive rights to distribute BioGaia's probiotic oral health products in more than 100 countries.

The products will be sold under Sunstar's GUM PerioBalance brand. The launch will be carried out within a 2-year period. A trial launch in the USA was carried out in the fourth quarter of 2008.

Sunstar already distributes BioGaia's oral health products in Germany, France, Italy, Spain, Sweden and Norway.

##### Agreement with NeoCare

In April BioGaia signed an agreement with the Belgium pharmaceutical company NeoCare, giving NeoCare the right to sell BioGaia's Probiotic drops and tablets in Belgium and Luxembourg. The products will be sold under BioGaia's brand.

##### Agreement with BERICAP

In April BioGaia entered into a global collaborative agreement with Bericap Sarl, a subsidiary of the German Bericap Group and one of the world's largest manufacturers of plastic caps and other packaging closures.

Under the agreement, the two companies will collaborate in development, manufacturing, marketing and sales of BioGaia's patented beverage cap, LifeTop Cap, which has been developed to protect sensitive ingredients such as probiotics from the effects of moisture, heat and light in PET bottles.

The Bericap Group will market LifeTop Cap to its customers worldwide, manufacture the plastic details and develop new varieties for different bottle types. BioGaia will sell and market the product and, through its 50%-owned company TwoPac, handle the ingredients and manufacture the aluminium blister that protects the ingredients and is placed in the LifeTop Cap.

##### Agreement with Verman for Russia

In June BioGaia signed an additional agreement with BioGaia's Finnish partner, Verman OY, for the Russian market. Under the agreement, Verman has been granted a non-exclusive right to distribute and sell BioGaia's Probiotic tablets and drops on the Russian market under Verman's own Rela brand. Today Rela is the top-selling probiotic brand in the Finnish pharmacy market. In autumn 2008 Verman opened its own office in Moscow from which it manages the business activities in Russia.

##### Agreement with Kavli Holding in Norway

BioGaia has signed an exclusive license agreement with Kavli Holding AS in Norway. The agreement gives Kavli the right to use BioGaia's patented Reuteri in dairy products in Norway.

In September Kavli's subsidiary Q-Mejerierna launched BioQ yoghurt drink on the Norwegian market.

#### Agreement with Nestlé Nutrition

In August BioGaia AB signed a global license agreement with Nestlé Nutrition, giving Nestlé the right to use Reuteri in infant and follow on formulas.

BioGaia's patented probiotic Reuteri is already used in formula products in some European and Asian countries. The new agreement with Nestlé will cover the world market, excluding Japan and Korea. The first product is planned to be launched in the second half of 2009.

#### Agreement with AllergyCare AG

In July BioGaia signed a distribution agreement with the Swiss-based pharmaceutical company AllergyCare AG. The agreement gives AllergyCare exclusive rights to sell BioGaia's Probiotic drops and tablets in Switzerland and Liechtenstein. The products will be sold under the BioGaia brand.

#### Three agreements with Ferring

In February BioGaia signed an agreement with Ferring Pharmaceuticals in Switzerland, giving Ferring exclusive rights to sell BioGaia's Probiotic drops in Australia, New Zealand and Israel, and BioGaia's Probiotic tablets in Brazil, Egypt, Greece, Iran, Jordan, Canada, Lebanon, Mexico, Saudi Arabia and Syria.

In July BioGaia extended its agreement with Ferring Pharmaceuticals to cover essentially all of Latin America. The agreement gives Ferring exclusive rights to sell BioGaia's Probiotic tablets and drops in 10 additional countries: Colombia, Costa Rica, Nicaragua, Panama, the Dominican Republic, Guatemala, Honduras, Cuba, El Salvador and Trinidad-Tobago. The products will be sold under the BioGaia brand.

In early December BioGaia extended its collaboration with Ferring Pharmaceuticals giving Ferring exclusive rights to sell BioGaia's Probiotic drops in Ireland and BioGaia's Probiotic drops and tablets in Bahrain, Yemen, Qatar, Oman, Kuwait and United Arab Emirates. Ferring already sells BioGaia's Probiotic drops in Spain, Portugal, the Czech Republic, Jordan, Mexico and Lebanon.

Ferring has launched the drops in Spain, Portugal, the Czech Republic, Canada, Jordan and Mexico. Ferring also has exclusive rights to sell BioGaia's Probiotic drops in Brazil, Egypt, Greece, Iran, Lebanon, Saudi Arabia and Syria.

#### Expanded collaboration in Ukraine and Kazakhstan

In November BioGaia signed an agreement with Delta Medical Promotions A.G. giving the company exclusive rights to sell BioGaia's Probiotic drops in Kazakhstan and BioGaia's Probiotic tablets in Ukraine and Kazakhstan. The Probiotic drops have already been launched in Ukraine by Delta Medical. The products will be sold under the BioGaia brand.

#### Start of LifeTop Straw sales to China

In December BioGaia started delivery of products according to the development and sales agreement that was signed 2003 with one of China's largest dairies. The delivery concerns BioGaia's patented straw, LifeTop Straw containing *Lactobacillus acidophilus*.

#### Launches in 2008

- Recalcine, BioGaia's Probiotic drops and tablets in Chile
- Q-mejerierna, yoghurt drink with Reuteri in Norway
- Nestlé, the nutritional beverage "Boost Kid Essentials" for children with BioGaia's Probiotic straw in the USA
- Ferring, BioGaia's Probiotic drops in Jordan, Mexico and Lebanon
- Delta Medical, BioGaia's Probiotic drops in Ukraine
- Ewopharma, BioGaia's Probiotic drops and tablets in Hungary, Bulgaria and Slovenia
- Ewopharma, BioGaia's Probiotic tablets in the Czech Republic
- Sunstar – oral health products in the UK and in the USA
- Semper – Infant formula with Reuteri in Sweden

#### Agreement with Forest terminated

Forest Laboratories has previously had the right to sell BioGaia's Probiotic drops in the UK and Ireland. Due to unsatisfactory sales performance, the agreement was terminated and BioGaia has received compensation for lost sales. BioGaia has already signed a new agreement for Ireland with Ferring (see above) and is working to find a new distributor for the UK

#### Other events in 2008

##### BioGaia invests in LifeTop Cap in new subsidiary

BioGaia is intensifying the focus on its patented LifeTop Cap technology through the newly formed subsidiary CapAble AB.

CapAble, based in Stockholm, will work primarily with marketing and sales of LifeTop Cap and, in collaboration with BERICAP, will be responsible for further development of a full range of products in this area.

BioGaia's former Marketing Director Staffan Pålsson owns just under 10% of the company and is its President.

#### New study confirms that BioGaia's oral health products counteract gingivitis

A new study confirms that chewing gum from BioGaia containing *Lactobacillus reuteri* Prodentis reduces gingivitis. The study also shows that the *Lactobacillus reuteri* Prodentis can interact directly with the human immune system to reduce inflammation

The study, published by Acta Odontologica Scandinavica, was performed by Professor Svante Twetman and his team in the Department of Cariology and Endodontics at the University of Copenhagen in Denmark.

#### Annual General Meeting of BioGaia

The Annual General Meeting of BioGaia AB on 22 April 2008 unanimously passed the following resolutions, among others:

- that no dividend would be paid to the shareholders
- re-election of Board members Jan Annwall, Stefan Elving, Thomas Flinck, David Dangoor, Inger Holmström and Paula Zeilon
- election of Jörgen Thorball
- re-election of David Dangoor as Board Chairman
- principles for remuneration and other terms of employment for senior executives in accordance with the Board's proposal
- regarding the Nominating Committee in accordance with the proposal in the notice of AGM.

#### Events after the end of the year

##### Agreement with Aqua Scandik

In January 2009 CapAble signed an agreement with the Mexican water company Aqua Scandik granting them the rights to use LifeTop Cap with Reuteri. Aqua Scandik will launch water with Reuteri in three different flavours. The launch is expected to take place in early 2010.

##### Japanese venture

The cost of the Japanese venture in 2008 was SEK 10.6 million (8.4), which is higher than anticipated.

BioGaia has decided to shift the focus from Functional Foods products in grocery stores to sales of drops and straws through distributors to pharmacies and drugstores. In this way the Japanese business model will be adapted to that which is successfully used in other markets.

If the launches in the drugstore chains are successful, costs in the Japanese venture will decrease significantly in the second quarter and the Japanese subsidiary will achieve cost coverage in the second half of 2009. If the launches are not successful, activities in Japan will be significantly curtailed.

#### Financial performance in 2008

Consolidated net sales amounted to SEK 145.2 million (106.6), an increase of 36% compared to the previous year. BioGaia's Probiotic drops in Europe accounted for most of the period's sales growth.

Gross profit reached SEK 97.0 million (71.5), an improvement of SEK 25.5 million over the previous year.

Selling expenses rose by SEK 5.9 million compared to the previous year, which is mainly explained by increased costs in Japan, higher personnel costs and increased costs for the registration of new products.

R&D expenses amounted to SEK 23 million (17.9), which is equal to 19% (18%) of total operating expenses. The higher R&D expenses are due to an increased level of activity in clinical studies that began during the year, as well as higher laboratory and patent expenses. The amortisation component of R&D expenses amounted to SEK 3.4 million (3.4). Investments in capitalised development expenses totalled SEK 0 (0). BioGaia does not capitalise patent costs.

Operating profit was SEK 25.8 million (8.9), an improvement of SEK 16.9 million compared to the previous year.

Financial expenses include an unrealised foreign exchange loss of SEK 4.5 million on forward exchange contracts in EUR. The company has entered into forward exchange contracts for EUR 4.6 million at an average exchange rate of SEK 9.84. All forward exchange contracts will mature in 2009. The true exchange rate loss or gain depends upon the exchange rate on the contracts' due dates. If the EUR exchange rate on the due date is lower/higher than on 31 December 2008 (10.94), an exchange rate gain/loss will be reported under 2009.

Profit before tax was SEK 24.0 million (10.7).

Profit after tax was SEK 36.1 million (19.7), an improvement of SEK 16.4 million compared to the previous year.

The Group pays no tax due to the existence of a cumulative loss carryforward. The total loss carryforward at 31 December 2008 was SEK 97.9 million, of which SEK 80.2 million was attributable to the Swedish companies.

At 31 December 2008 BioGaia recognised a deferred tax asset of SEK 21.1 million, resulting in a tax benefit of SEK 12.1 million in the income statement. The company has shown a profit since 2006 and is thus regarded as having reached a sustainable profit level. In view of this, BioGaia has recognised the entire deferred tax asset, which is attributable to the Swedish companies, at 31 December 2008.

Earnings per share were SEK 2.10 (1.14).

A total of 128,950 warrants have been subscribed for in BioGaia's ongoing incentive scheme. Since the current share price is significantly lower than the subscription price, the outstanding options have no dilutive effect.

The Group's cash and cash equivalents at 31 December 2008 totalled SEK 58.1 million (43.0). Cash flow for the year was SEK 14.3 million (3.3), an improvement of SEK 11.0 million compared to the previous year.

The company has paid a conditional shareholder contribution of SEK 2.0 million and converted an advance payment of SEK 0.6 million into a conditional shareholder contribution to the associated company TwoPac AB.

Cash flow from operating activities before change in working capital was SEK 32.4 million (15.8), up by SEK 16.6 million over the previous year. The increase in working capital was SEK 13.2 million and is mainly attributable to inventories.

Consolidated equity amounted to SEK 132.4 million (94.9). The Group's equity/assets ratio was 86% (86%).

Capital expenditure on property, plant and equipment totalled SEK 2.4 million (2.0).

The Parent Company reported net sales of SEK 143.6 million (107.0) and a profit after net financial items of SEK 17.8 million (9.0). The result includes a write-down of receivables from the Japanese subsidiary of SEK 13.5 million as well as a write-down of shares in the Japanese subsidiary of SEK 0.6 million. Profit after tax was SEK 29.5 million (18.0). Cash flow in the Parent Company was SEK 12.8 million. Cash flow from investing activities includes a loan of SEK 10.6 million (7.8) to the Japanese subsidiary.

### Research and development activities

BioGaia has an extensive research network and collaborates with numerous universities and hospitals around the world, such as the Swedish University of Agricultural Sciences in Uppsala, Sweden, the Karolinska Institute in Stockholm, Texas Children's Hospital in the USA, University Hospital of Bari, Italy, and University Hospital of Turin, Italy. Current areas of research include studies related to mapping of the Reuteri genome. In addition, the Company is engaged in research on new probiotic lactic acid bacteria and is conducting clinical trials on its products (see above on gingivitis study). In 2008 a number of new studies were started, for example in the gastrointestinal area. The first clinical safety study on BioGaia's new anti-inflammatory Reuteri strain was completed without any safety issues.

The year's R&D expenses amounted to SEK 23.0 million (17.9), which is equal 19% (18%) of total operating expenses. The amortisation component of research and development expenses amounted to SEK 3.4 million (3.4). Investments in capitalised development expenses totalled SEK 0 million (0). For more information see Note 14.

### Environmental information

BioGaia contributes to positive development in the environmental area through its commitment to ecology. The microorganisms used by the Company are wholly natural and occur normally in the human body. The modes of action of these microorganisms are based entirely on ecological-biological principles. To stay healthy, the human body must maintain equilibrium between its various systems. An imbalance quickly results in diminished ability of the immune defence to prevent and fight disease. This ecological-biological approach is at the very core of BioGaia's operations.

BioGaia has no production of its own, and therefore has a limited influence on the manufacturing methods that are used. Furthermore, the Company's products are sensitive to temperature, moisture and oxygen, which places special demands on their packaging materials. Within these given limitations, BioGaia strives to ensure the use of materials and manufacturing methods that create a minimum of negative impact on the environment.

In 2008 BioGaia decided to review the climate impact of its operations. These activities were started to a limited extent in 2008 and will continue in 2009. The company conducts no operations that are subject to reporting requirements.

### Business risks and uncertainties

BioGaia's operations are associated with both risks and opportunities of various types. Certain risks are of a general nature, while others are more specific to the Company. The following section is not a complete risk analysis, but an indication of the factors of significance for future development.

#### Japanese venture

The previously chosen business model in Japan was associated with significant cost risk. Measures have now been taken to change the business model. On the balance sheet date, assets in the Japanese subsidiary were reported at SEK 3.5 million in the Group. The company's assessment is that there was no indication of impairment of these assets on the balance sheet date.

#### Participations in and receivable from the associated company

The shares in the associated company and the receivable from the associated company amount to a total of SEK 12.3 million (10.0) in the Group and in the

Parent Company. The associated company TwoPac AB's primary operations are development of production machinery and manufacturing of BioGaia's probiotic drops and straws and LifeTop Cap on behalf of BioGaia. The current recession is no indication of a decrease in value, since demand for health products is normally not strongly affected by changes in the general business climate. Furthermore, no other indications of a decrease in value are deemed to exist. BioGaia's assessment is that the cash flow from TwoPac will generate good profitability, for which reason no impairment loss was recognised on the balance sheet date. Should the investment in TwoPac fail in full or in part, BioGaia may be forced to recognise an impairment loss on all or parts of the holding in and receivables from the associated company. A total impairment loss would correspond to 9.3% of equity in the Group and 9.8% of equity in the Parent Company.

#### Intangible assets

In the previous year's financial statements, capitalized costs for the LifeTop Cap project were described as an uncertain factor. In the autumn of 2008 a new subsidiary was formed to intensify the focus on LifeTop Cap. Two new agreements were signed in December and January, for which reason no uncertainty relating to LifeTop Cap is considered to exist.

#### Dependency on Reuteri

Most of the products are based on the positive effects produced by the use of *Lactobacillus reuteri*. This creates advantages for the Company, such as joint research and development for the various products. However, it can be risky to rely on a single species of lactobacilli. To avoid this risk, the Company has developed new probiotic strains from other lactobacillus families that will be part of the future product range if these efforts are successful.

#### Products on the market

BioGaia does not sell directly to end-users, but instead sells the products primarily to major companies which then market them to consumers. That means that the Company is dependent on customer confidence in the products and their willingness to invest the resources necessary to attain profitability. In order to reduce this dependency, BioGaia's own brand was launched at the end of 2005. Today, there are several customers that sell products wholly or partly under the BioGaia brand.

#### Research and development

BioGaia invests considerable sums in research, clinical studies and product development with the aim of developing effective and profitable products. Even after thorough pilot studies, there is always a risk that a project will be wholly or partly unsuccessful or that the finished concept will not be attractive to potential customers.

#### Patents

BioGaia's business activities are based on a large number of patents. The Company works continuously to strengthen its patents by protecting the use of Reuteri for various indications.

There is always a risk for patent infringement, but the Company is not engaged in any patent disputes at present. The Company continuously monitors the market to avoid infringement of patent rights, but there are no guarantees that future patent infringements will not cause the Company damage.

#### Personnel

The Company's most valuable resource is its employees. Its operations are dependent on their expertise, and consequently, it is vital for the Company's development to attract and retain skilled and motivated employees in the future.

#### Product liability insurance

BioGaia has product liability insurance that covers up to SEK 60 million per damage claim and up to a total of SEK 120 million annually. The insurance is valid worldwide.

### 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 invested assets. The overall objective of financial risk management is to minimise the risk or negative effects on the Group's earnings. Consequently, the Group's financial investment must have a low risk profile.

The Group's assessed risk exposure and related risk management are described below.

#### Currency risk

BioGaia has revenue and expenses primarily in SEK, EUR, USD and DKK. In 2008 the Company had a cash flow surplus of approximately EUR 6,600,000 (4,200,000), a cash flow deficit of USD 440,000 (475,000) and a cash flow surplus of DKK 3,400,000 (4,700,000). Growth in sales has also led to increased currency

risk, for which reason the company has taken currency hedges in EUR. At 31 December 2008 the Company had forward exchange contracts for a total of EUR 4.6 million at an average exchange rate of SEK 9.84. All foreign exchange contracts mature in 2009. For more information see Note 26.

#### Interest rate risk

The Group has no interest rate risk.

#### Credit risk

BioGaia's credit risks are attached to trade receivables and the loan to the associated company. When signing agreements with new customers, BioGaia always carries out an assessment of the customer's financial position. For existing customers credit limits are assigned in order to minimise risks. The loan to the associated company TwoPac AB has been used to develop machinery for production of delivery systems (BioGaia's probiotic straw and LifeTop Cap). TwoPac's primary operations are development of production equipment and manufacturing of BioGaia's probiotic drops, straws and LifeTop Cap on behalf of BioGaia. The Company's assessment is that TwoPac will show good profitability, and that the loan therefore entails no credit risk.

#### Liquidity risk

Excess liquidity is normally invested at bank interest rates or in fixed-income securities with a high credit rating.

#### Cash flow risk

In 2008 BioGaia had a positive cash flow from operating activities before changes in working capital, amounting to SEK 32.4 million (15.8). After changes in working capital, cash flow was SEK 19.2 million (5.1). Total cash flow for the year was SEK 14.4 million (3.3). Because cash and cash equivalents at 31 December 2008 amounted to SEK 58.1 million (43.0) and cash flow is positive, no infusion of capital is necessary.

#### Price risk

BioGaia buys most of its goods on the international market from several alternative suppliers, which minimises the Company's price risk.

### Personnel

The number of employees on 31 December 2008 was 42 (37), consisting of 25 women and 17 men. The management team includes 8 men and 2 women. In 2008, five new employees were hired and no one left the Company voluntarily.

BioGaia's incentive scheme for the employees

In June 2007 BioGaia carried out the warrant program that was approved by the AGM. A total of 128,950 warrants were subscribed for by the employees (of which 27,000 by the then existing management), which would lead to a dilutive effect of 0.7% on the total number of shares and 0.5% on the total number of votes. Each warrant grants the holder the right to subscribe for one class B share for SEK 76.70 during the period from 15 May 2010 to 31 August 2010. The warrant price was calculated according to the customary valuation method (Black & Scholes model) and amounted to SEK 5.32 per warrant, which meant that the employees subscribed for the options on market-based terms. In valuation according to the Black & Scholes model, a volatility of 30% and a risk-free interest rate of 3.92% were used.

### Expectations for future development

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.

The financial goal is to achieve a profit margin of 25% within 3-5 years.

BioGaia's ambition is to pay a shareholder dividend equal to 30% of profit after paid tax.

Product launches in a large number of countries are expected to take place during 2009.

In view of the Company's strong portfolio of an increased number of innovative products partly under the company's own brand, successful clinical trials and growing distribution network covering a large share of the key markets, BioGaia's future outlook is bright.

### The Board's proposal to the AGM regarding remuneration and other terms of employment of senior executives

The Board of Directors proposes that the AGM approves the following guidelines for remuneration and other terms of employment of 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 time.

It is of fundamental importance for the Board that the principles for remuneration and other terms of employment of senior executives in the Group

create long-term motivation and enable the Company to retain competent employees who work to attain 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 affected individuals should contain a well balance mix of fixed salary, long-term incentive schemes, pension benefits, other benefits and terms of notice/termination benefits

**Fixed salary** – Fixed salary shall be differentiated on the basis of the individual's role and responsibilities, as well as competence and experience in relevant positions.

**Long-term incentive schemes** – Every year, the Board of Directors shall evaluate whether a 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 mandatory age of retirement for senior executives who are Swedish citizens is 65 years, and for others according to the pension rules in their respective countries. 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 the other remuneration and shall be consistent with general norms in the respective geographic market.

**Terms of notice and termination benefits** – On termination of employment, whether initiated by the employee or the Company, the mutual term of notice for the Managing Director and Deputy Managing Director is 18 months, during which time both are entitled to full salary. For other senior executives, the term of notice is three months.

The Board of Directors proposes that the Board be authorised 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 5.

### Most recently adopted guidelines regarding remuneration and other terms of employment of senior executives

The Board of Directors' adopted guidelines corresponds to the proposal to the AGM (see above).

### Corporate governance

BioGaia has issued a separate corporate governance report, see page 26.

### Share information

The total registered share capital of BioGaia AB consists of 740,668 class A shares and 16,466,894 class B shares, for a total of 17,207,562 shares. One class A share carries 10 and one class B share carries 1 vote.

The number of shareholders at 31 December 2008 was 6,596 (6,458). An-nwall & Rothschild Investment AB is the largest shareholder and controls 15.9% of the share capital and 39.4% of the votes.

### International Financial Reporting Standards

The consolidated financial statements have been prepared in compliance with the International Financial Reporting Standards (IFRS) established by the International Accounting Standards Board (IASB) and the interpretations published by the International Financial Reporting Interpretations Committee (IFRIC) as endorsed by the European Commission for application in the EU. For more information, see pages 10-12.

### Proposed appropriation of profits

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

Retained profit	0
Profit for the year	29,472,314

Together amounting to:	29,472,314
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*The Board of Directors proposes that the earnings be disposed of as follows:*

To be paid as a dividend to the shareholders:	6,883,025
To be carried forward to new account:	22,589,289

Total:	29,472,314
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## Group

### Income statements

SEK 000s	Note	2008	2007	2006
Net sales	2,3	145,190	106,580	86,792
Cost of goods sold		-48,234	-35,122	-27,636
<b>Gross profit</b>		<b>96,956</b>	71,458	59,156
Other operating income	4	4,059	1,691	166
Selling expenses	5	-43,617	-37,739	-30,886
Administrative expenses	5,6	-8,193	-7,487	-6,847
Research and development expenses	5,14	-23,030	-17,938	-18,755
Other operating expenses	7	-	-	-433
Share in result of associated company	8	-334	-1,103	-685
<b>Operating profit</b>	9	<b>25,841</b>	8,882	1,716
Financial income	10	2,744	1,882	1,248
Financial expenses	11	-4,555	-75	-209
<b>Net financial items</b>		<b>-1,811</b>	1,807	1,039
<b>Profit before tax</b>		<b>24,030</b>	10,689	2,755
Tax	12	12,091	8,970	-35
<b>PROFIT FOR THE YEAR</b>		<b>36,121</b>	19,659	2,720
Attributable to:				
Equity holders of the Parent Company		36,121	19,659	2,720
Minority interest	13	-	-	-

### Earnings per share

Earnings per share (average number of shares), SEK	2.10	1.14	0.16
Earnings per share after dilution, SEK	2.10	1.14	0.16
Number of shares, thousands	17,208	17,208	17,208
Average number of shares, thousands	17,208	17,208	17,208
Number of outstanding warrants, thousands	129	129	-
Number of outstanding warrants with a dilutive effect, thousands	-	-	-
Average number of shares after dilution, thousands	17,208	17,208	17,208

### Cash flow statements

SEK 000s	Note	2008	2007	2006
<b>Operating activities</b>				
Operating result		25,841	8,882	1,716
<i>Adjustments for non-cash items</i>				
Depreciation/amortisation		4,260	3,979	4,314
Capital gains/losses on the sale of non-current assets		7	-	-147
Share in result of associated company		334	1,103	685
Other non-cash items		-407	-12	143
		30,315	13,952	6,711
Interest received		2,435	1,882	1,248
Interest paid		-54	-75	-209
<b>Cash flow from operating activities before changes in working capital</b>		<b>32,416</b>	15,759	7,750
<i>Cash flow from changes in working capital</i>				
Inventories		-8,381	-4,326	626
Current receivables		-5,916	-5,987	-13,330
Trade payables		599	-488	2,852
Current interest-free operating liabilities		486	130	1,271
<b>Cash flow from operating activities</b>		<b>19,204</b>	5,088	-831
<b>Investing activities</b>				
Purchase of intangible assets	14	-	-	-
Purchase of tangible assets	15	-2,373	-2,005	-1,072
Sale of tangible assets	15	19	-	236
Purchase of financial assets	16	-2,600	-1,500	-2,900
Purchase of current investments	23	-	-	-830
Net change of long-term receivables		-12	989	-
Cash flow from investing activities		-4,966	-2,516	-4,566
<b>Financing activities</b>				
New share issue warrants		-	686	-
New share issue CapAble AB	16	99	-	-
Repayment of debt		-	-	2,984
<b>Cash flow from financing activities</b>		<b>99</b>	686	-2,984
<b>CASH FLOW FOR THE YEAR</b>		<b>14,377</b>	3,258	-8,381
<b>Cash and cash equivalents at beginning of year</b>		<b>42,977</b>	39,719	48,349
Exchange difference in cash and cash equivalents		813	-	-249
<b>Cash and cash equivalents at end of year</b>		<b>58,127</b>	42,977	39,719

## Balance sheets

SEK 000s	Note	31 Dec. 2008	31 Dec. 2007	31 Dec. 2006
<b>ASSETS</b>				
<b>Non-current assets</b>				
Intangible assets	14, 30	5,050	8,199	11,416
Tangible assets	15	3,936	2,617	1,389
Participations in associated company	16, 30	7,851	5,585	5,188
Receivables from associated company	17, 20, 24, 30	4,400	4,400	5,400
Deferred tax asset	12	21,100	9,000	–
Deposits	18	47	27	18
<b>Total non-current assets</b>		<b>42,384</b>	<b>29,828</b>	<b>23,411</b>
<b>Current assets</b>				
Inventories	18	19,168	10,029	5,718
Trade receivables	19, 24	28,844	17,869	13,529
Receivables from associated company	20, 24	–	85	21
Other receivables	21	2,133	1,765	4,759
Prepaid expenses and accrued income	22	3,571	7,600	2,776
Current investments	23, 24	80	620	830
Cash and cash equivalents	24	58,127	42,977	39,719
<b>Total current assets</b>		<b>111,922</b>	<b>80,945</b>	<b>67,352</b>
<b>TOTAL ASSETS</b>		<b>154,306</b>	<b>110,773</b>	<b>90,763</b>

## Balance sheets

SEK 000s	Note	31 Dec. 2008	31 Dec. 2007	31 Dec. 2006
<b>EQUITY AND LIABILITIES</b>				
<b>Equity</b>				
Share capital	25	17,208	17,208	17,208
Other contributed capital		17,208	212,091	211,405
Reserves		1,411	121	86
Accumulated deficit		–120	–154,169	–156,889
Profit for the year attributable to equity holders of the Parent Company		36,121	19,659	2,720
<b>Total equity attributable to equity holders of the Parent Company</b>		<b>132,321</b>	<b>94,910</b>	<b>74,530</b>
Minority interest	16	99	–	–
<b>Total current liabilities</b>		<b>132,420</b>	<b>94,910</b>	<b>74,530</b>
<b>Liabilities</b>				
<i>Current liabilities</i>				
Prepayments from customers	24	999	1,532	1,000
Trade payables	24	6,607	6,032	6,540
Liabilities to associated company	20, 24	53	–	–
Other liabilities	26	5,625	796	492
Accrued expenses and deferred income	27	8,603	7,503	8,201
<b>Total current liabilities</b>		<b>21,886</b>	<b>15,863</b>	<b>16,233</b>
<b>Total liabilities</b>		<b>21,886</b>	<b>15,863</b>	<b>16,233</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>154,306</b>	<b>110,773</b>	<b>90,763</b>
<b>Pledged assets and contingent liabilities in the Group</b>				
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## Statement of changes in equity

SEK 000s	Share capital	Other contributed capital		Reserves		Total	Minority interest	Total equity
		Statutory reserve	Share premium reserve	Translation reserve	Accumulated deficit			
<b>Opening balance, 31 December 2006</b>	17,208	211,405	0	55	–156,889	71,779	–	71,779
Translation difference in 2006				31		31	–	31
Net income/expense recognised directly in equity	0	0	0	31	0	31	–	31
Profit for 2006					2,720	2,720	–	2,720
<b>Closing balance, 31 December 2006</b>	<b>17,208</b>	<b>211,405</b>	<b>0</b>	<b>86</b>	<b>–154,169</b>	<b>74,530</b>	<b>–</b>	<b>74,530</b>
New issue of warrants			686			686	–	686
Translation difference in 2007				35		35	–	35
Net income/expense recognised directly in equity	0	0	686	35	0	721	–	721
Profit for 2007					19,659	19,659	–	19,659
<b>Closing balance, 31 December 2007</b>	<b>17,208</b>	<b>211,405</b>	<b>686</b>	<b>121</b>	<b>–134,510</b>	<b>94,910</b>	<b>–</b>	<b>94,910</b>
Appropriation of accumulated deficit		–133,704	–686		134,390	0	–	0
New share issue CapAble AB							99	99
Translation difference 2008				1,290			–	1,290
Net income/expense recognised directly in equity	0	–133,704	–686	1,290	134,390	1,290	99	1,389
Profit for 2008					36,121	36,121	–	36,121
<b>Closing balance, 31 December 2008</b>	<b>17,208</b>	<b>77,701</b>	<b>0</b>	<b>1,411</b>	<b>36,001</b>	<b>132,321</b>	<b>99</b>	<b>132,420</b>

## Parent Company

### Income statements

SEK 000s	Note	2008	2007	2006
Net sales	2,3	143,586	107,034	86,855
Cost of goods sold		-47,211	-35,827	-27,777
<b>Gross profit</b>		<b>96,375</b>	71,207	59,078
Selling expenses <sup>1)</sup>	5	-36,035	-30,141	-28,676
Administrative expenses	5,6	-8,167	-7,488	-6,846
Research and development expenses	5, 14	-23,042	-17,784	-18,553
Other operating income	4	4,059	1,691	80
Other operating expenses	7	-	-	-433
<b>Operating profit</b>	9	<b>33,190</b>	17,485	4,650
<i>Result from financial investments</i>				
Result from participations in associated company	8, 16	-334	-1,103	-3,712
Result from participations in group companies	16	-569	-1,103	-3,712
Interest income and similar profit/loss items	17	-13,467	-9,424	-
Interest expense and similar profit/loss items	10	3,545	2,152	1,244
Interest expense and similar profit/loss items	11	-4,553	-66	-208
<b>Net financial items</b>		<b>-15,378</b>	-8,441	-2,676
Profit before tax		17,812	9,044	1,974
Tax	12	11,660	9,000	-
<b>PROFIT FOR THE YEAR</b>		<b>29,472</b>	18,044	1,974

### Cash flow statements

SEK 000s	Note	2008	2007	2006
<b>Operating activities</b>				
Operating profit <sup>1)</sup>		33,190	17,485	4,650
<i>Adjustments for non-cash items</i>				
Depreciation/amortisation		4,141	3,902	4,187
Capital gains/losses on the sale of non-current assets		7	-	-60
Other non-cash items		-407	-8	143
		36,931	21,379	8,920
Interest received		2,419	2,152	1,244
Interest paid		-52	-66	-208
Cash flow from operating activities before changes in working capital		39,298	23,465	9,956
<i>Cash flow from changes in working capital</i>				
Inventories		-8,040	-3,808	907
Current receivables		-7,007	-7,090	-14,434
Trade payables		1,686	-1,229	2,585
Current interest-free operating liabilities		3,234	1,552	78
Cash flow from operating activities		29,170	12,890	-908
<b>Investing activities</b>				
Purchase of intangible assets	14	-	-	-
Purchase of tangible assets	15	-2,311	-1,827	-782
Sale of tangible assets	15	19	-	150
Purchase of financial assets	16	-3,501	-1,500	-4,299
Payment of loan to subsidiary <sup>2)</sup>	17	-10,595	-7,794	-
Decrease of non-current receivables		-	1,000	-
<b>Cash flow from investing activities</b>		<b>-16,388</b>	-10,121	-4,931
<b>Financing activities</b>				
New share issue warrants		-	686	-
Repayment of debt		-	-	-2,984
Cash flow from financing activities		-	686	-2,984
<b>CASH FLOW FOR THE YEAR</b>		<b>12,782</b>	3,455	-8,823
<b>Cash and cash equivalents at beginning of year</b>		<b>42,103</b>	38,640	47,606
Exchange difference in cash and cash equivalents		408	8	-143
<b>Cash and cash equivalents at end of year</b>		<b>55,293</b>	42,103	38,640

<sup>1)</sup> In the annual report for 2007, write-down of receivable from subsidiary was recognised in selling expenses and was thus included in operating profit. For 2008, the write-down is recognised in financial items. For the sake of comparability, the write-down has been correspondingly reclassified in 2007.

<sup>2)</sup> In the annual report for 2007, only the net change in non-current receivables including write-downs in investing activities was recognised. For the sake of comparability, this item has been reclassified.

## Balance sheets

SEK 000s	Note	31 Dec. 2008	31 Dec. 2007	31 Dec. 2006
<b>ASSETS</b>				
<b>Non-current assets</b>				
<i>Intangible assets</i> 14, 30				
Capitalised development expenditure		5,050	8,199	11,406
Licenses and brands		–	–	10
<b>Total intangible assets</b>		<b>5,050</b>	<b>8,199</b>	<b>11,416</b>
<i>Tangible assets</i> 15				
Production equipment		1,105	1,166	260
Office equipment and computers		2,476	1,121	885
<b>Total tangible assets</b>		<b>3,581</b>	<b>2,287</b>	<b>1,145</b>
<i>Financial assets</i>				
Participations in group companies	16	4,469	4,137	4,137
Participations in associated company	16, 30	7,851	5,585	5,188
Receivables from group companies	17	–	1,325	–
Receivables from associated company	17, 20, 24, 30	4,400	4,400	5,400
Deferred tax asset	12	20,660	9,000	–
<b>Total financial assets</b>		<b>37,380</b>	<b>24,447</b>	<b>14,725</b>
<b>TOTAL NON-CURRENT ASSETS</b>		<b>46,011</b>	<b>34,933</b>	<b>27,286</b>
<b>Current assets</b>				
Inventories	18	17,231	9,191	5,382
<b>Current receivables</b>				
Trade receivables	19	27,832	17,743	12,944
Receivables from group companies		554	–	1,755
Receivables from associated company	20	–	85	21
Other receivables	21	1,938	1,426	4,744
Prepaid expenses and accrued income	22	3,382	7,327	2,774
<b>Total current receivables</b>		<b>33,702</b>	<b>26,581</b>	<b>22,238</b>
Current investments	23	80	620	830
Cash and cash equivalents		55,293	42,103	38,640
<b>Total current assets</b>		<b>106,310</b>	<b>78,495</b>	<b>67,090</b>
<b>TOTAL ASSETS</b>		<b>152,321</b>	<b>113,428</b>	<b>94,376</b>

## Balance sheets

SEK 000s	Note	31 Dec. 2008	31 Dec. 2007	31 Dec. 2006
<b>EQUITY AND LIABILITIES</b>				
<b>Restricted equity</b>				
Share capital	25	17,208	17,208	17,208
Statutory reserve		77,701	211,405	211,405
		<b>94,908</b>	<b>228,613</b>	<b>228,613</b>
<b>Non-restricted equity/Accumulated deficit</b>				
Share premium reserve		–	686	–
Accumulated deficit		–	–152,435	–154,409
Profit for the year		29,472	18,044	1,974
		<b>29,472</b>	<b>–133,705</b>	<b>–152,435</b>
<b>Total equity</b>		<b>124,380</b>	<b>94,908</b>	<b>76,178</b>
<b>Liabilities</b>				
<i>Current liabilities</i>				
Prepayments from customers		999	1,532	1,000
Trade payables		6,525	4,892	6,122
Liabilities to associated companies	20	53	–	–
Liabilities to group companies		7,962	3,803	3,336
Other liabilities	26	5,452	761	466
Accrued expenses and prepaid income	27	6,950	7,532	7,274
<b>Total current liabilities</b>		<b>27,941</b>	<b>18,520</b>	<b>18,198</b>
<b>Total liabilities</b>		<b>27,941</b>	<b>18,520</b>	<b>18,198</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>152,321</b>	<b>113,428</b>	<b>94,376</b>
<b>Pledged assets and contingent liabilities for the Parent Company</b>				
Floating charges	28	2,000	2,000	2,000
Contingent liabilities		None	None	None

## Statement of changes in equity

	Share capital	Statutory reserve	Share premium reserve restricted	Share premium reserve non-restricted	Accumulated deficit incl. profit for the year	Total equity
<b>Opening balance, 1 January 2006</b>	17,208	211,405	–	–	–154,409	74,204
Profit for 2006					1,974	1,974
<b>Closing balance, 31 December 2006</b>	17,208	211,405	0	0	–152,435	76,178
New issue of warrants				686		686
Profit for 2007					18,044	18,044
<b>Closing balance, 31 December 2007</b>	17,208	211,405	0	686	–134,391	94,908
Appropriation of accumulated deficit				–686	134,391	0
Profit for 2008					29,472	29,912
<b>Closing balance, 31 December 2008</b>	17,208	77,701	0	0	29,472	124,380

## Notes to the financial statements and accounting policies

All figures in SEK 000s unless otherwise specified. Figures in brackets refer to the preceding 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) established by the International Accounting Standards Board (IASB) and the interpretations published by the International Financial Reporting Interpretations Committee (IFRIC) as endorsed by the European Commission for application in the EU. Furthermore, the Swedish Financial Reporting Board's recommendation RFR 1.1 Supplementary Rules for Consolidated Financial Statements, has been applied.

The Parent Company applies the Swedish Financial Reporting Board's recommendation RFR 2.1 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 Companies Act limits the applicability of IFRS in the Parent Company.

#### Standards, amendments and interpretations effective in 2008 that have not affected the Group's disclosures

\* IFRIC 11 *IFRS 2 Group and Treasury Share Transactions (interpretation)*  
Provides guidance on the accounting treatment of cash-settled share-based payment in a subsidiary where another group company is responsible for settlement of the obligation.

\* IFRIC 14 *IAS 19 - The Limit on a Define Benefit Asset, Minimum Funding Requirements and their Interaction (interpretation)*  
Provides guidance on the accounting treatment of define benefit pension plans with minimum funding requirements and/or a pension plan surplus.

\* IAS 39 & IFRS 7 *Amendments – Reclassification of financial Assets (effective 1 July 2008)*

The amendment allows reclassification of certain financial instruments classified as held for trading or available for sale

#### Standards and interpretations to existing standards that are not yet effective and have not been early adopted by the Group

\* IAS 1 *Amendments*

The amendments are effective for annual periods beginning on or after 1 January 2009 and contain changes in the presentation of the income statement and the statement of changes in equity; presentation of "comprehensive income".

\* IFRS 8 *Operating segments*

The standard is effective for annual periods beginning on or after 1 January 2009 and will affect the disclosures about operating segments.

IFRS 8 Operating segments is effective as of 1 January 2009. The Group has chosen not to adopt this standard in advance.

Starting in the first quarter of 2009, the Group will divide its operations into the following segments:

- Finished consumer products: Sales of tablets, drops and oral health products, etc.
- Component products: Royalty income from the use of Reuteri, sales of cultures as an ingredient in licensee products (such as baby formula and dairy products), and sales of LifeTop Straw and Life Top Cap.
- Other sales: Animal Health, etc.

BioGaia will report revenue and gross profit by segment and each segment's share of trade receivables. Other expenses are not allocated and are therefore not reported by segment.

#### Standards and interpretations that are not yet effective and are not assessed to be relevant for the Group's operations at present

\* IFRIC 12 *Service Concession Arrangements*

\* IFRIC 13 *Customer Loyalty Programmes*

\* IFRIC 15 *Agreements for the Construction of Real Estate (not endorsed by the EU)*

\* IFRIC 16 *Hedges of a Net Investment in a Foreign Operation (not endorsed by the EU)*

\* IAS 23 *Borrowing costs – amendments regarding capitalisation of borrowing costs*

\* IFRS 2 *Share-based payment – amendments regarding vesting conditions and cancellations*

\* IFRS 3 *Changes in accounting for business combinations (not endorsed by the EU)*

\* IAS 32 & IAS 1 *Changes in classification of certain financial instruments*

\* IFRS 1 & IAS 27 *Amendments regarding the cost of investments in subsidiaries, jointly controlled entities and associates in first-time adoption of IFRS*

#### Basis of presentation

The financial statements have been prepared according to the cost method of accounting unless otherwise stated.

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.

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 30.

### Scope of consolidation

The consolidated financial statements include those companies in which the Parent Company has a controlling influence. Control is achieved where the Company directly or indirectly has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

The consolidated financial statements have been prepared in accordance with the purchase method. In the purchase method of accounting, the acquisition of a subsidiary is regarded as a transaction in which the Group indirectly acquires the subsidiary's assets and assumes its liabilities and contingent liabilities. The Group's cost of acquisition for the investment in the subsidiary is determined through a purchase price allocation in connection with the acquisition. The cost of the acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Subsidiaries are consolidated from the date on which control is transferred to the Group and cease to be consolidated from the date on which control is transferred out of the Group.

All intra-group balances and transactions, including unrealised gains or losses arising from intra-group transactions, are eliminated in full on consolidation.

### Foreign currencies

#### Functional currency

The functional currency is the currency of the primary economic environments where the Group's companies operate.

#### Transactions and balances

Transactions in foreign currency 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. Foreign exchange gains/losses arising on translation are recognized in the income statement. 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 carried at fair value are translated to the functional currency at the rate of exchange ruling on the date when the fair values were determined. Foreign exchange differences arising on operating receivables and liabilities are recognized in operating profit, while exchange differences arising on financial assets and liabilities are recognized among net financial items.

#### Financial statements of foreign operations

Assets and liabilities in foreign operations are translated from the functional currency of the foreign operation to the Group's reporting 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. Translation differences arising on translation of foreign operations are recognised directly in consolidated equity as a translation reserve.

#### Net investments in foreign operations

Exchange differences arising on translation of non-current loans that form part of the net investment in a foreign operation are deferred to a translation reserve in equity.

### Associated companies

Associated companies are those companies in which the Group has significant but not controlling influence. Investments in associated companies are accounted for using the equity method of accounting and are initially recognised at cost on the acquisition date and are subsequently adjusted to reflect the Company's share of fair value changes in the net assets of the associated company.

### Segment reporting

Since 2003 the Company has only one business area, Animal & Human Health, consisting of the Human Health and Animal Health marketing units. Animal Health may constitute a separate segment in the future, but in 2008 accounted for only 0.6% (0.5%) of total net sales.

Starting in the first quarter of 2009, the Group will account for its operating segments according to IFRS 8. See above under section on new standards.

### Revenue

BioGaia's sales net sales consist primarily of revenue from the sale of consumer products (tablets, drops and oral health products) to distributors, but also revenue from the sale of input products such as royalties for the use of Reuteri in licensee products (such as baby formula and dairy products), revenue from the sale of Reuteri cultures for use in licensee products (such as baby formula and dairy products) and revenue from the sale of delivery systems such as straws and caps.

Revenue from the sale of goods is recognised when the amount can be measured reliably, it is probable that the economic benefits will flow to the Company upon delivery in accordance with the agreed sale and shipping conditions.

Royalties are measured as a percentage of the licensee's reported sales value for consumer products containing BioGaia's products, and are recognised monthly or quarterly. License revenue received in connection with the signing of agreements is accrued in cases where it intended to cover costs until the time of launch. In other cases, the revenue is recognised immediately.

Interest income is recognised in the income statement for the period in which it arises.

### Leases

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

### Pensions

All employees are subject to mandatory retirement in accordance with Swedish law, currently at the age of 65 years. The Company has no pension commitments other than payment of annual pension insurance premiums. Pension insurance premiums are expensed as incurred.

### Income tax expense

Current tax refers to the tax computed on the year's taxable profit. Deferred tax refers to the tax calculated partly on the basis of temporary differences and partly on taxable deficits. At every closing of the books, an assessment is made to determine whether to recognise deferred tax assets not previously recognised in the balance sheet. Such tax assets are recognised to the extent that they are.

### Research and development

Costs related to research undertaken with the prospect of gaining new scientific or technical knowledge in the Group's operations are expensed as incurred. Costs for development, where knowledge and understanding gained from research and practical experience are directed towards producing new products, processes or systems, are recognized as intangible assets in the balance sheet when they meet the criteria for capitalization according to IAS 38, i.e. only when the technical and commercial feasibility of the product or process has been established, the Group has adequate resources to complete development and the Group intends and is able to complete the intangible asset and either use it or sell it. It should also be probable that the future economic benefit attributable to the asset will flow to the Company and the cost of the asset can be reliably measured. The reported value includes all directly attributable costs, such as those for materials, salaries and compensation to employees engaged in R&D activities. Other development costs are expensed in the income statement for the period in which they arise.

Individual assessment is made of all ongoing research and development projects to determine which costs for the respective project are capitalisable and to look for any indications of impairment.

The Company has a number of projects that meet the criteria for capitalisation and are recognised in the balance sheet. In 2008 no development costs were assessed to meet these criteria, for which reason all costs were expensed.

### Intangible and tangible assets

Intangible and tangible assets are recognised at cost with a deduction for accumulated amortisation/depreciation.

The following depreciation/amortisation schedules are applied:

<u>Intangible assets</u>	<u>Group</u>	<u>Parent Company</u>
Capitalised development expenditure	5-10 yrs	5-10 yrs
Licenses	5 yrs	5 yrs
Brands	5 yrs	5 yrs

### Tangible assets

Production equipment	5 yrs	5 yrs
Equipment and computers	3-5 yrs	3-5 yrs

Amortisation is started when a project has been completed and the product begins generating revenue.

The amortisation period varies between 5-10 years depending on the estimated useful life of the project. The only project with an amortisation schedule of more than 5 years is the Animal Health project, for which the amortisation period is matched to the term of the contract.

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. 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 recoverable amount.

### Inventories

Inventories are stated at the lower of cost and net realisable value, including provisions for obsolescence. Cost is measured according to weighted average prices.

### Cash and cash equivalents

Cash and cash equivalents comprise cash in hand and at bank.

### Financial assets and liabilities

Financial instruments in the Group are measured and recognised in accordance with the rules in IAS 39.

The financial assets recognised in balance sheet include cash and cash equivalents, short-term investments, trade payables and loans. Financial liabilities and equity include trade payables 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 and loss. Subsequent measurement depends on how the instruments have been classified according to the following.

A financial asset or liability is recognised in the balance sheet when the Company initially becomes party to the contractual provisions of the instrument. Trade payables are recorded in the balance sheet when an invoice has been sent. Financial liabilities are recognised when the counterparty has performed and there is contractual obligation to pay, even if no invoice has been received. Trade payables are recorded when an invoice has been received.

A financial asset is derecognised from the balance sheet when the Company's rights under the agreement are realised, expire or the Company has relinquished control of the asset. The same applies to a part of a financial asset. A financial liability is derecognised 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 purchase or sale of a financial asset is recognised on the trade date, which is the date on which the Company commits to purchase or sell the asset.

The Company classifies its financial assets and liabilities in the following categories; Financial assets valued at fair value through profit or loss, trade receivables and loans, Held-to-maturity investments and Other financial liabilities.

## Note 2 Segment reporting

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
<i>Net sales by geographical market</i>						
Europe	93,973	62,354	37,290	93,674	62,269	37,205
USA and Canada	8,851	7,736	6,888	8,698	7,544	6,583
Asia	30,618	25,895	32,027	29,466	26,626	32,480
Rest of world	11,748	10,595	10,587	11,748	10,595	10,587
	<b>145,190</b>	106,580	86,792	<b>143,586</b>	107,034	86,855

Since 2003 the company has only one business area, Animal & Human Health, consisting of the Human Health and Animal Health marketing units.

Animal Health may constitute a separate segment in the future, but in 2008 accounted for only 0.6% (0.5%) of total net sales.

More than 90% of the Group's total assets, amounting to SEK 154,306 thousand (110,773) are located in Europe.

Of the Group's capital expenditure on tangible and intangible assets, totalling SEK 2,373 thousand (2,005), more than 90% pertained to Europe.

Starting in the first quarter of 2009, the Group will be divided into the following segments:

Finished consumer products: Sales of tablets, drops and oral health products, etc.

Component products: Royalty income from the use of Reuteri, sales of cultures as an ingredient in licensee products (such as baby formula and dairy products), and sales of LifeTop Straw and Life Top Cap.

Other sales: Animal Health, etc.

BioGaia will report revenue and gross profit by segment and each segment's share of trade receivables.

## Note 3 Revenue

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
Royalties	6,629	11,728	11,108	6,629	11,728	11,108
Product revenue	138,561	94,852	75,684	136,957	95,306	75,747
	<b>145,190</b>	106,580	86,792	<b>143,586</b>	107,034	86,855

## Note 4 Other operating income

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
EU subsidies	–	–	22	–	–	22
Gains on the sale of non-current assets	–	–	144	–	–	58
Damages received	–	866	–	–	866	–
Exchange gains on operating receivables/liabilities	4,059	793	–	4,059	793	–
Other income	–	32	–	–	32	–
	<b>4,059</b>	1,691	166	<b>4,059</b>	1,691	80

## Note 5 Employees and personnel expenses, remuneration to senior executives

### Average number of employees by country

	2008		2007		2006	
		of whom, men		of whom, men		of whom, men
<b>Parent Company</b>						
Sweden	32	13	30	12	31	13
<b>Subsidiaries</b>						
Japan	4	3	5	5	1	1
USA	3	1	2	–	2	–
Total subsidiaries	7	4	7	5	3	1
Total Group	39	17	37	17	34	14

The number of employees in the Group on 31 December 2008 was 42 (37).

### Distribution of salaries and other remuneration by country and between Board members, etc., and other employees

	2008		2007		2006	
	Board and MD	Other employees	Board and MD	Other employees	Board and MD	Other employees
<b>Parent Company</b>						
Sweden	3,276	14,325	2,909	12,971	2,809	12,175
<b>Subsidiaries</b>						
Sweden	236	–	–	–	–	–
Japan	768	2,680	1,372	3,045	485	1,033
USA	–	1,578	–	893	–	953
Total subsidiaries	1,004	4,258	1,372	3,938	485	1,986
Total Group	<b>4,280</b>	<b>18,583</b>	<b>4,281</b>	<b>16,729</b>	<b>3,294</b>	<b>14,161</b>

Cont'd Note 5

**Total salaries and social security expenses**

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
Salaries and other remuneration	22,863	21,010	17,455	17,601	15,700	14,984
Pension expenses for the Board and MD	461	377	377	379	377	377
Pension expenses for other employees	1,888	1,461	1,604	1,690	1,373	1,508
Other social security expenses	6,158	5,655	5,235	5,856	5,249	5,101
<b>Total</b>	<b>31,370</b>	<b>28,503</b>	<b>24,671</b>	<b>25,526</b>	<b>22,699</b>	<b>21,970</b>

**Sickness absence in the Parent Company as a percentage of total number of working hours**

	2008	2007	2006
Total sickness absence	4%	4%	5%
Of which, long-term	7,8%	75%	89%
Sickness absence for men	1%	4%	3%
Sickness absence for women	6%	3%	6%
Employees aged 30–49 years	6%	5%	7%
Other employees	1%	1%	1%

Age groups with fewer than 10 employees are reported on the line "other employees".

**Pensions and insurances**

All employees are subject to mandatory retirement in accordance with Swedish law, currently at the age of 65 years. The Company has no pension commitments other than payment of annual pension insurance premiums. For all employees over the age of 28 years, the following pension insurance premiums are paid in relation to salary:

Pensionable salary within the range:	0–7.5 base amounts	7.5–20 base amounts	20–30 base amounts
Premium:	6%	15%	6%

All employees aside from the Managing Director and Deputy Managing Director are covered by health insurance, with benefits, in addition to compensation from the Social Insurance Office according to the following:

Each individual is entitled to benefits in the following amounts:

Salary in range of:	0–7.5 base amounts	7.5–20 base amounts	20–30 base amounts
Sickness benefits after 3 months	0%	65%	33%
Disability retirement	15%	65%	33%

**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 David Dangoor and Board member Stefan 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 Managing Director and other senior executives employed by the Company consists of basic salary, variable remuneration and other benefits.

Other senior executives comprise the 8 persons who together with the Managing Director and Deputy Managing Director make up the executive management team.

One senior executive works on a consulting basis since May 2003.

In the event of termination by the Company, the Managing Director and Deputy Managing Director are entitled to full salary during an 18-month period of notice.

Other senior executives have a period of notice of at least 3 months in the event of termination by the Company. For the Managing Director and Deputy Managing Director, the Company pays the cost of health insurance that provides sickness benefits equal to 75% of salary after a qualifying period of 3 months and in the event of early retirement.

In other respects, the Managing Director has the same benefits as other employees, i.e. pension insurance and fitness allowance.

No agreements for termination benefits exist for the Managing Director or other senior executives.

**Remuneration and other benefits during the year**

	Director's fees	Basic salary	Variable remuneration	Share-based payments	Other benefits	Pension insurance including health insurance	Other remuneration	Total
Board Chairman, David Dangoor	200							200
Board member, Jan Annwall (Deputy MD)		1,148			1	178		1,325
Board member, Stefan Elving	100							100
Board member, Thomas Flinck	100							100
Board member, Inger Holmström	100							100
Board member, Jörgen Thorball	100							100
Board member, Paula Zeilon	100							100
Managing Director Peter Rothschild		1,429			2	201		1,632
Other senior executives (7 persons)		5,000			10	638	1,894	7,542
	700	7,577	–	–	13	1,017	1,894	11,201

**Comments on the table**

Other remuneration to other senior executive refers to consulting fees to a former employee who has worked for the Company on a consulting basis since May 2003 and is a member of the executive management team. Other benefits pertain to fitness allowance.

In June 2007 BioGaia carried out a warrant program that was approved by the AGM 2007. A total of 128,950 warrants were subscribed for by the employees (of which 27,000 by the then existing management). Each warrant grants the holder the right to subscribe for one class B share for SEK 76.70 during the period from 15 May 2010 to 31 August 2010. The warrant price was calculated according to the customary valuation method (Black & Scholes model) and amounted to SEK 5.32 per warrant, which meant that the employees subscribed for the options on market-based terms. The warrant price was calculated according to the Black & Scholes model using a volatility of 30% and a risk-free interest rate of 3.92%.

Cont'd Note 5

**Gender distribution**

	2008		2007		2006	
	women	Men	Women	Men	Women	Men
Board members	2	5	3	4	2	5
Management including MD	2	8	2	7	2	6

**Note 6 Auditing fees**

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Grant Thornton Sweden AB						
Audit assignments	421	421	346	346	251	251
Other assignments	129	124	59	59	52	52
Cherry, Bekaert & Holland, L.L.P.						
Audit assignments	57	–	42	–	33	–
Other assignments	106	–	92	–	141	–
Nakashima Accounting Firm						
Audit assignments	36	–	36	–	–	–
Other assignments	–	–	–	–	–	–

Audit assignments refer to examination of the consolidated financial statements, the accounts and the administration of the Board of Directors and the Managing Director of the Company, other tasks incumbent on the Company's auditor, and advice or other assistance prompted by observations from such audits or the performance of other such tasks. All other work is classified as "other assignments".

**Note 7 Other operating expenses**

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
Exchange losses on operating receivables/liabilities	–	–	433	–	–	433
	–	–	433	–	–	433

**Note 8 Result from participations in associated company**

	2008	2007	2006
Share in loss of TwoPac AB	–334	–1,103	–685

**Note 9 Operating expenses allocated by type of cost**

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Raw materials and consumables	57,226	55,104	38,736	39,639	26,863	26,782
Change in inventories of finished products	–8,992	–7,893	–3,614	–3,812	773	995
Personnel expenses	30,959	25,352	28,714	22,910	23,580	22,010
Depreciation/amortisation	4,272	4,141	3,980	3,902	4,314	4,187
Other operating expenses	39,942	37,751	31,573	29,330	29,712	28,312
	123,407	114,455	99,389	91,240	85,242	82,286

The item "administrative expenses" includes lease payments of SEK 132 thousand (197). Total minimum future lease payments pertaining to operating leases fall due as follows:

Within one year: 0

Within two to five years: 110

The Group's future payment commitments for leases amount to SEK 4.0 million, of which SEK 3.7 million refers to the Parent Company. The Group's rents fall due for payment in an amount of SEK 2.5 million within one year and SEK 1.5 million within two to five years.

**Note 10 Financial income**

	2008	2007	2006
<b>Group</b>			
Interest income	2,744	1,882	1,248
	2,744	1,882	1,248
<b>Parent Company</b>			
Interest income	3,545	2,152	1,244
<b>Total interest income</b>	3,545	2,152	1,244

Cont'd Note 13

### ■ Note 11 Financial expenses

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
<b>Interest expenses</b>						
Unrealised losses on forward exchange contracts	4,501	10	165	4,501	10	165
Other financial expenses	54	65	44	52	56	43
	<b>4,555</b>	<b>75</b>	<b>209</b>	<b>4,553</b>	<b>66</b>	<b>208</b>

The Parent Company and the Group have entered into forward exchange contracts in EUR for a total of EUR 4,550,000 at an average exchange rate of SEK 9.84 that mature in 2009. The unrealised foreign exchange loss is reported as a financial expense.

### ■ Note 12 Tax on result for the year

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Current tax	-9	-	-30	-	-35	-
Deferred tax	12,100	11,660	9,000	9,000	-	-
	<b>12,091</b>	<b>11,660</b>	<b>8,970</b>	<b>9,000</b>	<b>-35</b>	<b>-</b>

#### Reconciliation of nominal tax and actual tax expense

Reported result before tax	24,029	17,812	10,689	9,044	2,755	1,974
Nominal tax rate, 28%	-6,728	-4,987	-2,993	-2,532	-771	-553
Tax effect of loss for which no tax asset has been recognised	6,992	9,196	3,369	5,526	1,004	1,613
Tax effect capitalised loss carryforwards	12,646	12,206	9,000	9,000	-	-
Tax effect of changed tax rate	-546	-546	-	-	-	-
Tax effect of other non-deductible and non-taxable items	-190	-4,120	-50	-50	-29	-29
Tax effect of group adjustments	-89	-	-359	-	-247	-
Tax effect of temporary differences	6	-89	3	-2,944	8	-1,031
	<b>12,091</b>	<b>11,660</b>	<b>8,970</b>	<b>9,000</b>	<b>-35</b>	<b>0</b>

#### Deferred tax asset

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Opening balance, 1 January	9,000	9,000	-	-	-	-
The year's tax income	12,100	11,660	9,000	9,000	-	-
<b>Closing balance, 31 December</b>	<b>21,100</b>	<b>20,660</b>	<b>9,000</b>	<b>9,000</b>	<b>-</b>	<b>-</b>

The Group's loss carryforwards amounted to a total of SEK 97,899 thousand (123,081) at 31 December 2008.

No deferred tax has been recognised on loss carryforwards amounting to SEK 17,664 thousand (90,938).

Loss carryforwards of SEK 80,235 thousand (113,102) are attributable to the Swedish companies and therefore have no specified expiration date.

The company has shown a profit since 2006 and is therefore considered to have reached a sustainable profit level, for which reason the entire deferred tax asset attributable to the Swedish companies was recognised at 31 December 2008. Loss carryforwards of SEK 17,664 thousand (9,978) are attributable to the Japanese subsidiary. Of this total, SEK 2,210 thousand will expire in the financial year 2013, SEK 7,768 thousand in 2014 and SEK 7,686 thousand in 2015.

### ■ Not 13 Minority interest

	2008
Opening balance, 1 January	-
Minority share in profit	-33
Impairment loss on receivable from minority	33
<b>Closing balance, 31 December</b>	<b>0</b>

The minority interest refers to 9.9% own by the managing Director of the subsidiary Capable AB.

### ■ Note 14 Intangible assets

#### Group and Parent Company

	Capitalised development expenditure	Licenses and brands	Total intangible assets
Accumulated cost			
Opening balance, 1 January 2006	26,875	2,528	29,403
Purchases	-	-	-
<b>Closing balance, 31 December 2006</b>	<b>26,875</b>	<b>2,528</b>	<b>29,403</b>
Opening balance, 1 January 2007	26,875	2,528	29,403
Purchases	-	-	-
<b>Closing balance, 31 December 2007</b>	<b>26,875</b>	<b>2,528</b>	<b>29,403</b>

## Cont'd Note 14

Opening balance, 1 January 2008	26,875	2,528	29,403
Purchases	–	–	–
<b>Closing balance, 31 December 2008</b>	<b>26,875</b>	<b>2,528</b>	<b>29,403</b>
<b>Accumulated amortisation</b>			
Opening balance, 1 January 2006	11,929	2,398	14,327
The year's amortisation	3,540	120	3,660
<b>Closing balance, 31 December 2006</b>	<b>15,469</b>	<b>2,518</b>	<b>17,987</b>
Opening balance, 1 January 2007	15,469	2,518	17,987
The year's amortisation	3,207	10	3,217
<b>Closing balance, 31 December 2007</b>	<b>18,676</b>	<b>2,528</b>	<b>21,204</b>
Opening balance, 1 January 2008	18,676	2,528	21,204
The year's amortisation	3,149	–	3,149
<b>Closing balance, 31 December 2008</b>	<b>21,825</b>	<b>2,528</b>	<b>24,353</b>
<b>Carrying amounts</b>			
At 1 January 2006	14,946	130	15,076
At 31 December 2006	11,406	10	11,416
At 31 December 2007	8,199	0	8,199
<b>At 31 December 2008</b>	<b>5,050</b>	<b>0</b>	<b>5,050</b>

Capitalised expenses include internally generated and externally acquired assets.

**Amortisation is recognised on the following lines in the income statement**

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Research and development expenses	3,149	3,149	3,217	3,217	3,660	3,660
	<b>3,149</b>	<b>3,149</b>	<b>3,217</b>	<b>3,217</b>	<b>3,660</b>	<b>3,660</b>

Amortisation begins when a project has been completed and product sales have been started. The amortisation period varies between 5–10 years depending on the estimated useful life of the project. Amortisation has been started for all projects. These refer to BioGaia probiotic tablets, BioGaia probiotic drops, BioGaia probiotic straw, Animal Health products, Oral Health products and LifeTop Cap. These projects will be fully amortised in 1–4 years.

**Total research and development expenditure**

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Total R&D expenditure	19,560	19,659	14,721	14,567	14,888	14,789
The year's capitalisation of development expenses	–	–	–	–	–	–
Uncapitalised R&D expenditure	19,560	19,659	14,721	14,567	14,888	14,789
Impairment losses	–	–	–	–	–	–
Amortisation/depreciation recognised in R&D expenses	3,470	3,470	3,217	3,217	3,867	3,764
R&D expenses affecting income	23,030	23,042	17,938	17,784	18,755	18,553

**Note 15 Tangible assets****Group**

	Production equipment		Office equipment and computers		Total tangible assets
<b>Accumulated cost</b>					
Opening balance, 1 January 2006	2,184		6,239		8,423
Purchases	8		1,043		1,051
Sales and disposals	–		–811		–811
Translation difference	–		–208		–208
<b>Closing balance, 31 December 2006</b>	<b>2,192</b>		<b>6,263</b>		<b>8,455</b>
Opening balance, 1 January 2007	2,192		6,263		8,455
Purchases	1,210		786		1,996
Translation difference	–		–69		–69
<b>Closing balance, 31 December 2007</b>	<b>3,402</b>		<b>6,980</b>		<b>10,382</b>
Opening balance, 1 January 2008	3,402		6,980		10,382
Purchases	291		2,089		2,380
Translation difference	–		287		287
Sales and disposals	–		–29		–29
<b>Closing balance, 31 December 2008</b>	<b>3,693</b>		<b>9,327</b>		<b>13,020</b>

Cont'd Note 15

<b>Accumulated depreciation</b>			
Opening balance, 1 January 2006	1,798	5,534	7,332
Depreciation	134	512	646
Sales and disposals	–	–720	–720
Translation difference	–	–192	–192
<b>Closing balance, 31 December 2006</b>	<b>1,932</b>	<b>5,134</b>	<b>7,066</b>
Opening balance, 1 January 2007	1,932	5,134	7,066
Depreciation	304	459	763
Translation difference	–	–64	–64
<b>Closing balance, 31 December 2007</b>	<b>2,236</b>	<b>5,529</b>	<b>7,765</b>
Opening balance, 1 January 2008	2,236	5,529	7,765
Depreciation	352	769	1,121
Sales and disposals	–	–2	–2
Translation difference	–	200	200
<b>Closing balance, 31 December 2008</b>	<b>2,588</b>	<b>6,496</b>	<b>9,084</b>
<b>Carrying amounts</b>			
At 1 January 2006	386	705	1,091
At 31 December 2006	260	1,129	1,389
At 31 December 2007	1,166	1,451	2,617
<b>At 31 December 2008</b>	<b>1,105</b>	<b>2,831</b>	<b>3,936</b>

**Parent Company**

	<b>Production equipment</b>	<b>Office equipment and computers</b>	<b>Total tangible assets</b>
<b>Accumulated cost</b>			
Opening balance, 1 January 2006	2,184	4,752	6,936
Purchases	8	774	782
Sales and disposals	–	–501	–501
<b>Closing balance, 31 December 2006</b>	<b>2,192</b>	<b>5,025</b>	<b>7,217</b>
<b>Opening balance, 1 January 2007</b>	<b>2,192</b>	<b>5,025</b>	<b>7,217</b>
<b>Purchases</b>	<b>1,210</b>	<b>616</b>	<b>1,626</b>
<b>Closing balance, 31 December 2007</b>	<b>3,402</b>	<b>5,641</b>	<b>9,043</b>
Opening balance, 1 January 2008	3,402	5,641	9,043
Purchases	291	2,020	2,311
Sales and disposals	–	–29	–29
<b>Closing balance, 31 December 2008</b>	<b>3,693</b>	<b>7,633</b>	<b>11,325</b>
<b>Accumulated depreciation</b>			
Opening balance, 1 January 2006	1,798	4,157	5,955
Depreciation	134	392	526
Sales and disposals	–	–409	–409
<b>Closing balance, 31 December 2006</b>	<b>1,932</b>	<b>4,140</b>	<b>6,072</b>
Opening balance, 1 January 2007	1,932	4,140	6,072
Depreciation	304	380	684
<b>Closing balance, 31 December 2007</b>	<b>2,236</b>	<b>4,520</b>	<b>6,756</b>
Opening balance, 1 January 2008	2,236	4,520	6,756
Depreciation	352	638	990
Sales and disposals	–	–2	–2
<b>Closing balance, 31 December 2008</b>	<b>2,588</b>	<b>5,156</b>	<b>7,744</b>
<b>Carrying amounts</b>			
At 1 January 2006	386	595	981
At 31 December 2006	260	885	1,145
At 31 December 2007	1,166	1,121	2,287
<b>At 31 December 2008</b>	<b>1,105</b>	<b>2,476</b>	<b>3,581</b>

Depreciation is recognised on the following lines in the income statement

	<b>2008</b>		<b>2007</b>		<b>2006</b>	
	<b>Group</b>	<b>Parent Company</b>	<b>Group</b>	<b>Parent Company</b>	<b>Group</b>	<b>Parent Company</b>
Cost of goods sold	–	–	–	–	–	–
Selling expenses	661	617	500	443	370	354
Administrative expenses	139	139	92	92	68	68
Research and development expenses	321	234	171	149	208	104
	<b>1,121</b>	<b>990</b>	<b>763</b>	<b>684</b>	<b>646</b>	<b>526</b>

## Note 16 Financial assets

### Participations in group companies

	2008	2007	2006
	Parent Company	Parent Company	Parent Company
<b>Accumulated cost</b>			
At beginning of year	4,137	4,137	3,568
Purchase of shares in CapAble AB	901	–	–
Impairment loss on the shares in BioGaia Japan Inc.	–569	–	–
Purchase of shares in BioGaia Japan Inc.	–	–	569
<b>Book value at end of year</b>	<b>4,469</b>	<b>4,137</b>	<b>4,137</b>

### Specification of the Parent Company's equity holdings in group companies

Subsidiary/corp.reg.no./reg. office	No. of shares	Holding, %	Book value
BioGaia Biologics Inc. /-/Raleigh, NC, USA	100,000	100	0
TriPac AB /556153-2200/Lund	10,000	100	3,568
CapAble AB /556768-3601/Stockholm	90 100	90,1	901
BioGaia Japan Inc. /-/Hiroshima, Japan	180	100	0
			4,469

The assets and liabilities of the American subsidiary BioGaia Biologics Inc. have been translated at the closing day rate of exchange, SEK 7.77 (6.40). All items in the income statement have been translated at the average exchange rate during the year, SEK 6.59 (6.76). The assets and liabilities of the Japanese subsidiary BioGaia Japan Inc. have been translated at the closing day rate of exchange SEK 0.086 (0.057). All items in the income statement have been translated at the average exchange rate SEK 0.058 (0.057). The resulting translation differences have been reported directly against consolidated equity.

CapAble AB was formed in the autumn of 2008. BioGaia owns 90.1% of the company. CapAble's Managing Director, Staffan Pålsson, owns 9.9% of the company and has contributed SEK 99 thousand in connection with the new share issue in CapAble.

Of total purchases made by the Parent Company, 3.0% (2.0) was attributable to group companies.

Of total sales made by the Parent Company 1.0% (1.0) was attributable to group companies.

### Participations in associated companies

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
At beginning of year	5,585	5,585	5,188	5,188	2,973	6,000
Conditional shareholder contribution	2,000	2,000	500	500	2,900	2,900
Conversion of advance payment to conditional shareholder contribution	600	600	–	–	–	–
Conversion of loan to conditional shareholder contribution	–	–	1,000	1,000	–	–
Share in result for the year	–	–	–1,103	–	–685	–
Impairment loss on participation in associated company	–334	–334	–	–1,103	–	–3,712
<b>Book value at end of year</b>	<b>7,851</b>	<b>7,851</b>	<b>5,585</b>	<b>5,585</b>	<b>5,188</b>	<b>5,188</b>

The participations in the associated company have been written down to the carrying amount in the Group.

### Specification of the Parent Company's and the Group's equity holdings in associated companies

	2008	2007	2006
TwoPac AB/556591-9767/Eslöv	2008	2007	2006
Assets	9,833	7,798	8,463
Liabilities	6,137	6,418	6,377
Equity	3,696	1,380	2,086
Sales	9,290	2,605	1,656
Net result for the year	–284	–2,206	–1,369
Number of shares	5,000	5,000	5,000
Holding, %	50	50	50
Value of equity share in Group	7,851	5,585	5,188
Book value in Parent Company	7,851	5,585	5,188

Because BioGaia does not have a controlling influence in TwoPac AB, the participations in the associated company are reported according to the equity method.

## Note 17 Receivables from subsidiaries and associated company

### Non-current receivables from subsidiaries

	2008	2007	2006
	Parent Company	Parent Company	Parent Company
At beginning of year	1,325	–	–
Conversion of current to non-current liability	–	1,569	–
Loan to subsidiary	10,595	7,795	–
Foreign exchange losses	–	–201	–
Product sales	730	1,301	–
Interest income	817	285	–
Provisions for receivables	13,467	–9,424	–
	0	1,325	–

The receivable refers to the subsidiary in Japan. Because it is uncertain whether the loan will be repaid within a foreseeable future, a provision has been made for the amount receivable.

Cont'd Note 23

**Receivables from associated companies**

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
At beginning of year	4,400	4,400	5,400	5,400	5,400	5,400
Conversion of loan to conditional shareholder contribution	–	–	–1,000	–1,000	–	–
<b>Closing balance at end of year</b>	<b>4,400</b>	<b>4,400</b>	<b>4,400</b>	<b>4,400</b>	<b>5,400</b>	<b>5,400</b>

The Company has issued a loan to the associated company TwoPac AB. The loan is being used primarily for development of equipment for manufacturing of LifeTop products.

**Note 18 Inventories**

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Raw materials and consumables	269	269	122	122	125	125
Finished goods and goods for resale	18,899	16,962	9,907	9,069	5,593	5,257
	<b>19,168</b>	<b>17,231</b>	<b>10,029</b>	<b>9,191</b>	<b>5,718</b>	<b>5,382</b>

The Company's provisions for obsolescence amounted to SEK 504 thousand (279) at 31 December 2008. An individual assessment of the obsolescence reserve has been carried out.

**Note 19 Trade receivables**

The Group and the Parent Company have recorded a loss of SEK 20 (0) on the write-down of trade receivables in 2008. Provisions for bad debt losses amounted to SEK 36 thousand (16) at 31 December 2008.

At 31 December 2008, trade receivables of SEK 3,317 thousand (2,366) were overdue without any assessed need for a write-down. Of the overdue receivables, SEK 723 thousand had been paid as of the closing date. An age analysis of these trade receivables is shown below:

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
Less than 3 months	3,244	2,281	3,625	3,172	2,281	3,625
3-6 months	73	85	–	73	85	–
	<b>3,317</b>	<b>2,366</b>	<b>3,625</b>	<b>3,245</b>	<b>2,366</b>	<b>3,625</b>

**The reported amounts for the Group's trade receivables by currency are:**

	Group			Parent Company		
	2008	2007	2006	2008	2007	2006
SEK	4,514	5,031	3,413	4,442	5,031	3,413
EUR	23,389	11,649	8,332	23,389	11,649	8,332
USD	1	497	1,153	1	433	568
DKK	–	630	605	–	630	605
JPY	940	62	–	–	–	–
Other currencies	–	–	26	–	–	26
	<b>28,844</b>	<b>17,869</b>	<b>13,529</b>	<b>27,832</b>	<b>17,743</b>	<b>12,944</b>

**Note 20 Related party transactions**

The Group owns 50% of TwoPac AB and reports this holding as an associated company. The following transactions have been carried out with TwoPac AB:

	2008	2007	2006
Interest income	285	304	227
Conditional shareholder contributions rendered	2,000	500	2,900
Conversion of loan to conditional shareholder contribution	–	1,000	–
Advance payment converted to shareholder contribution	600	–	–
Purchase of goods	8,952	2,259	527
Advance payment for future delivery	–	600	–
Purchase of plant and equipment	221	1,195	–

Goods are purchased at cost plus profit margin.

**The closing balances at 31 December 2007 were as follows:**

	2008	2007	2006
<b>Non-current receivables from related parties</b>			
Non-current receivables from TwoPac AB	4,400	4,400	5,400
	<b>4,400</b>	<b>4,400</b>	<b>5,400</b>

For long-term receivables from TwoPac AB, see also Note 16 and Note 23.

	2008	2007	2006
Current balance from related parties			
Current receivables from TwoPac AB	65	85	65
Current liabilities from TwoPac AB	–118	–	–44
	<b>–53</b>	<b>85</b>	<b>21</b>

Annwall & Rothschild Investment AB holds 740,668 class A shares and 2,001,391 class B shares, corresponding to 15.9 % of the share capital and 39.4 % of the votes. Annwall & Rothschild Investment AB is owned by Peter Rothschild and Jan Annwall, who are Managing Director and Deputy Managing Director of the Parent Company. No transactions have taken place between BioGaia and Annwall & Rothschild Investment AB.

For further information, please see Note 5 Employees and personnel expenses, remuneration to senior executives.

#### ■ Note 21 Other receivables

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
VAT refund	1,594	1,506	928	918	893	893
Tax asset	461	558	402	402	386	386
Other receivables	78	1,319	435	106	3,480	3,465
	<b>2,133</b>	<b>3,383</b>	<b>1,765</b>	<b>1,426</b>	<b>4,759</b>	<b>4,744</b>

At 31 December 2006, the amount for "other receivables" included a receivable from one of the company's suppliers related a product return. The receivable was paid in 2007.

#### ■ Note 22 Prepaid expenses and accrued income

	2008		2007		2006	
	Group	Parent Company	Group	Parent Company	Group	Parent Company
Accrued income	1,506	1,506	3,407	3,407	1,909	1,909
Prepaid rents	558	558	493	493	439	439
Other prepaid expenses	1,506	1,319	3,700	3,427	428	426
	<b>3,570</b>	<b>3,383</b>	<b>7,600</b>	<b>7,327</b>	<b>2,776</b>	<b>2,774</b>

#### ■ Note 23 Short-term investments

	2008	2007	2006
Opening balance	620	830	–
Additions	–	–	830
Write-down to market value	–540	–210	–
<b>Closing balance</b>	<b>80</b>	<b>620</b>	<b>830</b>

This item refers to listed securities. The shares have been valued at the quoted market price on the balance sheet date. The intention is to sell the shares when an appropriate occasion arises.

#### ■ Note 24 Financial assets and liabilities

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

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

The Group's assets measured at fair value through profit or loss consist of cash and cash equivalents. The financial assets are recognised in the balance sheet and are measured at the closing day rate of exchange.

Assets (SEK 000s)	2008		2007		2006	
	Fair value	Carrying amount	Fair value	Carrying amount	Fair value	Carrying amount
Cash and cash equivalents in SEK	52,537	52,537	39,772	39,772	37,091	37,091
Cash and cash equivalents in EUR	2,979	2,979	1,516	1,516	1,050	1,050
Cash and cash equivalents in USD	969	969	910	910	1,103	1,103
Cash and cash equivalents in JPY	1,132	1,132	591	591	345	345
Cash and cash equivalents in DKK	510	510	188	188	130	130
Current investments	80	80	620	620	830	830
<b>Total assets</b>	<b>58,207</b>	<b>58,207</b>	<b>43,597</b>	<b>43,597</b>	<b>40,549</b>	<b>40,549</b>

##### Held-to-maturity investments

The Group has not held-to-maturity investments.

##### Loans and receivables

The Group's holdings of loans refer to the associated company. The loan to the associated company is valued at amortised cost. The loan is a revolving credit facility that is extended by periods of 12 months at a time. The loan is expected to be repaid within four years.

	2008	2007	2006
	Carrying amount <sup>1)</sup>	Carrying amount <sup>1)</sup>	Carrying amount <sup>1)</sup>
Loan to associated company	4,400	4,400	5,400
Trade receivables	28,844	17,869	13,529
Current receivable from associated company	–	85	21
<b>Total loans and receivables</b>	<b>33,244</b>	<b>22,354</b>	<b>18,950</b>

<sup>1)</sup> Fair value corresponds to the carrying amount. The maximum credit risks are equal to the reported amounts.



### ■ Note 29 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 minimise the risk for negative effects on the Group's earnings. Consequently, the Group's financial investments must have a low risk profile. The Group's assessed risk exposure and related risk management are described below:

#### Currency risk

BioGaia has revenue and expenses primarily in the currencies SEK, EUR, USD and DKK. In 2008 the company had a cash flow surplus of approximately EUR 6,600,000 (4,200,000), a cash flow deficit of USD 440,000 (475,000) and a cash flow surplus of DKK 3,400,000 (4,700,000). The increase in sales has also led to increased currency risk, for which reason the company has taken currency hedges in EUR. At 31 December 2008 the company had forward exchange contracts for a total of EUR 4.6 million at an average exchange rate of SEK 9.84. All foreign exchange contracts mature in 2009.

#### Interest rate risk

The Group has no interest rate risk.

#### Credit risk

BioGaia's credit risks are attached to trade receivables and the loan to the associated company. When signing agreements with new customers, BioGaia always carries out an assessment of the customer's financial position. For existing customers, credit limits are assigned in order to minimise risks. The loan to the associated company TwoPac AB has been used to develop machinery for production of delivery systems (BioGaia's probiotic straw and LifeTop Cap). TwoPac's primary operations are development of production machinery and manufacturing of BioGaia's probiotic drops, straws and LifeTop Cap. The Company's assessment is that TwoPac will show good profitability, and that the loan therefore entails no credit risk.

#### Liquidity risk

Excess liquidity is normally invested at bank interest rates or in fixed-income securities with a high credit rating.

#### Cash flow risk

In 2008 BioGaia had a positive cash flow from operating activities before change in working capital, amounting to SEK 32.4 million (15.8). After changes in working capital, cash flow was SEK 19.2 million (5.1). Total cash flow for the year was SEK 14.4 million (3.3). Because cash and cash equivalents at 31 December 2008 amounted to SEK 58.1 million (43.0) and cash flow is positive, no infusion of capital is necessary.

#### Price risk

BioGaia purchases most of its goods in an international market with several alternative suppliers, which reduces the Company's price risk.

### ■ Note 30 Critical accounting estimates and assumptions

Certain sources of uncertainty in accounting estimates and assessments are described below.

#### BioGaia's Japanese venture

The previously chosen business model in Japan was associated with significant cost risk. Measures have now been taken to change the business model. On the balance sheet date, assets in the Japanese subsidiary were reported at SEK 3.5 million in the Group. The company's assessment is that there was no indication of impairment of these assets on the balance sheet date.

#### Participations in associated company and receivable from associated company

The shares in the associated company and the receivable from the associated company amount to a total of SEK 12.3 million (10.0) in the Group and in the Parent Company. The associated company TwoPac AB's primary operations are development of production machinery and manufacturing of BioGaia's probiotic drops and straws and LifeTop Cap on behalf of BioGaia. The current market downturn is no indication of a decrease in value, since demand for health products is normally not strongly affected by changes in the market cycle. Furthermore, no other indications of a decrease in value are deemed to exist.

BioGaia's assessment is that the cash flow from TwoPac will generate good profitability, for which reason no impairment loss was recognised on the balance sheet date. Should the investment in TwoPac fail in full or in part, BioGaia may be forced to recognise an impairment loss on all or parts of the holding in and receivables from the associated company. A total impairment loss would correspond to 9.3% of equity in the Group and 9.8% of equity in the Parent Company.

#### Intangible assets

In the previous year's financial statements, capitalized costs for the LifeTop Cap project were described as an uncertain factor. In the autumn of 2008 a new subsidiary was formed to intensify the focus on LifeTop Cap. Two new agreements were signed in December and January, for which reason no uncertainty relating to LifeTop Cap is considered to exist.

The Board of Directors and the Managing Director hereby give their assurance that the consolidated financial statements and annual report have been prepared in accordance with the international accounting standards covered in Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of July 19, 2002, on the Application of International Accounting Standards and Generally Accepted Accounting Standards, 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, 19 February 2009**

David Dangoor  
*Chairman*

Peter Rothschild  
*Managing Director*

Jan Annwall

Stefan Elving

Thomas Flinck

Inger Holmström

Jörgen Thorball

Paula Zeilon

My audit report was submitted on 19 February 2009

Lena de Rosche  
*Authorised Public Accountant*  
Grant Thornton Sweden AB

## Audit Report

**To the general meeting of shareholders in BioGaia AB (publ.) Corp. reg. no. 556380-8723**

I have audited the annual accounts, the consolidated accounts, the accounting records and the administration of the Board of Directors and the Managing Director of BioGaia AB (publ) for the financial year 2008. The Company's annual report and consolidated financial statements are included in the printed version of this document on pages 1-24. These accounts and the administration of the Company as well as the application of the International Financial Reporting Standards (IFRS) adopted by the EU and the Annual Accounts Act when preparing the annual accounts and the consolidated accounts are the responsibility of the Board of Directors and the Managing Director. My responsibility is to express an opinion on the annual accounts, the consolidated accounts and the administration based on my audit.

I conducted my audit in accordance with generally accepted auditing standards in Sweden. Those standards require that I plan and perform the audit to obtain reasonable but not absolute assurance that the annual accounts and the consolidated accounts are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the accounts. An audit also includes assessing the accounting principles used and their application by the Board of Directors and the Managing Director and significant estimates made by the Board of Directors and the Managing Director when preparing the annual accounts and consolidated accounts as well as evaluating the overall presentation of information in the annual accounts and the consolidated accounts. As a basis for my opinion concerning discharge from liability, I examined significant decisions, actions taken and circumstances of the Company in order to be able to determine the liability, if any, to the Company of any Board member or the Managing Director. I also examined whether any Board member or the Managing Director has, in any other way, acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association. I believe that my audit provides a reasonable basis for my opinion set out below.

The annual accounts have been prepared in accordance with the Annual Accounts Act and give a true and fair view of the Company's financial position and results of operations in accordance with generally accepted accounting principles in Sweden. The consolidated accounts have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and the Annual Accounts Act and give a true and fair view of the Group's financial position and results of operations. The statutory administration report is consistent with the other parts of the annual accounts and the consolidated accounts.

I recommend to the Annual General Meeting of shareholders that the income statements and balance sheets of the Parent Company and the Group be adopted, that the profit of the Parent Company be dealt with in accordance with the proposal in the administration report and that the members of the Board of Directors and the Managing Director be discharged from liability for the financial year.

Stockholm, 19 February 2009

Lena de Rosche  
*Authorised Public Accountant*  
Grant Thornton Sweden AB

## Five-year summary

### Key ratios

	2008	2007	2006	2005	2004
Net sales, SEK 000s	145,190	106,580	86,792	59,606	40,438
Result before tax, SEK 000s	24,030	10,689	2,720	-19,825	-23,250
Net result, SEK 000s	36,121	19,659	2,720	-19,825	-23,250
Growth, %	36	23	46	47	13
Operating margin, %	18	8	2	-35	-71
Current ratio, times	5.1	5.1	4.1	4.1	7.9
Equity/assets ratio, %	86	86	82	82	84
Capital employed, SEK 000s	132,420	94,910	74,530	74,763	94,486
Return on capital employed, %	25	13	4	-23	-21
Return on equity, %	32	23	4	-24	-23
Average number of employees	39	37	34	33	33

### Data per share

Number of shares at 31 Dec., thousands <sup>1)</sup>	17,208	17,208	17,208	17,208	17,208
Average number of shares, thousands	17,208	17,208	17,208	17,208	17,188
Number of outstanding warrants, thousands	129	129	-	-	-
Number of outstanding warrants with a dilution effect, thousands	-	-	-	-	-
Number of outstanding shares including outstanding warrants with a dilution effect, thousands	17,208	17,208	17,208	17,208	17,188
Earnings per share (average number of shares), SEK	2.10	1.14	0.16	-1.15	-1.35
Earnings per share after dilution, SEK	2.10	1.14	0.16	-1.15	-1.35
Equity per share, SEK	7.69	5.52	4.33	4.17	5.32
Equity per share after dilution, SEK	7.69	5.52	4.33	4.17	5.32
Share price on closing day, SEK	33.10	27.80	40.50	19.30	13.40
Dividend per share, SEK	0.40 <sup>2)</sup>	-	-	-	-

<sup>1)</sup> The share capital consists of 740,668 class A shares and 16,466,894 class B shares.

<sup>2)</sup> Dividend proposed but not yet approved.

## Definitions

### Capital employed

Balance sheet total minus interest-free liabilities.

### Current ratio

Total current assets divided by current liabilities.

### Earnings per share

Profit/loss before extraordinary items less tax, divided by the weighted average number of shares.

### Earnings per share after dilution

Profit/loss in relation to the weighted average number of shares plus the number of outstanding warrants with a dilution effect.

### Equity/assets ratio

Shareholders' equity divided by total assets.

### Equity per share

Shareholders' equity divided by the average number of shares.

### Equity per share after dilution

Shareholders' equity divided by the number of shares plus the number of outstanding warrants with a dilution effect.

### Growth

Annual sales less preceding year's sales, divided by preceding year's sales.

### Operating margin

Operating profit or loss plus/minus one-time items in relation to sales.

### Return on capital employed

Profit/loss before financial items plus financial income, divided by average capital employed.

### Return on equity

Profit/loss after financial items less tax, divided by average shareholders' equity.

## Corporate governance report

### Corporate governance in BioGaia

BioGaia is a Swedish public limited company whose class B shares are listed on the small caps list of the Nasdaq OMX Nordic Exchange Stockholm. The company's operations are governed by the General Meeting of Shareholders, the Board of Directors and the Managing Director in accordance with the Swedish Companies Act, the Articles of Association and the Swedish Code of Corporate Governance.

### Articles of Association

According to BioGaia's Articles of Association, the Company shall engage in the import, development, production and marketing of pharmaceuticals, natural health products, animal feed and food 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 "Corporate Governance".

### General Meeting of Shareholders

The General Meeting of Shareholders is the highest decision-making body through which the shareholders exercise their influence over the Company. The Annual General Meeting (AGM) elects the members of the Board of Directors. The responsibilities of the AGM also 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 Managing Director.

#### 2008 AGM

The 2008 AGM of BioGaia was held on 22 April 2008 and was attended by shareholders representing 42.3% of the total number of votes in the Company. The AGM was also attended by the Company's Managing Director, the Board members elected by the previous AGM (aside from one retiring member), all of the Board members elected by the year's AGM and the Company's independent auditor.

#### 2009 AGM

The 2009 AGM will be held on Wednesday, 22 April 2009, 4:00 p.m., at World Trade Center, Kungsbron 1, in Stockholm

#### Notice of AGM

Notice of the AGM is given through an announcement in the Official Gazette (Post- och Inrikes Tidningar and Svenska Dagbladet) no earlier than six weeks and no later than four weeks prior to the Meeting.

### Nominating Committee

The tasks of the Nominating Committee are to prepare recommendations regarding election and remuneration for decision by the AGM.

The 2008 AGM resolved that the Nominating Committee would be appointed according to the following: "The Board Chairman shall convene the three largest shareholders in the company, 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 conditions on 30 June 2008. The Nominating Committee shall be chaired by the member representing the largest shareholder. If any of the three largest shareholders should waive this right, the shareholder next in order of size will be given the opportunity to appoint a member".

In accordance with the AGM's resolution, the Nominating Committee was appointed according to the ownership conditions on 30 June 2008. Annwall & Rothschild Investment AB, the largest shareholder, declined participation in the Nominating Committee, which thus consisted of Lars Hallén, the second largest shareholder, David Dangoor, Board Chairman and the third largest shareholder, and Sven Zetterqvist, representing Livförsäkringsaktiebolaget Skandia, the fourth largest shareholder. The Nominating Committee has appointed Sven Zetterqvist as its chairman, since Lars Hallén will be unable to attend the upcoming AGM.

The Nominating Committee will prepare recommendations for the following matters to be put before the 2009 AGM for resolution: recommendations for election of the Chairman of the AGM, Board of Directors and Board Chairman, recommendation of fees for the members of the Board and auditors, and recom-

mendations regarding appointment of the Nominating Committee ahead of the 2010 AGM.

In 2008 the Nominating Committee held one meeting and maintained continuous informal contact. No remuneration has been paid to the members for their work on the Nominating Committee.

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

### 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. In 2008 the Board has consisted of seven members elected by the AGM with no deputies. One Board member, Jan Annwall, a member of the Board since 1990, is employed by the Company and is also a major shareholder. The six remaining members are independent from both the Company and its management. A presentation of the Board is provided on page 30.

BioGaia's independent legal counsel has been appointed to serve as Secretary at Board meetings. The Managing Director is not a member of the Board but is a co-opted member of 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 includes instructions for the division of responsibilities between the Board and the Managing Director and the structure of Board activities during the year. Furthermore, the Board has adopted instructions for the Managing Director, authorisation instructions including instructions for liquidity management and an equality plan. The rules of procedure, Managing Director's instructions, authorisation instructions and equality plan are reviewed at least once a year.

The Board decides on matters related to the Group's overall strategy, organisation and management. The Board held seven minuted meetings and one strategy seminar in 2008. At these meetings the Board has discussed budgets, business plans, financial accounts, capital expenditure, financial reports and major agreements. The purpose of the strategy seminar was to discuss the Company's long-term strategies. Stefan Elving and Paula Zeilon were each absent from one meeting and Thomas Flinck was absent from two meetings. The other Board members attended all meetings.

The Board of Directors continuously assesses its own performance through both open discussions and a written evaluation. The results of the written evaluation are submitted to the Nominating Committee.

### Board fees

The 2008 AGM resolved that Board fees would be paid in an amount of SEK 200,000 to the Board Chairman and SEK 100,000 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 Managing Director, the Chairman continuously monitors the Company's development and ensures that the Board is provided with the information necessary to carry out its duties. David Dangoor has been Board Chairman since the 2007 AGM.

### Managing Director

The Managing Director 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 Managing Director which among other things regulate his management and development of the Company and the provision of reports and decision data to the Board. The Managing Director prepares the requisite information and decision data such as reports on the Company's finances, the order situation, significant business and strategic issues prior to Board meetings presents reports and motivates proposals for decision. Furthermore, the Managing Director continuously informs the Board Chairman about the Company's financial and business situation. Every year the Board carries out an evaluation of the Managing Director's performance in which no member of the executive management is present.

## Executive Management

BioGaia's Group Executive Management consists of the 10 individuals who are presented on page 31. The Group Executive Management is headed by the Managing Director and is responsible for planning, supervising and monitoring the Company's day-to-day operations. Minuted meetings are normally held every four weeks. The responsibilities and powers of the Managing Director are regulated by the Swedish Companies Act and by the instructions that are adopted by the Board. The responsibilities and powers of the Group Executive Management are defined in the established job descriptions and authorisation instructions.

## Remuneration Committee

The Board has appointed a Remuneration Committee consisting of the Board Chairman David Dangoor and Board member Stefan Elving. The task of the Remuneration Committee is to prepare recommendations for remuneration and other terms of employment of the Managing Director and other senior executives who together make up the Group 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 four years. The 2007 AGM elected Lena de Rosche and Ivar Verner (deputy), both from Grant Thornton Sweden AB, as the Company's auditors until the end of the 2010 AGM. 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 Managing Director and the quality of the Company's financial reporting. At the request of the Board, the auditors 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 takes part in the Board meeting preceding publication of the year-end report to present the results of their audit of the annual accounts and observations from ongoing examination of the company's internal control during the financial year.

Grant Thornton has also provided certain tax-related advice and performed other audit-related services. Disclosures about remuneration to the auditors can be found in Note 6.

In view of the Company's limited size and volume of transactions, the Board has decided not to set up any audit committee. Instead, the entire Board of Directors meets with the auditors at least once a year without the presence of the Managing Director or other member of the executive management.

## The Board's report on internal control over financial reporting for the financial year 2008

### Introduction

As stated in the Swedish Companies Act and the Swedish Code of Corporate Governance (the Code), the Board of Directors is responsible for establishing and maintaining adequate internal control. This report has been prepared in accordance with sections 10.5 and 10.6 of the Swedish Code of Corporate Governance, and is accordingly limited to internal control over financial reporting.

### Control environment

The Board is responsible for ensuring that the Company's organisation 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 Managing Director. The rules of procedure state which matters require approval or authorisation from the Board. At Board meetings, the Managing Director reports on matters requiring treatment by the Board.

The Managing Director 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 Managing Director, BioGaia's control environment is based on the Company's organisation and operating structure, in which 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.

### BioGaia's values

BioGaia also has a set of shared values and the Company's employees are well aware of these (see box below).

### BioGaia's values

- *We believe in our mission and that our natural products contribute to improving human health*
- *We aim to be innovative, fast, informal and smart problem-solvers by using conventional and unconventional methods*
- *We listen to our customers and try quickly meet their needs by building strong partnerships*
- *We strive continuously for high quality, reliability and profitability*
- *We are ethical, honest, candid and supportive in dealing with our colleagues and partners and treat them with respect*
- *We take personal responsibility for the success of the company*

### Risk assessment

The Company works continuously with risk assessment and risk management to ensure that the risks to which the Company is exposed are managed within the limits ultimately established by the Board. The executive management continuously analyses the Company's business processes with regard to efficiency and risks.

The most critical business processes and the absolutely largest values, 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 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. Authorisation instructions and policies are distributed to all employees and can be viewed on the Company's intranet. Once or twice 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. In 2008 the employees met for 2.5 days in September.

### Monitoring

The executive management performs a yearly evaluation of the effectiveness of internal control. Every year, the Company's elected auditing firm, Grant Thornton Sweden AB, also audits 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 separate internal audit function. In view of the Company's size and the volume of transactions, the Board of Directors has determined that there is no reason to set up a formal internal audit function.

### Stockholm, 19 February 2009

The Board of Directors of BioGaia AB

This corporate governance report has not been examined by the Company's independent auditor.

## The BioGaia share

Figures in brackets refer to the preceding year

### Trading volume

BioGaia AB's class B share has been quoted on the Small Cap list of the OMX Nordic Exchange Stockholm since May 1998. In 2008 the trading volume reached just over SEK 240 million (520), corresponding to approximately 7 million (13) shares.

The number of shareholders at 31 December 2008 was 6,596 (6,458).

The total registered share capital of BioGaia AB consists of 740,668 class A shares and 16,466,894 class B shares.

### Share price development

In 2008 the share price increased from SEK 27.80 to SEK 33.10. The highest closing price during the year was SEK 48.00. Market capitalisation at 31 December 2008 was approximately SEK 570 million (480).

### Dividend policy

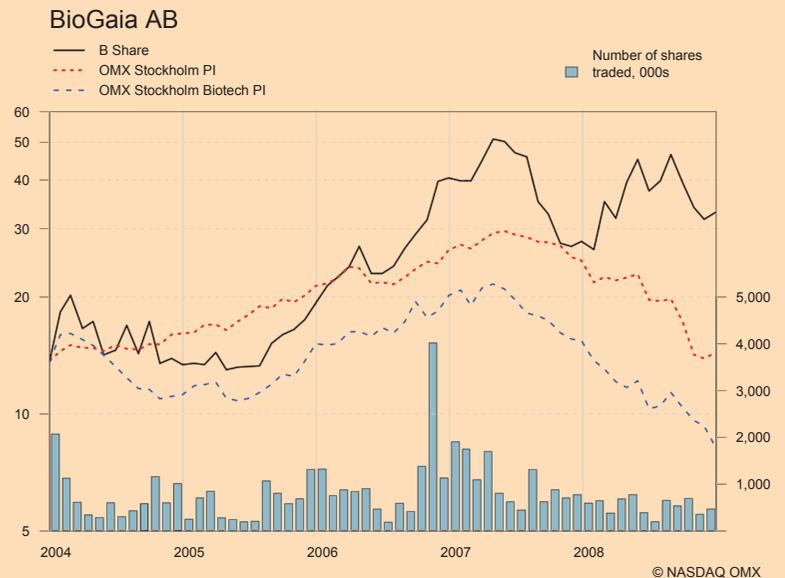
BioGaia's ambition is to pay a shareholder dividend equal to 30% of profit after paid tax

### BioGaia's incentive scheme for the employees

In June 2007 BioGaia carried out a warrant programme that was approved by the AGM. A total of 128,950 warrants were subscribed for by the employees, resulting in a dilutive effect of around 0.7% in the total number of shares and 0.5% in the total number of votes. Each warrant grants the holder the right to subscribe for one class B share for SEK 76.70 during the period from 15 May 2010 to 31 August 2010. The warrant price was calculated according to the customary valuation method (Black & Scholes model) and amounted to SEK 5.32 per warrant, which means that the employees subscribed for warrants on market-based terms. In valuation according to the Black & Scholes model, a volatility of 30% and a risk-free interest rate of 3.92% were used.

### Distribution of ownership (31 Dec. 2008)

Number of shares	Total number of shareholders 31 December 2008
1–500	4,485
501–1,000	1,089
1,001–5,000	769
5,001–10,000	111
10,001–15,000	36
15,001–20,000	18
20,000–	88
	<b>6,596</b>



## Major shareholders in BioGaia at 31 December 2008

	A shares 000s	B shares, 000s	Share capital, 000s	No. of votes, SEK 000s	Holding %	Votes %
Anrwall & Rothschild Inv. AB	741	2,001	2,742	9,411	15.9	39,4
Lars Hallén		596	596	596	3.5	2,5
David Dangoor (companies included)		569	569	569	33	2,4
Pictet & Cie W8IMY		568	568	568	3.3	2,4
Livförsäkringsaktiebolaget Skandia		511	511	511	3.0	2,1
SIX SIS AG W8IMY		354	354	354	2.1	1,5
CR Suisse Lux S A PB		329	329	329	1.9	1,4
Banco Teknik & Innovationsfond		317	317	317	1.8	1,3
Credit Agricole Suisse SA W8IMY		300	300	300	1.7	1,3
Caroline Hamilton		274	274	274	1.6	1,1
Övriga		10,648	10,648	10,648	61.9	44,6
<b>Total</b>	<b>741</b>	<b>16,467</b>	<b>17,208</b>	<b>23,877</b>	<b>100.0</b>	<b>100,0</b>

## 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	Par 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	7,879,970	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

\*Excluding underwriting costs

## Board of Directors and Executive Management



### Board of Directors

**Thomas Flinck** Born in 1948. Elected to the Board 1996. M.B.A. Managing Director and partner in Centrecourt AB. Other board assignments for Centrecourt AB and Briggen Tre Kronor AB. Holds 1,917 class B shares.

**Jan Annwall** Born in 1950. Elected to the Board 1990. M.B.A. Deputy Managing Director and CFO of BioGaia AB. Founder and principal shareholder in BioGaia AB. Holds 370,334 class A shares and 1,000,695 class B shares via Annwall & Rothschild Investments AB.

**Inger Holmström** Born in 1948. Elected to the Board in 2007. M.A. in Literary History. Consultant, self-employed. Former Corporate Communications Director at Coop Norden, Posten and Vattenfall. Other board assignments for the hotel companies Nordic Hotels, Iris AB, the design company Pangea Design, the Mannaminne tourist centre, the advertising agency Atna and the Vår Gärd conference facility. Holds 500 class B shares.

**David Dangoor** Born in 1949. **Chairman of the Board.** Elected to the Board 2003. M.B.A. Marketing and PR consultant. Managing Director of Innoventive Partners LLC. Former Vice President and Marketing Director at Philip Morris USA and Philip Morris International. Other board assignments for Lifetime Brands, Inc., New York, ICP Solar Technologies Inc. Montreal, New York City Ballet Inc., School of Creative Leadership, Berlin University, Swedish- American Chambers of Commerce (SACC NY) and American Scandinavian Foundation (ASF). Holds 518,918 class B shares and 50,000 class B shares via private company.

**Paula Zeilon** Born in 1962. Elected to the Board 2003. M.Sc.Eng. Lund Institute of Technology. Partner in Conlega Affärskonsultbolag AB. Former Marketing Director, Amersham Biosciences. Holds 0 shares.

**Jörgen Thorball** born in 1962. Elected to the Board 2008. Physician. Independent consultant. Former international senior positions in for example Aventis and Pharmacia. Other board assignments in ViroGates A/S, Lina-Medical A/S, Imotions A/S, Vivostat A/S, MyC4.com A/S and Alsensa Aps. Holds 0 shares.

**Stefan Elving** Born in 1941. Elected to the Board 2001. Former Marketing Director and Deputy Managing Director of ICA Handlarnas AB. Other board assignments for Arcus AS, Macks AS and Svanströms. Holds 0 shares.



## Executive Management

### Peter Rothschild

Born in 1950, M.B.A.  
President, founder and principal shareholder. Board assignments in Looft Industries AB. Holds 370,334 class A shares and 1,000,695 class B shares via Annwall & Rothschild Investments AB and 50,000 class B shares privately.

### Eamonn Connolly

Born in 1957, Ph.D.  
Senior Vice President Research. Employed by the Company since 2000, in current position since 2002.  
Holds 5,000 warrants.

### Urban Strindlöv

Born in 1964, mechanical engineer.  
Senior Vice President Oral Health. Employed by the Company since 2004. Board assignments in Europaporten Kongresscenter AB and Loppet Fastighetsförvaltning AB. Holds 10,000 warrants.

### Jan Annwall

Born in 1950, M.B.A.  
Executive Vice President, founder and principal shareholder.  
Holds 370,334 class A shares and 1,000,695 class B shares via Annwall & Rothschild Investments AB.

### Margareta Hagman

Born in 1966, M.B.A.  
Senior Vice President Accounting & Administration. Employed by the Company since 1996.  
Holds 5,068 class B shares and 7,000 warrants.

### Cristián Contreras Ruiz-Tagle

Born in 1968, M.B.A.  
Vice President Marketing. Employed by the Company since 2006, in current position since 2008.  
Holds 2,500 class B shares and 7,000 warrants.

### Bo Möllstam

Born in 1952, M.B.A.  
Director of Intellectual Property. Employed by the Company since 1990, on a consulting basis since 2003.  
Holds 87,500 class B shares.

### Jonas weimer

Born in 1971, M.B.A.  
Vice President Sales. Employed by the Company since 1998, in current position since 2008.  
Holds 11,000 class B shares and 6,000 warrants.

### Björn Lindman

### Kristina Silverio

Born in 1946, Ph.D.  
Senior Vice President Quality Assurance & Regulatory Affairs. Employed by the Company since 1999, in current position since 2002.  
Holds 0 shares.

### Jonas weimer

### Kristina Silverio

Born in 1964, M.Sc. Eng  
Vice President Production & Product Development  
Employed by the Company since 2003. In current position since 2005.  
Holds 0 shares.

## Auditors

### Lena de Rosche

Born in 1954.  
Authorised Public Accountant, Grant Thornton Sweden AB.  
Auditor for BioGaia AB since 2003.

### Deputy Auditor

### Ivar Verner

Born in 1947.  
Authorised Public Accountant, Grant Thornton Sweden AB.

The annual report will be distributed to all shareholders. The year-end report, annual report and quarterly reports are also available in English. All financial information is published on [www.biogaia.com](http://www.biogaia.com) and can be ordered from BioGaia's head office

**Head office of  
BioGaia AB**  
Kungsbroplan 3A  
Box 3242  
SE-103 64 Stockholm  
Sweden  
Tel +46 8 555 293 00  
Fax +46 8 555 293 01  
E-mail: [info@biogaia.se](mailto:info@biogaia.se)  
[www.biogaia.com](http://www.biogaia.com)

**BioGaia AB**  
Stora Södergatan 47  
Box 966  
SE-220 09 Lund  
Sweden  
Tel +46 46 31 19 00  
Fax +46 46 31 19 01

**BioGaia Biologics Inc.**  
6213 -D Angus Drive,  
Raleigh NC 27 617, USA  
Tel +1 919 782 3312  
Fax +1 919 783 6940  
E-mail: [info@biogaia.com](mailto:info@biogaia.com)

**BioGaia Japan Inc.**  
3-17 Komachi, Naka-Ku  
730-0041 Hiroshima City  
Japan  
Tel +81 82 244 5021  
Fax +81 82 244 5022