

**Annual Report** 2017

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# About Karolinska **Development**

Karolinska Development (Nasdag Stockholm: KDEV) is an investment company which offers a unique opportunity to share in the growth in value of a number of Nordic life sciences companies with high commercial potential, nine of which have projects in the clinical development or early launch phase. Clinical phase II results are expected for presentation by six of the portfolio companies' projects in 2018 and early 2019, offering the potential for substantially increased opportunities for attractive divestments or licensing deals. Comparable candidate drugs have, in recent years, been out-licensed or sold for contract values of between SEK 1.6 and 5.3 billion for the individual projects. The portfolio companies have been strengthened in the past year through the recruitment of senior executives with a documented ability to close international business deals in the life sciences sector.





# The year in brief

# Key events in 2017

Positive full-year result of

SEK 180
MILLION

The total fair value of the portfolio increased by

76% to SEK 714 million

divestments

The equity/assets ratio improved from

7% to 40%



SEKm	2017	2016
Net profit/loss	179.6	-216.8
Cash, cash equivalents and short-term investments	169.6	248.1
Earnings per share, (SEK)	2.9	-4.1
Net asset value per share (SEK)	4.3	0.7
Equity per share (SEK)	4.2	0.6
Share price (SEK)	5.8	6.0
Investments in portfolio companies	91.9	28.9
Total Portfolio Fair Value	714.0	405.2
Net Portfolio Fair Value	447.8	149.4

# Our starting point for 2018

- KD's portfolio companies have six projects where phase II data is expected in 2018 and early 2019;
- Based on available data, the potential for positive phase II data from the projects in question is between 27 and 50%, depending on therapeutic indication area;<sup>1</sup>
- A number of deals have been completed for comparable projects where the contract values of the individual projects vary between SEK 1.6 and 5.3 billion.<sup>2</sup>
- Phase II success rates per disease area. Source: Hay, Michael, et al. "Clinical development success rates for investigational drugs." Nature biotechnology 32.1 (2014): 40.
- 2. Deal information obtained from BCIQ: BioCentury Online Intelligence.

# The path to market for life science products

# The various stages of pharmaceutical development

Developing a new pharmaceutical product takes a long time and demands substantial investments. It takes an average of 12 years to translate a new scientific theory into a registered pharmaceutical. The risk of an individual product failing to make it to market is high – only around 10% of the projects that start phase 1 trials make it to market. Commercialising the project can also prove difficult, whether the intention is to achieve this via out-licensing during development or through an in-house launch. The enormous potential for growth in value in those companies that achieve success is, of course, the reason why there is, nonetheless, considerable interest in investing in smaller life science companies. A number of licensing agreements with contract values of between SEK 1.6 and SEK 5.3 billion<sup>3</sup> have been signed in recent years for project that are comparable with those being conducted by Karolinska Development's portfolio companies.

- 1. https://www.fass.se/LIF/menydokument?userType=2&menyrubrikId=3204
- https://www.bio.org/sites/default/files/Clinical%20Development%20Success%20Rates%20 2006-2015%20-%20BIO,%20Biomedtracker,%20Amplion%202016.pdf
- 3. Deal information obtained from BCIQ: BioCentury Online Intelligence

# 1. Preclinical research 2. Preclinical development

on a small scale, and

tested in a range of experimental models. The objective is to designate one or more candidate drugs with the desired properties for further development.

· Officially regulated Research and development activities preclinical trials to carried out in a laboratory ensure that a candidate setting. Potential target drug has the properties structures for new required for it to be pharmaceuticals are suitable for progression identified. Chemical or to clinical trials on biological compounds humans. Ensuring that with the ability to influence the compound has a these target structures are good safety profile is an characterised, produced important component of

this process.

# 3. Phase I studies

Conducted on healthy test subjects to determine whether the candidate drug behaves in the same way in the body as that indicated in preclinical trials.

Documentation of the safety profile of the compound is, once again, the focus of this phase.

#### 4. Phase II studies

Conducted on a limited number of patients with the disease that the candidate drug is intended to alleviate or cure. The focus is on studying efficacy and safety, and on establishing data for determining the doses to be used in the phase III studies.

# 5. Phase III studies

Studies involving a substantially larger number of patients, sometimes numbering in the thousands. The results of the phase III studies form an important element of the source data required to obtain market approval from the pharmaceutical regulatory authorities.

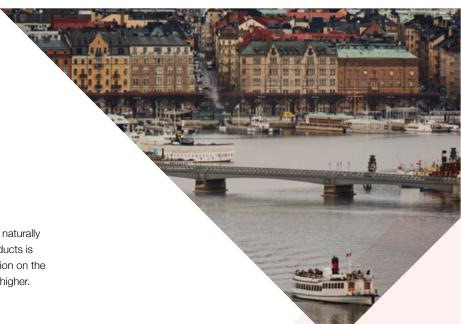
# 6. Registration process

 An application, which can comprise 100,000s of pages of documentation, is submitted to one or more pharmaceutical regulatory authorities.
 Processing an application normally takes around one year.

# 7. Market launch

If the pharmaceutical regulatory authority has approved the application, the product launch can begin. Price negotiations with the organisations that will pay for the drug must, however, be conducted first in the majority of countries.

# The path to market for life science products



# Market introduction of medtech products

Medtech products comprise everything from sticking plasters to radiotherapy equipment, and the commercialisation processes naturally differ in line with the type of product. One of the key differences between the development of medtech and pharmaceutical products is that medtech products do not usually undergo the formal clinical development phases (phase I-III studies) described in the section on the previous page. Another difference lies in the fact that the development risk is generally lower while the commercialisation risk is higher. Fewer projects fall by the wayside, but the market launch process is often more drawn out than for pharmaceuticals.

The official approval requirements for medtech products depend on the control level required to determine the product's safety and efficacy, or its similarity to previously approved products.

#### Approval process in the USA

In the USA, the products are divided into three categories. Class I products require no formal approval, class II products are only required to show that they are equivalent to a previously approved product, while class III products must obtain Pre-Market Approval (PMA) before launch. In the latter case, clinical studies supervised by the US regulatory authority, the FDA, are required.

## Approval process in the EU

In the EU, the majority of products must be CE-labelled before sales may commence. The CE-labelling (Conformité Européenne) system requires the manufacturer to confirm that the product meets regulatory requirements. A product that achieves CE-labelling in one country has access to the entire EEA market. In many cases, the manufacturer can carry out all of the tests and investigations required to demonstrate the product's regulatory compliance. If the products are associated with specific risks, the manufacturer is required to engage an independent certification organisation, known as a "notified body".

#### **Subsidies**

Once it has been approved, the product can be marketed and used, but a strong sales performance will usually require the health care provider to receive subsidies from government bodies or private insurance companies. The process of obtaining the go-ahead from the payers can be both complicated and drawn out. Health economic evaluations have become an increasingly important factor in obtaining payment for medtech products.



One of the key differences between the development of medtech and pharmaceutical products is that medtech products do not usually undergo the formal clinical development phases

# Karolinska Development's business strategy

Evaluating the quality and level of innovation of a research project is difficult for investors without in-depth knowledge of the life science sphere. Furthermore, opportunities for investment in unlisted companies tend to be limited.

An investment in Karolinska Development consequently offers a unique opportunity to share in the growth in value of a number of highly innovative Nordic life-science companies with substantial commercial potential, nine of which are currently in the clinical development or early launch phase. The majority of Karolinska Development's portfolio companies are unlisted.

# Investments in ground-breaking medical innovations

Innovation level is an important parameter in evaluating the commercial potential of life science projects. Some are designed to make marginal improvements to existing treatments, whilst others are based on radically new types of compounds or technologies with the potential to dramatically improve patients' quality of life and maybe even increase the chances of a cure and survival. Karolinska Development only invests in the latter project category.

## Focusing on commercialisation

Evaluating the companies' ability to commercialise the projects is equally important. Karolinska Development focuses on optimising the portfolio companies' potential for commercialising their projects, and the past year has seen the portfolio companies strengthened through the recruitment of senior executives with a documented ability to close international business deals in the life sciences sector.

#### Development strategies to reduce risk

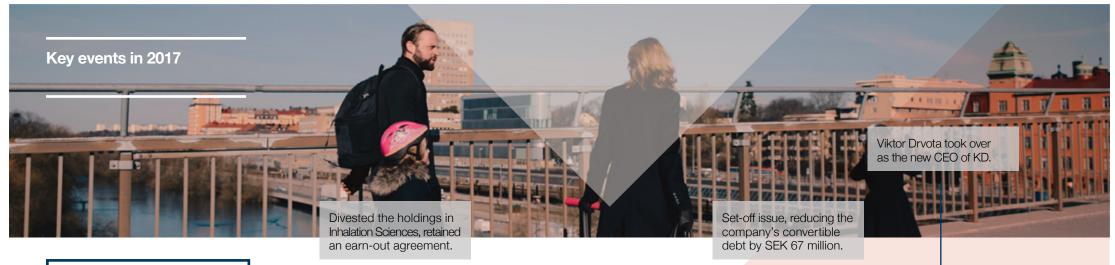
Karolinska Development has long-established processes for minimising the risk that the results of clinical trials fail to live up to justifiable expectations. The portfolio companies receive professional support throughout the process of optimising the design of their clinical studies, and the potential for spreading the risk by expanding therapeutic indications is subject to continuous assessment. The development strategies for the individual projects are structured in close cooperation with world-leading scientific and clinical experts.

## Financing and exit model

Karolinska Development invests in portfolio companies via syndication with other professional life science investors.

The investments in pharmaceutical projects continue until proof-of-concept is demonstrated in phase II studies, at which point the potential for entering into cash-flow generating licensing deals, trade sales, or IPOs will be examined. The reasoning here is that positive phase II data markedly increases the potential for attractive business deals. It is only when this data has been generated that it is possible to demonstrate that a candidate drug has the anticipated biological effect, thereby substantially reducing the ongoing development risk and significantly increasing the value of the project. Karolinska Development's objective for the holdings in portfolio companies within medtech is to divest at the point when the companies have launched their first product and have become cash flow-positive.





Karolinska Development Key events

February 2017

March and April 2017

June 2017

January 2017 January/ February 2017 February 2017

March 2017 August 2017

**OSS**DSIGN®

OssDsign established distribution of the company's products in Europe.

**Modus** 

Modus Therapeutics received SEK 32 million in a new share issue.



Umecrine Cognition, first patient in a phase lb/lla study for the treatment of hepatic encephalopathy.

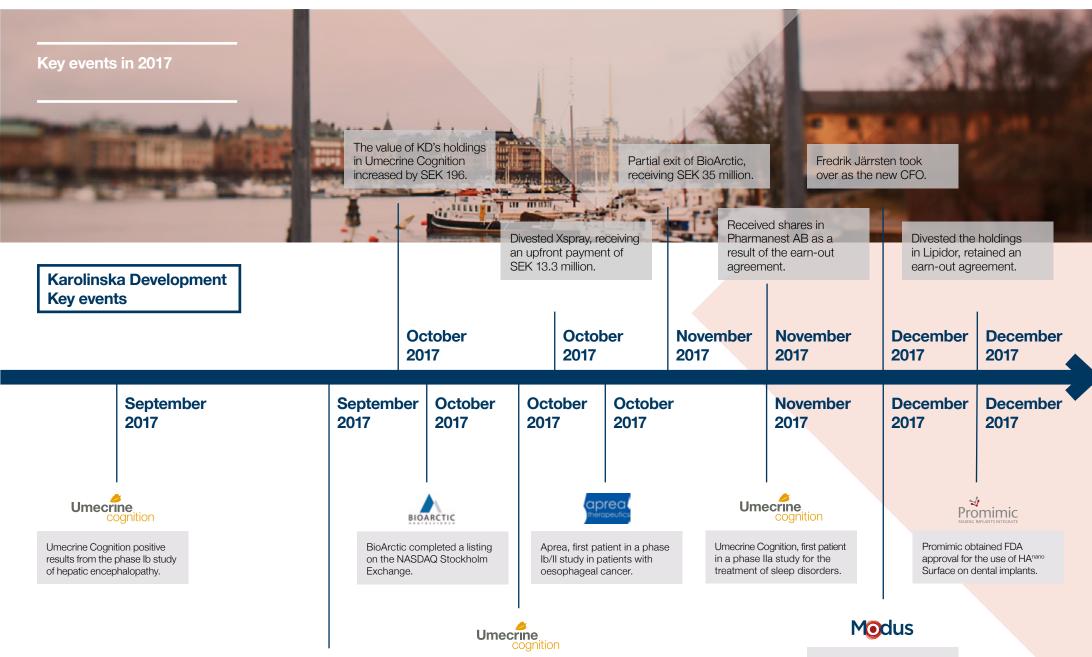


Aprea Therapeutics, first patient in a phase Ib/II study for the treatment of platinum-resistant, high-grade serous ovarian cancer.

**OSS**DSIGN®

The portfolio companies Key events

OssDsign, market approval for OSSDSGN® Cranial in the USA.



The portfolio companies **Key events** 

Xspray Pharma AB was listed on the NASDAQ First North Exchange in Stockholm.

Umecrine Cognition secured financing for development of the candidate drug for the treatment of sleep disorders.

Modus, phase I/II data demonstrating anti-adhesive properties of sevuparin published in the scientific journal PLOS ONE.

# Message from the Chief Executive Officer

Our portfolio companies' projects have made substantial progress in 2017, resulting both in an increase in the combined value of Karolinska Development's investments and in our reporting of a positive full-year result. Equally important, the progress is expected to enable read out of a number of clinical phase II results over the next twelve months, which are, in turn, expected to constitute the basis for cash flow-generating out-licensing agreements, IPOs, and divestments of our holdings. We will now continue working single-mindedly towards combining a commercial approach with the professional development of innovative life science projects, in order to maximise the value generation potential for our owners.

# Increased portfolio value and successful divestments contribute to a positive full-year result

A number of the portfolio companies' projects have made significant progress in 2017, with positive subsequent effects, such as the increase by nearly SEK 200 million in the value of our holding in Umecrine Cognition. We have also realised a successful return on the partial exit of BioArctic as well as divesting the holding in Xspray, which was received earlier as an earn-out payment. This has enabled Karolinska Development to post a positive full-year result and this, coupled with the set-off issue carried out in the first quarter, has markedly strengthened the company's equity. At the year-end, our cash position was SEK 170 million and the market capitalisation was approximately SEK 370 million.

In 2017, we invested a total of SEK 92 million in our portfolio companies out of a total of SEK 397 million invested. A sign of strength is that in the last three years, a total of SEK 971 million has been invested in the portfolio companies, of which 74% came from external investors.

Positive phase II results in 2018 may form the basis for entering into cash-flow generating licensing deals, IPOs, or

trade sales

In October, the portfolio company, BioArctic, was listed on the NASDAQ Stockholm Exchange at a price that resulted in our holding being valued at 80 times our investment in the company. After the listing, we realised part of this increase in value through a partial exit from which we received SEK 35 million. We also divested the holding in Xspray after its listing for a total of SEK 13.3 million. The latter is an example of the value that can be generated from the earn-out agreements signed in conjunction with previous divestments. In November, Karolinska Development as a result of such an earn-out agreement again became an owner in Pharmanest – a company developing a therapy for reducing pain in conjunction with gynaecological procedures. An additional earn-out agreement was signed this past autumn in conjunction with the divestment of our holding in Lipidor.

# The progress in 2017 may pave the way for important clinical results in 2018

The successful development work by our portfolio companies over the past year is expected to enable the read-out of important phase II results for a number of pharmaceutical projects as early as 2018. Assuming the outcomes are positive, these results may form the basis for entering into cash-flow generating licensing deals, IPOs, or trade sales.

Aprea is expected to present data from a phase lb/ll study of patients with platinum-resistent ovarian cancer – the most lethal form of gynaecological cancer – in 2018. The company's candidate drug has shown itself capable of reactivating mutant p53 protein – an endogenous substance that, under normal conditions, inhibits uncontrolled cell division.

**Dilafor** is developing a treatment designed to prevent complications resulting from protracted labour – a risk faced and experienced by approximately 40% of all pregnant women. Existing treatments are often inadequate, providing satisfactory results for only half of the women treated. Dilafor is conducting a phase II study of the candidate drug, tafoxiparin, and the results are expected to become available in 2018.

# Message from the Chief Executive Officer

**Modus'** candidate drug, sevuparin, is being developed to help patients with the disabling and life-threatening disease, sickle cell anaemia, live longer with a better quality of life. There is currently no treatment for the acute phases of the disease, other than analgesics. Modus is expected to complete a phase II study of its candidate drug in this patient group in 2018.

**Umecrine Cognition** is, as far as we know, the only company with a candidate drug in development for reducing the risk of disturbances in consciousness and other serious CNS-related symptoms in conjunction with hepatic encephalopathy. Positive results from a phase lb study were presented in September, resulting in an increase of SEK 196 million in the value of Karolinska Development's holding. Phase II a results are expected to become available in 2018 or early 2019.

The risk of a project failing to achieve the expected biological results is addressed by means of, amongst other things, professionally designed clinical trials, and by expanding the development work to include more than one therapeutic indication area. Aprea's broad clinical development programme, which includes numerous different forms of cancer, is one example of this approach, as is the decision by Umecrine Cognition to launch a separate study of patients with severe sleep disorders.

Karolinska Development is actively involved in the corporate governance of seven portfolio companies in the form of Board representatives. We do, however, also have a number of passive investments in our portfolio. **BioArctic** is expected to present phase II results for its project working with Alzheimer's disease in 2018, while in 2019, **Asarina Pharma** may, potentially, obtain phase II data for its candidate drug for the treatment of severe premenstrual symptoms and **Pharmanest** expects to submit a marketing authorization application during 2018 for marketing of SHACT in Europe.

# Our medtech portfolio companies have already begun commercialisation

OssDsign and Promimic – our two investments in ground-breaking medtech – continued the global launch of their products during the year. OssDsign obtained market approval in the USA for their unique, customised skull implants and also built a sales organisation there as well as signed distribution agreements with new partners in five countries. Promimic has established its own sales organisation in the USA and has several partnerships for developing and commercialising the company's technology for coating medical implants. The potential for divesting both of these holdings is increasing as the companies are able to post rising sales revenues.

# Senior executives focusing on both business and science

Both Karolinska Development and several of our portfolio companies have made changes to their executive management and Boards in 2017. I took over as CEO of Karolinska Development in June 2017, and in December, Fredrik Järrsten was appointed as our new CFO. Promimic recruited a new CEO in January, and Modus has strengthened its organisation over the course of the year in the form of a new CEO, who has a lengthy and successful career in the life sciences sector. Karolinska Development's efforts to enhance the expertise of its portfolio companies in both the scientific and commercial spheres will continue.

## A good starting point for the year ahead

I am convinced, firstly, that by combining a sound commercial approach with the professional development of innovative life science projects, we will maximise the potential for generating value for our owners, and secondly, that conditions are favourable for continued success in that:



- our portfolio companies have six projects where data from phase II or phase III studies is expected in 2018 or early 2019;
- based on available data, the potential for positive phase II data from the projects in question is between 27 and 50%, depending on therapeutic indication area;<sup>1</sup>
- a number of deals have been completed for comparable projects where the contract values of the individual projects amounted to SEK 1.6 to 5.3 billion.<sup>2</sup>

Karolinska Development's successes in 2017 have resulted in a healthy growth in value and have generated returns through divestments. And based on our success over the past year, both we and our portfolio companies are well-positioned to post strong value growth in 2018 too.

Solna, 20 March 2018

#### Viktor Drvota CEO

- Phase II success rates per disease area. Source: Hay, Michael, et al. "Clinical development success rates for investigational drugs." Nature biotechnology 32.1 (2014): 40.
- 2. Deal information obtained from BCIQ: BioCentury Online Intelligence

# Financial position in brief



Karolinska Development's investments in the portfolio companies during the period January–December 2017 totalled SEK 91.9 million (SEK 28.8 million in 2016), of which SEK 87.3 million comprised cash investments and SEK 4.6 million comprised non-cash investments (interest on outstanding loans). Investments from external stakeholders totalled SEK 304.9 million. BioArctic also raised SEK 600 million through a new share issue in conjunction with the company's flotation on the NASDAQ Stockholm Exchange.

#### The portfolio fair value

The total fair value of portfolio companies owned both directly by Karolinska Development and indirectly via KDev Investments increased by SEK 309 million in 2017 to SEK 714 million. The primary reason for the increase was the increase in the fair value of Umecrine Cognitions by SEK 212.9 million in response to the positive phase lb study. The additional increase in value was related to investments in the portfolio companies.

The increase in the fair value of the part of the portfolio owned via KDev Investments resulted in an increase in the potential dividend to Rosetta Capital by SEK 10 million to SEK 266.2 million. This, in turn, resulted in a net increase in the fair value of the portfolio by SEK 299 million in 2017 to SEK 447.7 million.

# Effect on the profit/loss of the increase in portfolio value, January – December 2017

The profit/loss item, Changes in portfolio fair value, includes the difference between the increase in the net fair value of portfolio companies of SEK 299 million and investments in the portfolio companies totalling SEK 91.9 million. The profit/loss on the

divestments of the Xspray holding and the partial exit from BioArctic, both of which occurred in the fourth quarter, are also included. The total result of the Changes in portfolio fair value, via the Income Statement, was SEK 252.1 million (-146.5).

# The Investment Entity's revenues and profit/loss

Revenues totalled SEK 2.5 million during the year (SEK 5.4 million in 2016) and primarily comprised income from services provided to portfolio companies.

The Investment Entity's operating profit/loss totalled SEK 224.6 million (SEK -174.0 million in 2016). The principal reason for the improvement in the profit/loss is the improved profit/loss from Changes in portfolio fair value to SEK 252.1 million (SEK -146.5 million in 2016).

The Investment Entity's profit/loss for the full year of 2017 totalled SEK 179.6 million (SEK -216.8 million in 2016), or SEK 2.9 per share in 2017 (SEK -4.1 per share in 2016).

## **Financial position**

The Investment Entity's equity totalled SEK 271.2 million on 31 December 2017 (SEK 29.8 million on 31 December 2016). The increase was due to a combination of the profit/loss for the full year of 2017 of SEK 183.7 million and the increase in equity resulting from the set-off issue completed during the first quarter of 2017.

On 31 December 2017, after payment of the fourth quarter's operating expenses and investments, cash and bank balances, together with short-term investments totalled SEK 169.6 million (SEK248.1 million at the end of 2016). Total assets amounted to SEK 667.3 million (SEK 438.3 million in 2016).

By the end of 2017, the majority of the portfolio companies were financed up to the next value-generating milestone and Karolinska Development is consequently of the opinion that the current cash equivalents and short-term investments are sufficient to cover follow-up investments in the existing portfolio companies, ongoing costs, and new investments.

# Equity/assets ratio and net asset value

The equity/assets ratio of the Investment Entity increased by 33 percentage points to 40% by 31 December 2017 (7% on 31 December 2016). The net asset value amounted to SEK 4.4 per share at the end of 2017 (SEK 0.7 per share at the end of 2016).

# **Accounting principles**

Karolinska Development is an Investment Entity as defined in IFRS 10, Consolidated Financial Statements, which affects financial years commencing 1 January 2014 or later.



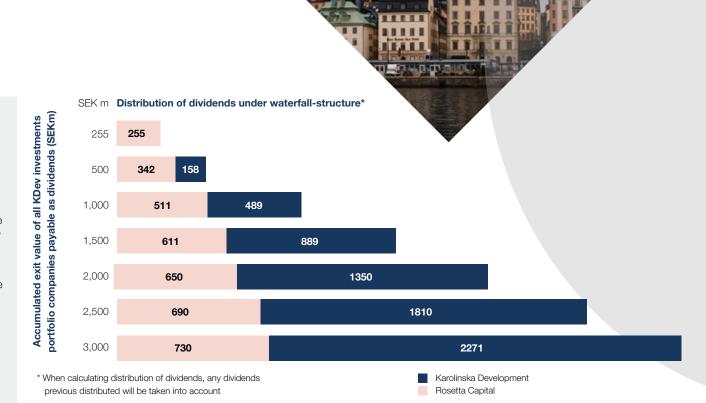
# Key components to understand the value of Karolinska Development

## What does "fair value" mean?

Calculations of the fair value of the portfolio are based on the provisions of IFRS 13 and the International Private Equity and Venture Capital Valuation Guidelines (IPEV Valuation Guidelines), which were adopted by IPEV and represent current best practice on the valuation of private equity investments. The fair value of the portfolio is divided into "Total portfolio fair value" and "Net portfolio fair value".

**Total portfolio fair value** is the aggregate return that would be obtained by Karolinska Development and KDev Investment if the shares in the portfolio companies were to be divested in an orderly transaction between market operators at the year-end.

**Net portfolio fair value** is the aggregate dividend that Karolinska Development will receive after KDev Investment's dividend payment to Rosetta Capital.



## Convertible loan

In January 2015, Karolinska Development issued convertibles with a nominal value of SEK 387 million which carry a nominal interest rate of 8%. The nominal value was reduced by SEK 58 million to SEK 329 million after a set-off issue in March 2017. The convertible falls due for payment on 31 December 2019 at the repayment amount of SEK 484 million (the interest is cumulative), or can be converted any time to shares at the request of the holder at a price of SEK 22 per class B share.

# Rosetta Capital deal

In December 2012, Karolinska Development entered into partnership with the international specialist investor, Rosetta Capital, which invested SEK 220 million in a number of portfolio companies in return for a share of the future profits from these companies. The shareholdings in the portfolio companies comprised by the agreement with Rosetta are invested in the jointly owned company, **KDev Investments AB**, which today comprises four companies: Aprea, Modus, Dilafor and Promimic. The return, including Rosetta

Capital's investments of SEK 35 million in portfolio companies, from KDev Investments' holding will be distributed in accordance with a "waterfall structure", as illustrated in the graph above. With its current shareholding, Karolinska Development's proportion of dividends will be 0% for accumulated dividends up to SEK 220 million, 65% for accumulated dividends between SEK 220 million and SEK 880 million, 75% for accumulated dividends between SEK 880 million and SEK 1,320 million, and 92% for accumulated dividends above SEK 1,320 million.

# Portfolio companies

# A focused portfolio with high commercial potential

Karolinska Development's investments in therapeutic companiesare conducted in syndicates with other professional life science investors until proof-of-concept is demonstrated in phase II trials, at which point different exit options are evaluated. For medtech companies, the business model is to finance the companies beyond break-even before realizing the investments.

Karolinska Development has a focused portfolio of therapeutic and medtech companies with significant value-generating potential. The portfolio companies are developing highly differentiated and commercially attractive products that have the potential to deliver compelling clinical and health economic benefits, as well as attractive returns on investment.

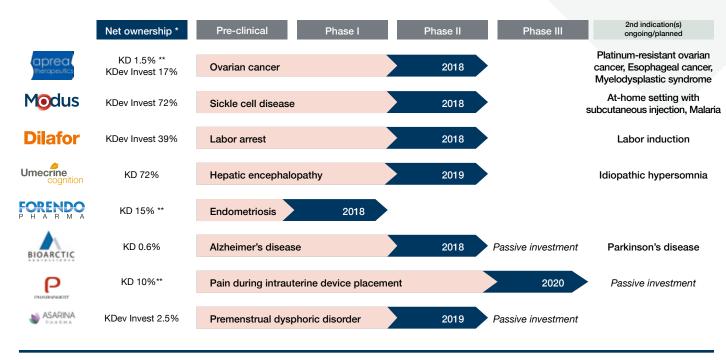
During the past years, Karolinska Development has optimized the clinical programs of the portfolio companies to reach clinically meaningful value-inflection points in 2018. Experienced leadership has been recruited to the management and boards of the portfolio companies. Furthermore, Karolinska Development has supported the financing of the portfolio companies through syndication with experienced international and domestic professional life science investors. As a result, several of Karolinska Development's portfolio companies now are financed and well positioned to deliver key value-generating clinical or commercial milestones over the next 12-18 months.

The therapeutics companies' next key value-generating milestones are expected in 2018 and early 2019, when several of the companies are supposed to present phase II proof-of-concept data. The medtech companies OssDsign and Promimic are revenue generating and have significant milestones mapped out in 2018/2019 regarding execution of their commercial strategies.

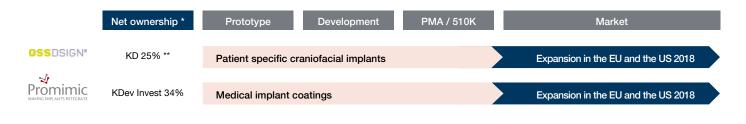
In addition to its active value creation in seven portfolio companies, Karolinska Developments has passive investments in three portfolio companies and retained economic interests in the form of earn out-agreements in additionally five life science companies.

# Our current portfolio – significant value inflection in 12 – 18 months

# **Therapeutics**



# Medtech



Earn-out agreements









Lipid or Product development

# **Aprea Therapeutics AB**



# A unique approach to treating broad range of cancers

Aprea Therapeutics (Stockholm, Sweden and Boston, US) is a biotech company developing novel anticancer compounds targeting the tumor suppressor protein p53. Mutations of the p53 gene occur in around 50% of all human tumors. These mutations are often associated with resistance to anticancer drugs and poor overall survival, representing a major unmet medical need in the treatment of cancer. Aprea's lead drug candidate APR-246 is a first-in-class compound that reactivates mutant p53 protein, inducing programmed cell death in human cancer cells.

APR-246 is currently in a phase IIa trial of a combined phase Ib/IIa clinical study (the PiSARRO study), investigating the drug candidate's safety and efficacy in combination with chemotherapy in second-line treatment of patients with platinum-sensitive high-grade serous ovarian cancer (HGSOC). The phase Ib component is complete and has established safety, tolerability and pharmacokinetics of APR-246 in combination with standard chemotherapy. The phase IIa portion of the PiSARRO study will enroll 200 up to 400 relapsed platinum-sensitive HGSOC patients in Europe and the US. Patients will be randomized between carboplatin and pegylated liposomal doxorubicin with or without APR-246; the primary endpoint for the study is progressionfree survival.

In addition to the ongoing phase IIa clinical trial in platinum-sensitive HGSOC, Aprea is enrolling three phase Ib/II studies in myelodysplastic syndrome, platinum-resistent HGSOC and esophageal cancer.

## **Project (First-in class)**

APR-246

#### **Primary indication**

Ovarian cancer

#### **Development Phase**

Phase IIa

#### Holding in company\*

Karolinska Development 1.5%\*\* KDev Investments 17%

#### Other investors

Versant Ventures (US), 5AM Ventures (US), HealthCap (Sweden), Sectoral Asset Management (Canada), KCIF Co-Investment Fund KB

#### Origin

Karolinska Institutet

#### More information

aprea.com

- \* Fully-diluted ownership based on current investment plans.
- \*\* Includes indirect holdings through KCIF Co-Investment Fund.

## Deal values for similar projects

USD 469 million MEI Pharma (licensor) & Helsinn Group (licensee)

USD 483 million Calithera Biosciences (licensor) & Incyte (licensee)



## The market

The lead target indication for APR-246 is ovarian cancer. As the 6th most common cancer in women. over 60,000 new patients are diagnosed worldwide each year. High-grade serous ovarian cancer (HGSOC) accounts for 70-80% of all deaths from ovarian cancer. Over 90% of these patients are Stage III/IV and median survival is less than four years. Approximately 60% of ovarian cancer patients, and ≥95% of HGSOC patients, have p53 mutations at diagnosis. Therefore, combination treatment of APR-246 with chemotherapy could provide significant benefit.

march

Research collaboration

First patient enrolled in: phase Ib/II study in myelodysplastic syndrome (May 2017).

may

First patient enrolled in: phase

Ib/II study in platinum-resistant

HGSOC (August 2017).

First patient enrolled in:

october

phase lb/ll study in esophageal cancer (October 2017).

Received the last tranche of SEK 188 million in a financing round of totally SEK 437 million from 2016 (October 2017).

2018

Complete recruitment into the phase IIa part of the PiSARRO study in 2018.

Results of phase IIa part of PiSARRO study expected

initiated with Memorial Sloan Kettering Cancer Center in US to further evaluate APR-246 with multiple other cancer agents across multiple tumor types (March 2017).

august

## **Dilafor AB**



# Reducing complications with childbirth

Dilafor (Solna, Sweden) is a drug development company focusing on developing tafoxiparin for obstetric indications. The company's primary goal with tafoxiparin is to decrease the incidence of slow progress of labor both after induction of labor and after spontaneous onset of labor. Tafoxiparin has shown in a phase II clinical trial encouraging evidence that it can decrease the proportion of women with labor more than 12 hours. A phase IIb dose-finding study is underway, enrolling 360 pregnant women.

Insufficient, slow progress of labor occurs in at least forty percent of all births and to an even higher degree among first-time mothers. In its most severe form, known as protracted labor, it can last more than 12 hours. Protracted labor is the main cause of emergency surgical deliveries, such as caesarian section. The condition is often associated with complications for both mother and child, which lead to serious short and long-term consequences and substantial health care costs.

The phase Ilb study aims to test tafoxiparin/placebo in addition to standard care (oxytocin infusion) in term-pregnant first-time mothers that, after spontaneous onset of labor, require labor augmentation due to primary slow progress or labor arrest, which carries a high risk of being followed by protracted labor.

Dilafor has a license and partnership agreement with Lee's Pharmaceutical, which have the right to manufacture, develop and commercialize tafoxiparin for obstetrics and gynecological indications in China, Hong Kong, Macau and Taiwan.

#### Project (First-in-class)

Tafoxiparin

#### **Primary indication**

Labor arrest

#### **Development Phase**

Phase IIb

#### Holding in company\*

KDev Investments 39%

#### Other investors

The Foundation for Baltic and East European Studies, Praktikerinvest, Rosetta Capital, Lee's Pharma

#### **Origin**

Karolinska Institutet

#### More information

dilafor.com

\* Fully-diluted ownership based on current investment plans.

#### Deal values for similar projects

USD 595 million Neurocrine Biosciences (licensor) & AbbVie (licensee)

USD 465 million Palatin Technologies (licensor) & AMAG Pharmaceuticals (licensee)



#### The market

It has been estimated that as many as 40% of all pregnant women run into complications during childbirth in the form of protracted labor, where pharmaceutical therapy is relevant. This number represents the primary target population for tafoxiparin, which indicate a substantial market potential. Existing pharmacological therapies that improve uterine contractions are usually insufficient, as they are not working well enough in up to 50% of cases. Consequently, there is strong interest in better treatments such as tafoxiparin, which has "first-in-class" potential.

2018

Complete recruitment into phase IIb dose-finding trial in 2018.

Results from phase IIb trial expected 2018.

2017  $\mid_{\mathsf{january}}$ 

Initiated a phase IIb dosefinding study with tafoxiparin in Europe (January 2017).

# **Modus Therapeutics AB**



# Targeting relief for sickle cell disease patients

Modus Therapeutics (Stockholm, Sweden) is developing sevuparin, an innovative, disease-modifying drug which has the potential to become a first-in-class treatment for sickle cell disease (SCD).

Sevuparin's anti-adhesive mechanism means it has the potential to prevent and resolve the microvascular obstructions experienced by SCD patients. These obstructions cause the severe pain experienced by patients during Vaso-Occlusive Crises (VOCs) and result in high morbidity through organ damage as well the risk of premature death.

Modus is conducting a phase II study of sevuparin in hospitalized SCD patients experiencing VOC, the results of which are expected in 2018. The trial is targeting 160 patients who are randomized to receive either an intravenous infusion of sevuparin or placebo on top of standard pain medication. This proof-of-concept study is designed to demonstrate reduced time to resolution of VOC, defined as freedom from parenteral opioid use and readiness for discharge from hospital. Secondary end-points include pharmacokinetics and safety. The study is taking place in Europe and the Middle East under a co-development deal with Ergomed, which co-invests into the trial in return for an equity stake in Modus.

Modus is also aiming to develop a presentation of sevuparin that could be self-administered by SCD patients in a timely manner to prevent VOCs developing.

#### Project (First-in-class)

Sevuparin

#### **Primary indication**

Sickle cell disease (SCD)

#### **Development Phase**

Phase II

#### Holding in company\*

KDev Investments 72%

#### Other investors

The Foundation for Baltic and East European Studies, Praktikerinvest

#### Origin

Karolinska Institutet, Uppsala University

#### More information

modustx.com

\*Fully-diluted ownership based on current investment plans.

## Deal values for similar projects

USD 665 million Novartis AG (buyer) & Selexys Pharmaceuticals (seller)

USD 340 million GlycoMimetics (licensor) & Pfizer (licensee)



## The market

SCD is an orphan disease with approximately 100,000 patients in the US and 35,000 patients in Europe. In addition to this, there is a large patient pool in the Middle East, India, South America and Africa. The average number of VOCs per patient seeking hospital care is in the order of one VOC per year. The commercial impact of a SCD treatment that reduces hospital stay and the use of opioid analgesics is expected to be substantial. A label expansion to include also the preventive treatment would expand the market size significantly.

2017 | february

SEK 32 million (USD 3.6 million) raised from existing investors (February 2017).

april

Ellen K. Donnelly, Ph.D., appointed as Chief Executive Officer (April 2017).

december

Phase I/II data demonstrating anti-adhesive properties of sevuparin published in the scientific journal PLOS ONE (December 2017). 2018

Complete recruitment into phase II proof-of-concept trial in 2018.

Results from phase II trial expected in 2018.

# **Umecrine Cognition AB**



# Unique treatment approach to **CNS-related disorders**

Umecrine Cognition (Solna, Sweden) is developing a therapy that represents a new target class for several major CNS-related disorders. The lead compound GR3027 is presently in clinical development for hepatic encephalopathy (HE), a serious neuropsychiatric and neurocognitive complication in acute and chronic liver disease (including cirrhosis). The drug candidate is also being clinically evaluated as a new treatment of idiopathic hypersomnia (IH), which is a severe orphan disease characterized by chronic excessive daytime sleepiness despite normal sleep.

An increase in the inhibitory GABA system in the CNS is believed to be a main driver for the clinical signs and symptoms in a wide range of cognitive and sleep disorders, including HE and IH. This makes GABA-receptor modulating steroid antagonists that act on the neurosteroid enhancement of GABA receptor activation, as developed by Umecrine Cognition, a credible therapeutic class to explore.

GR3027 has been shown to restore different types of neurological impairments in experimental models. The drug candidate enters the CNS and reverses the inhibitory effects of the neurosteroid allopregnanolone on brain function in humans. Positive phase Ib data from the ongoing combined phase Ib/Ila study in HE shows that GR3027 is well tolerated, does not cause any dose-limiting side effects and has a favorable pharmacokinetic profile. GR3027 is now being advanced into the phase IIa part of the study, from which results are expected in 2019. A phase IIa study in IH has been initiated, with data readout expected in 2018.

# Project (First-in-class)

GR3027

## **Primary indication**

Hepatic encephalopathy

#### **Development Phase**

Phase IIa

#### Holding in company\*

Karolinska Development 72%

#### Other investors

Norrlandsfonden. Fort knox förvaring AB, PartnerInvest

#### Origin

Umeå University

#### More information

umecrinecognition.com

\* Fully-diluted ownership based on current investment plans.

## Deal values for similar projects

USD 397 million Aerial Biopharma (licensor) & Jazz Pharmaceuticals (licensee)

USD 201 million Vernalis (licensor) & Corvus Pharmaceuticals (licensee)



## The market

HE is a severe disorder with a large unmet need. In total, liver cirrhosis affects up to 1% of US and EU populations. Between 180,000 and 290,000 patients with cirrhosis in the US are hospitalized due to complications of HE. Once HE develops, mortality reaches 22-35% after five years. HE is also associated with large societal and individual costs.

There are no approved treatments for IH but several wake-promoting agents are used off-label. However, they are inadequate to alleviate symptoms in most patients, and refractory or intolerance symptoms occur in one-quarter of patients.

march

september

SEK 20 million raised from existing investors to fund

a phase IIa study in IH

(October 2017).

october

First patient included in clinical phase IIa study in patients with IH (November 2017).

2018

Results from the phase IIa part of the combined phase lb/lla study in HE expected in 2019.

in IH expected in 2018.

First patient included in clinical phase lb/lla study with GR3027 for HE (March 2017).

Dr. Thomas P. Blackburn appointed to the Board of Directors and as Senior Development Advisor (September 2017).

Positive phase lb data for GR3027 presented (September 2017).

november

# OssDsign AB

**OSS**DSIGN®

# Commercializing the best craniofacial implants

OssDsign (Uppsala, Sweden) is an innovator, designer and manufacturer of implants and material technology for bone regeneration. Its lead products - OSSDSIGN® Cranial and OSSDSIGN® Facial - are already being sold on several European markets including Germany, the UK and the Nordic region, as well as selected non-European markets including Singapore and Israel. The company is commercializing its cranial implant in the US and a US subsidiary has been established to strengthen the market presence. OssDsign is also undertaking regulatory and commercial activities in Japan.

OssDsign's commercial strategy is focused on building sales of its innovative products through a combination of its internal sales organization and distribution partnerships, and the company is well-funded to support this strategy.

OssDsign's personalized bone regeneration technology provides improved healing properties that are clinically proven to enhance patient outcomes. By combining a regenerative ceramic material reinforced with titanium, with tailored patient-specific designs enabled by state-of-the-art computer-aided design, 3D printing and moulding techniques, the technology platform aims to contribute to the permanent healing of a range of bone defects. Enhanced healing means a better implant solution for patients and cost savings for hospitals.

#### **Project**

OSSDSIGN® Cranial and OSSDSIGN® Facial

# **Primary indication**

Cranial implants

#### **Development Phase**

Marketed

#### Holding in company\*

Karolinska Development 25%\*\*

#### Other investors

SEB Venture Capital, Fouriertransform

#### Origin

Karolinska University Hospital. Uppsala University

#### More information

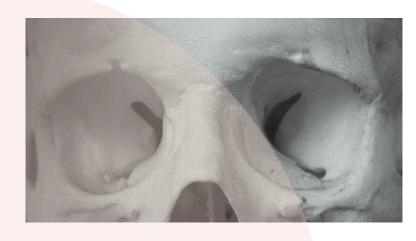
ossdsign.com

- \* Fully-diluted ownership based on current investment plans.
- \*\* Includes indirect holdings through KCIF Co-Investment Fund.

## Deal values for similar projects

USD 330 million Baxter International (buyer) & ApaTech (seller)

USD 360 million Royal DSM (buyer) & Kensey Nash (seller)



#### The market

OssDsign is focusing on the market for craniomaxillofacial (CMF) implants. The total market size was estimated to USD 1,8 billion in 2016 and is expected to grow at an CAGR of 5-9% worldwide over the five next years. The market for OssDsign's lead product in cranioplasty alone is estimated to approximately USD 200 million. OssDsign pursues a focused business strategy on a well-defined patient population. The advantages are that the targeted procedures are carried out in a limited number of easily identifiable hospitals around the world. The indications are relatively price insensitive and easy to access on many markets from a regulatory perspective.

2017 january

510(k) clearance granted by Agreement with Matador US FDA to market OSSDSIGN® Cranial in the US (January 2017).

Medical for US distribution of OSSDSIGN® Cranial (February 2017).

february

april

OSSDSIGN® Cranial presented at the American Association of Neurological Surgeons (AANS) scientific yearly meeting in Los Angeles (April 2017).

Launch of OSSDSIGN® Cranial in the US (April 2017). january

US subsidiary established

(January 2018).

Launch of OSSDSIGN® Cranial and OSSDSIGN® Facial on new EU markets and selected markets outside of Europe during 2018.

2018

signed in five countries (January 2017).

European distributor network expanded with partnerships

#### **Promimic AB**



# Coatings to enhance the properties of medical implants

Promimic (Gothenburg, Sweden) is a biomaterials company that develops and markets a unique coating for medical implants called HAnano Surface, which increases their integration into bone and anchoring strength.

The HAnano Surface is nanometer thin, which helps preserve the micro-structure of the implant and reduces the risk of cracks in the coating. The coating is unique because it can be applied to any implant geometry and material, including porous materials and 3D structures. Furthermore, the HAnano coating technology offers a fast way to market since the technology that the coating is based on has been approved by FDA, whereby a new implant coated with HAnano Surface can receive marketing approval through the 510(k) route. The coating process is easy to implement in the industrial scale production of implants.

Promimic has established a sales operation in the US and a series of development and commercial partnerships, including with Sistema de Implante Nacional (S.I.N), a leading provider of dental implants in Brazil. S.I.N. is presently preparing a US launch of dental implants coated with HA<sup>nano</sup> Surface, which has been cleared for use by the FDA. Promimic has also signed an agreement with Amendia Inc. (US) which allows Amendia to develop the HA<sup>nano</sup> Surface technology for use with Amendia's patient-focused spinal implants.

A manufacturing facility for HA<sup>nano</sup> coated implants to supply the US and Chinese markets has been established by the Promimic's partner, Danco Anodizing.

#### **Project**

HAnano Surface

#### **Primary indication**

Implant surface coatings

#### **Development Phase**

Marketed

#### Holding in company\*

KDev Investments 34%

#### Other investors

ALMI Invest, K-Svets Venture, Chalmers Ventures

#### Origin

Chalmers University of Technology

#### More information

promimic.com

\* Fully-diluted ownership based on current investment plans.

## Deal values for similar projects

USD 95 million Nobel Biocare (buyer) & AlphaBioTec (seller)

USD 120 million MAKO surgical (buyer) & Pipeline Biomedical (seller)



#### The market

Promimic is focusing on the markets for dental and orthopedic implants, which collectively represents a worldwide market opportunity for Promimic of USD 600-800 million. The implant industry is a large, high-growth market which delivers high profit margins. The competition amongst implant manufacturers is fierce and each market segment is dominated by four-to-eight global companies. The strategies of many of these companies rely on in-licensing new technologies in order to differentiate their products and strengthen their market position. Promimic has a business model designed to meet these needs. It is centered on out-licensing its HAnano Surface technology to leading implant manufacturers so that they can incorporate it into their products.

# 2017 $|_{\mathsf{january}}$

Magnus Larsson appointed as Chief Executive Officer, replacing Ulf Brogren, who relocated to the US to lead Promimic Inc. as Head of Sales (January 2017).

# december

510(k) clearance granted by US FDA to market dental implants coated with Ha<sup>nano</sup> Surface (December 2017).

2018

Further product launches and license agreements with major manufacturers during 2018.

#### Forendo Pharma Ltd



#### **BioArctic AB**



#### Pharmanest AB





Forendo (Turku and Oulu, Finland) is developing a new treatment for eliminating endometriosis while at the same time maintaining normal hormonal cycles. The potential new treatment is a HSD17B1 inhibitor, which has been shown in preclinical models to locally block formation of estrogen in endometrial tissue, cause regression of endometriosis and relief of the associated inflammatory pain without impacting the systemic estrogen levels. Clinical development is expected to begin in early 2018.



BioArctic (Stockholm, Sweden) is focusing on disease-modifying treatments and reliable biomarkers and diagnostics for neurodegenerative treatments, such as Alzheimer's disease and Parkinson's disease. The company also develops a potential treatment for complete spinal cord injury. The development of BioArctic's most advanced drug candidate BAN2401 is conducted in collaboration with the international pharmaceutical company Eisai. A phase IIb trial is currently underway in patients with Alzheimer's disease at an early stage. BioArctic is also engaged in the development of drugs against Parkinson's disease in collaboration with Abbvie.

The company was listed on Nasdaq Stockholm in 2017.



Pharmanest (Solna, Sweden) is a pharmaceutical company specialized in developing products for local pain relief in obstetrics and gynecology. The company's product, SHACT, is a proprietary formulation of lidocaine for mucosal pain relief developed for the lead indication treatment of pain during intrauterine device placement. SHACT has completed a pivotal study in the EU and a phase III study is planned in the US. The company expects to submit a marketing authorization application during 2018 for marketing of SHACT in Europe.

In 2017 Pharmanest entered a license agreement with the pharmaceutical company Gedeon Richter. This agreement gives Gedeon Richter the right to commercialize Pharmanest's SHACT technology in Europe, Latin America and other specific geographies.

#### **Project**

Inhibition of HSD17B1 enzyme

# **Primary indication**Endometriosis

**Development Phase**Preclinical

# Holding in company\*

Karolinska Development 15 %\*\*

#### Other major owners

Novo Seeds, Novartis Venture Fund, Merck Ventures, Innovestor

#### Origin

University of Turku, Finland

# More information

forendo.com

- \* Fully-diluted ownership based on current investment plans.
- \*\* Includes indirect holdings through KCIF Co-Investment Fund.

# **Project**

**BAN2401** 

## **Primary indication**

Alzheimer's disease

# **Development Phase**

Phase IIb

## Holding in company\*

Karolinska Development 0.6%

# Other major owners

Demban AB, Ackelsta AB, AP3 3rd Swedish National Pension Fund

# Origin

Karolinska Institutet

## **More information**

bioarctic.se

\* Fully-diluted ownership based on current investment plans.

# Project

SHACT

# **Primary indication**

Pain during intrauterine device placement

# **Development Phase**

Pivotal study in EU completed.

# Holding in company\*

Karolinska Development 10%\*\*

# Other major owners

The Foundation for Baltic and East European Studies, Recipharm Venture Fund, Praktikerinvest

## Origin

Karolinska Institutet

# More information

pharmanest.se

- \* Fully-diluted ownership based on current investment plans.
- \*\* Includes indirect holdings through KCIF Co-Investment Fund.

# Karolinska Development's shares and shareholders

#### **Ownership structure**

On 31 December 2017, Karolinska Development had 3,925 shareholders. The ten largest shareholders controlled 48.6% of the share capital and 57.5% of the votes. All class A shares (each of which carries 10 votes, compared to 1 vote for each class B share) are held by Karolinska Institutet Holding AB.

# **Share performance**

The closing price on the first day of trading in 2017 was SEK 6.10, and at the year end, the share traded at SEK 5.75, a decrease of 6%. No dividends have been paid in 2017.

# **Share capital**

At year-end 2017, the share capital amounted to SEK 0.6 million distributed among 64 361 206 shares. The nominal value is SEK 0.01 per share.

# **Ticker symbol and listing**

Karolinska Development's share trades under the ticker symbol, KDEV. The share is listed on the NASDAQ Stockholm Exchange's Small Cap Index. The ISIN code is SE0002190926.

#### The convertible

Karolinska Development's outstanding convertible debt totalled SEK 329 million on 31 December 2017. As of 31 December 2017 the repayable amount (which is the amount payable on the due date 31 December 2019) was SEK 484 million. The convertible is traded under the ticker symbol, KDEV KV1, and is listed on the NASDAQ Stockholm Exchange with the ISIN code, SE0006510103.

#### **Shareholders**

	A-Shares	B-Shares	Cap %	Vote %
Karolinska Institutet Holding AB	1,503,098	2,126,902	5.64%	22.03%
Tredje AP-Fonden	0	7,764,000	12.06%	9.97%
Sino Biopharmaceutical Limited	0	4,853,141	7.54%	6.23%
Östersjöstiftelsen	0	3,889,166	6.04%	4.99%
Coastal Investment Management LLC	0	3,470,134	5.39%	4.46%
OTK Holding A/S	0	1,900,000	2.95%	2.44%
Försäkringsaktiebolaget Avanza Pension	0	1,605,551	2.49%	2.06%
Ribbskottet AB	0	1,400,000	2.18%	1.80%
Stift För Främjande&Utveckling	0	1,397,354	2.17%	1.79%
FAM AB	0	1,357,741	2.11%	1.74%
Sum Top 10 Shareholders	1,503,098	29,763,989	48.58%	57.51%
Sum Other Shareholders	0	33,094,119	51.42%	42.49%
Sum All Shareholders	1,503,098	62,858,108	100.00%	100.00%

#### **Board of directors**



Hans Wigzell
Chairman

Chairman since 2018. Board member since 2006. Born 1938. Professor Emeritus of Immunology and MD. Other appointments Chairman of Rhenman & Partner Asset Management AB. Board member of Swedish Orphan Biovitrum AB, Valneva SA, Sarepta Therapeutics Inc. and RaySearch Laboratories AB. Member of The Royal Swedish Academy of Engineering Sciences and of the Royal Swedish Achademy of Sciences. Previous assignments include, among others, the President of Karolinska Institutet's Nobel Committee, and President of Karolinska Institutet and Director General of Smittskyddsinstitutet.

Holdings in Karolinska Development 36,491 shares and SEK 39,992 convertible loan.



**Tse Ping**Vice Chairman

Vice Chairman and Board member since 2015. Born 1952. Honorary Doctorate, Fil Dr hc. Other appointments Founder and Chairman of Sino Biopharmaceutical Limited, Vice Chairman of Charoen Pokphand Group (CP Group), where he has extensive experience of major merger and acquisition activity including Ping An Insurance, CITIC Group, China Mobile, ITOCHU Corporation, and Marko Group. Previous appointments include Member of the Ninth, Tenth, and Eleventh National Committee of the Chinese People's Political Consultative Conference.

Holdings in Karolinska Development 4,853,141 shares and SEK 272,858,294 in convertible bonds (by related legal person).



**Vlad Artamonov**Board Member

Board member since 2012. Born 1978. MBA, B.Sc. Other appointments Board Member of Redbank Energy Ltd. and of Coastal Capital International Ltd., Managing Partner at Coastal Capital International Ltd. Previous appointments include Investment Analyst at Greenlight Capital Inc., position in the Global Merger & Acquisition Group at Merrill Lynch in New York.

Holdings in Karolinska Development 3,470,541 shares (by related legal person).

#### **Board of directors**



**Anders Härfstrand**Board Member

Board member since 2017. Born 1956. MD, PhD. Other assignments Chairman of Härfstrand Consulting, Board member Prothena Plc, Senior Commercial Advisor HBM Partners, Earlier assignments Chief Executive Officer of BBB Therapeutics BV, President and Chief Executive Officer Europe of Makhteshim Agan Industries Ltd; President and Chief Executive Officer of Humabs BioMed SA; Chief Executive Officer of Nitec Pharma AG, Various executive and management roles at Serono, Pfizer and Pharmacia. Independent of the company, its executive management and in relation to the company's major shareholders.

No holdings in Karolinska Development.



Magnus Persson
Board Member

Board member since 2017. Born 1960. MD PhD Assoc Prof. Educated at Karolinska Institutet. Previous assignments CEO Karolinska Institutet Holding AB, Managing Partner The Column Group, Partner HealthCap, Clinical Research Physician Sanofi. Current board assignments include Galecto Biotech AS (Chairman), SLS Invest AB (Chairman) Health Innovation Platform AB (Chairman), Cantargia AB (Chairman), Inititator Pharma (Chairman), Albumedix AS, Immunicum AB and Medical Prognosis Institute AS.

No holdings in Karolinska Development.



**Theresa Tse**Board Member

Board Member since 2017. Born 1992. Bachelor Degree of Science in Economics from the Wharton School of University of Pennsylvania. Other appointments Executive Director, the Chairlady of the Board and the Chairlady of the Executive Board Committee and the Nomination Committee, respectively, of Sino Biopharmaceutical Ltd (listed in Hong Kong).

Holdings in Karolinska Development 4,853,141 shares and SEK 272,858,294 in convertible bonds (by related legal person).

#### The team



**Viktor Drvota** 

CEO

Appointed as CEO on June 1, 2017 succeeding Jim Van heusden, and previously CIO since 2016. Born 1965 M.D, Ph.D. Associate Prof. In Cardiology. Viktor Drvota has over 13 years of Venture Capital experience with several investements, significant fundraisings, IPOs and exits. He was responsible for Life science at SEB Venture Capital 2002-2016. During his appointment at SEB VC he also served as a Board member in several biotech and Medtech companies such as Arexis AB, SBL Vaccin AB, Nuevolution AS, Index Pharma AB, Scibase AB, Airsonett AB among others. Before joining SEB in, Dr Dryota worked as Senior Consultant and Associate Professor in Cardiology at the Karolinska Institutet/ hospital, Stockholm. Dr Drvota has experience from preclinical as well as clinical research in drug development and medical devices. Dr Drvota has 29 published research articles.

Holdings in Karolinska Development: 24,000 shares, 1,608 418 warrants.



**Elisabet Gimbringer** 

Controller

Employed since November 2015. Born 1965. Economics and Business education from Stockholm University. Elisabet has worked as an approved public accountant for 10 years, and as a financial manager, business controller and financial controller for a number of different companies and fields for the last 15 years. Other appointments Board member of KD Incentive AB.

Holdings in Karolinska Development: 4,000 shares, 107,228 warrants.



Fredrik Järrsten

Chief Financial Officer

Appointed 2017. Born 1967. MSc in Business and Economics. Fredrik Järrsten has more than 20 years of experience within investments and business development, including 12 years in the Life Science sector, Between 2014-2017, Fredrik was CFO and Business Development Director at Bactiguard, a Swedish Medtech company, where he among other things lead the company's IPO on Nasdag Stockholm. In 2006, Fredrik was appointed Director Business Development, including M&A, at Aleris, one of Scandinavia's leading private healthcare companies. While there, he led the work for eight years to generate growth through concluding some thirty acquisitions as well as through coordinating tender-driven organic growth. Fredrik has also worked as Investment Manager at the private equity company, Litorina Kapital 1999-2006 as well as the investment banks SEB Enskilda and Lazard 1992-1999 advising clients in M&A, fund raisings and IPOs.

Holdings in Karolinska development: 25,000 shares, 402,105 warrants.



Esther Miralles Simó

Analyst

Employed since 2018. Born 1990. MSc in Medical Science with a major in Bioentrepreneurship from Karolinska Institutet.

No holdings in Karolinska Development.

## The team



**Eva Montgomerie**Head of Accounting

Employed since October 2013, Employed within the group since 2007. Born 1958. MSc in Business and Economics. Eva Montgomerie has worked within the bank and finance sector for 12 years, 10 years within the food and clothing sector and seven years within life science. Other appointments Finance manager in Dilafor AB and Pharmanest AB.

Holdings in Karolinska Development: 6,834 shares, 107,228 warrants.



**Ulf Richenberg**General Counsel

Appointed in 2008. Born 1955. Master of Laws. Ulf Richenberg has 25 years' experience in business law, including positions as legal counsel of KIHAB, Esselte AB and Vattenfall, General Counsel of AB Stokab and Scribona AB and business law consultant at FOI. Other appointments Chairman of KCIF Fund Management AB. Board member of KD Incentive AB.

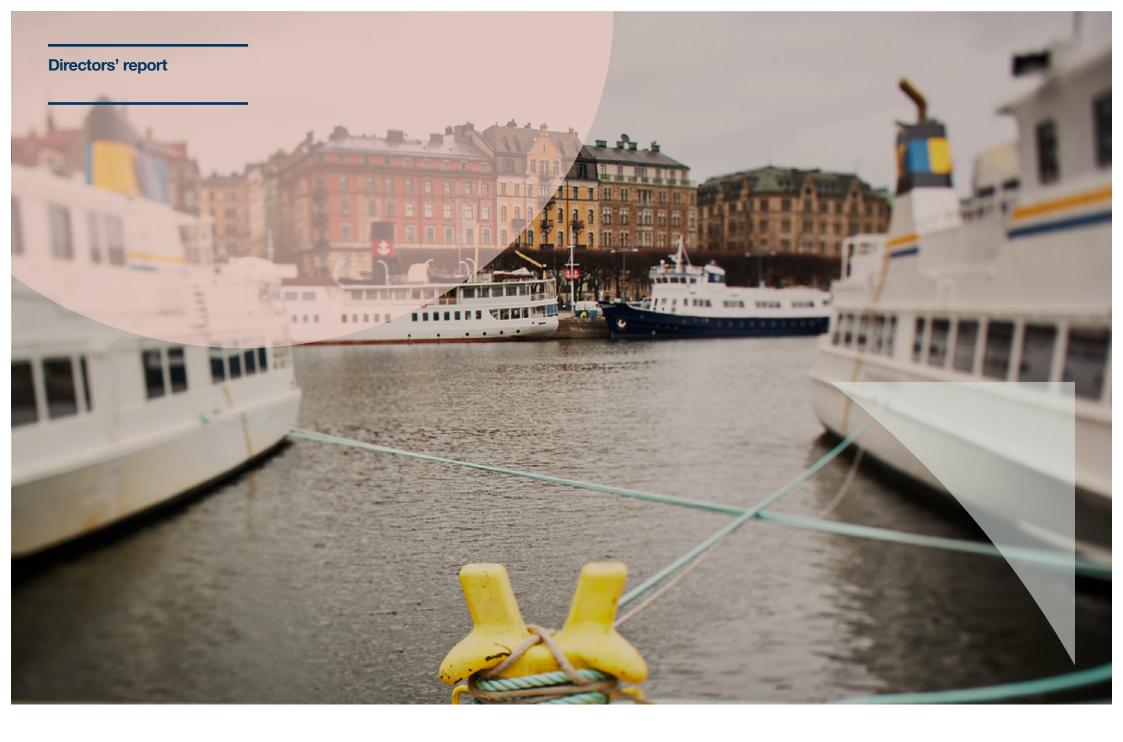
Holdings in Karolinska Development: 39,872 shares, 402,105 warrants.



**Felicia Rittemar** Analyst

Employed since 2016. Born 1990. MSc in Medical Science with a major in Bioentrepreneurship from Karolinska Institutet.

Holdings in Karolinska Development: 107,228 warrants.



The Board of Directors and the CEO of Karolinska Development AB (publ), corporate identity number 556707-5048, hereby present their annual report for the parent company and the financial report for the Investment Entity regarding the financial year 2017.

Karolinska Development (Nasdaq Stockholm: KDEV) is an investment company which offers a unique opportunity to share in the growth in value of a number of Nordic life science companies with high commercial potential, nine of which have projects in the clinical development or early launch phase. The investments in pharmaceutical companies are made through syndication with other professional life science investors.

Karolinska Development's objective is for the portfolio companies operating in the pharmaceutical development sector to continue until proof-of-concept is demonstrated in phase II studies, at which point the potential for entering into cash-flow generating licensing deals, trade sales, or IPOs is increased. The reasoning is that this is an attractive point in time for doing business. It is only then that it is possible to demonstrate that a candidate drug has the anticipated biological effect, thereby substantially reducing the ongoing development risk and significantly increasing the value of the project. Karolinska Development's objective for the holdings in portfolio companies within medtech is to divest at the point when the companies have launched their first product and become cash flow-positive.

Karolinska Development has access to world-class medical innovations at leading universities and research institutions in the Nordic region, including Karolinska Institutet. The company's management comprises individuals with extensive experience of investment operations, research and development, and entrepreneurship, all of whom have access to extensive global networks in the pharmaceutical industry and/or the scientific sector.

# Important events during the financial year

A number of the portfolio companies' projects have made significant progress in 2017, with positive subsequent effects, such as the increase in the value of our holding in Umecrine Cognition. We have also successfully realised a successful return on the partial exit of BioArctic as well as divesting the holding in Xspray, which was received earlier as an earn-out payment. This has enabled Karolinska Development to post a positive full-year result for the first time since the strategy shift.

#### Value generation through listings and earn-out agreements

The portfolio company, BioArctic, was listed on the NASDAQ Stockholm Exchange during the autumn 2017. Based on the valuation in conjunction with the listing, Karolinska Development's holding was worth 80 times the original investment in BioArctic. During the final quarter of the year, Karolinska Development monetised part of this increase in value through a partial exit and received SEK 35 million. The holding in Xspray received under an earn-out agreement was also divested during the period for a total return of SEK 13.3 million. The increase in value for Karolinska Development in the latter case was due to earn-out agreement reached in conjunction with previous divestment of the company. In November, Karolinska Development as a result of such an earn-out agreement again became an owner in Pharmanest – a company that is developing a therapy for reducing pain in conjunction with gynaecological procedures. Another earn-out agreement was signed this past autumn in conjunction with the divestment of the holding in Lipidor.

# Progress in the development of the portfolio companies' projects

The portfolio companies initiated four new studies with their candidate drugs in 2017 in addition to the already ongoing clinical studies. The successful development work during the past year is expected to enable important phase II read outs for a number of pharmaceutical projects in 2018 or early 2019. Assuming the outcomes are positive, these results will form the basis for negotiations with potential commercial partners or trade deals. A third option for monetising the value of the investments is to float the companies on the stock market. One concrete sign of the positive consequences of the progress in the development of pharmaceutical projects is that the value of the holding in Umecrine Cognition increased by SEK 196 million in 2017 in response to positive phase Ib data.

# Working actively to balance risk

Thourgh active Board work, Karolinska Development focuses on reducing the risk inherent in its investments without thereby reducing the project's commercial potential. The risk of a portfolio company project failing to achieve the anticipated biological results is there addressed by means of, amongst other things, professionally designed clinical trials, and by expanding the development work to include more than one therapeutic indication area. Aprea's broad clinical development programme, which includes numerous different forms of cancer, is one example of this approach, as is the decision by Umecrine Cognition to launch a separate study of patients with severe sleep disorders, which will be financed through a successful new funding.

#### **Stronger Balance Sheet and cash position**

Karolinska Development has strengthened its Balance Sheet over the past year, partly due to the positive result and partly by means of the set-off issue completed during the first quarter. The company's cash position (cash equivalents and short-term investments) totalled SEK 169.6 million at the year-end. By the end of 2017, the majority of the portfolio companies were financed up to the next value-generating milestone and Karolinska Development is consequently of the opinion that the current cash equivalents and short-term investments are sufficient to cover follow-up investments in the existing portfolio companies, ongoing costs, and new investments.

#### Several new recruitments in key positions

Both Karolinska Development and several of the portfolio companies have made changes to their management teams and Boards in 2017. Viktor Drvota took over as CEO of Karolinska Development in June 2017, and in December, Fredrik Järrsten was appointed as the new CFO. Promimic and Modus recruited new CEOs in January and April respectively, both of whom have lengthy and successful careers in the life sciences sector.

# Important events in Karolinska Development

- Karolinska Development completed a set-off issue whereby holders of convertibles subscribed for class B shares corresponding to SEK 67 million of the company's convertible debt. This resulted in an increase in the number of class B shares to 64,336,696 (March and April 2017).
- Viktor Drvota was appointed as the new CEO of the company, effective as of 1 June 2017 (April 2017).
- Hans-Olov Olsson, Anders Härfstrand and Magnus Persson were elected as new Members of the Board at the Annual General Meeting of the Company.
   Niclas Adler was appointed Chairman of the Board (May 2017).
- Karolinska Development appointed Fredrik Järrsten as CFO, effective as of 1 December 2017, and succeeding Christian Tange, who, after four years at Karolinska Development, has chosen to move on to new challenges (August 2017).
- The value of the holding in Umecrine Cognition increased by SEK 196 million in response to positive phase lb data (October 2017).

- Hans-Olov Olsson resigned as a Member of the Board of Karolinska Development (October 2017).
- The number of class B shares increased by 106 as a result of the conversion of convertible loans (October 2017).
- Karolinska Development obtained shares in Pharmanest AB as a result of the earn-out agreement entered into in conjunction with an earlier divestment of the holding (November 2017).
- Theresa Tse was elected as a Member of the Board of Karolinska Development at an Extraordinary General Meeting (November 2017).
- Professor Hans Wigzell succeeded Niclas Adler as the Chairman of the Board.
   Niclas Adler resigned from his position for personal reasons (December 2017).

## Important events in the portfolio companies

#### **Aprea**

- Aprea began a partnership with Memorial Sloan Kettering Cancer Center in the USA (March 2017).
- The first patient was enrolled in a phase lb/ll study of the APR-246 candidate drug in patients with platinum-resistant, high-grade serous ovarian cancer (August 2017).
- The first patient was enrolled in a phase lb/ll study of APR-246 for the treatment of oesophageal cancer (October 2017).

#### Modus

- Modus Therapeutics obtained SEK 32 million through a new share issue (February 2017).
- Ellen K. Donnelly took over as the new CEO of the company (April 2017).
- Publication of positive results from a phase I/II study of the candidate drug, sevuparin, in patients with malaria (December 2017).

#### **Dilafor**

 Dilafor began a phase Ilb study of tafoxiparin for the treatment of women with protracted labour (January 2017).

#### **Umecrine Cognition**

- Umecrine Cognition enrolled the first patient in a phase lb/lla study of GR3027 for the treatment of hepatic encephalopathy (March 2017).
- The company presented positive phase lb data for its candidate drug, GR3027 (September 2017).
- Dr Thomas P. Blackburn was elected to the Board of Umecrine Cognition (September 2017).
- The company secured financing for clinical development of the candidate drug, GR3027, for the treatment of sleep disorders (October 2017).
- The first patient was enrolled in a phase IIa study of GR3027 for the treatment of serious sleep disorders (November 2017).

#### **OssDsign**

- OssDsign established new commercial partnerships for the distribution of the company's products in Europe (January 2017).
- The OSSDSGN® Cranial product obtained market approval in the USA (January 2017).
- The company signed a distribution agreement with Matador Medical for the USA market (February 2017).

#### **Promimic**

- Magnus Larsson was appointed as the company's new CEO (January 2017).
- Promimic obtained FDA approval for the use of HA<sup>nano</sup> Surface on dental implants (December 2017).

Passive investments (non-active ownership through board representation)

#### **BioArctic**

 BioArctic completed a listing of the company's class B shares on the NASDAQ Stockholm Exchange (October 2017).

#### Earn-out agreements

#### **Xspray Pharma**

 Xspray Pharma AB completed an IPO on the NASDAQ First North Exchange in Stockholm (September 2017).

#### **Oncopeptides**

Oncopeptides' share was listed on the NASDAQ Stockholm Exchange.
Karolinska Development has a 5% earn-out agreement for Oncopeptides with
Industrifonden with a market value of SEK 26.7 million, based on Oncopeptides'
market capitalisation at the listing on 22 February 2017, which will be
received when Industrifonden divests its holding in Oncopeptides.

#### **Divestments**

- Karolinska Development divested its holding in Inhalation Sciences but retains an economic interest in the company's future value potential through an earn-out agreement (February 2017).
- The holding in Xspray received trough an earn-out agreement was divested, yielding an upfront payment of SEK 12.5 million and a further SEK 0.8 million via KCIF's sale (October 2017).
- An increase in the value of the BioArctic portfolio company was monetised via a partial exit in the amount of SEK 35 million (November 2017).
- Karolinska Development divested its holding in the portfolio company, Lipidor, but retains an economic interest in the company's future value potential through an earn-out agreement (December 2017).

# The Investment Entity and the Parent Company

The following financial reporting is divided into one financial reporting for The Parent Company and one for The Investment Entity. The Parent Company and The Investment Entity are the same legal entity, but the reporting is divided in order to meet legal reporting requirements.

The Parent Company is reporting in accordance with the guidelines under the Swedish Annual Accounting Act and Swedish Financial Accounting Standards Council, RFR 2. The Investment Entity is required to meet the reporting requirements of listed companies and thus in accordance with IFRS adopted by the EU and the Swedish Annual Accounts Act.

# Financial Development for the Investment Entity in 2017 (SEK million)

#### **Investments**

As indicated above, Karolinska Development's investment strategy is to finance its portfolio companies to their next significant value inflection point, when the companies can be exited. Karolinska Development is also focusing on attracting external specialized life science investors to secure a broad investor base to support the development of the companies and manage risks as well as maximize the chances of success.

During 2017, investments from external investors and Karolinska Development totaled SEK 396.8 million. In 2015 and 2016, total investments in portfolio companies amounted to SEK 206 million and SEK 368 million respectively, giving a total investment amount of SEK 971 million in the three-year period 2015-2017.

Karolinska Development's investments in its portfolio companies amounted to SEK 91.9 million, of which SEK 87.6 million was cash investments and SEK 4.6 million was non-cash investments (accrued interest on loans).

Karolinska Development investments were made in four companies: Umecrine Cognition (SEK 44.8 million), OssDsign (SEK 24.5 million), Modus Therapeutics (SEK 22.9 million) and Pharmanest (SEK 0.1 million). A disbursement was made by KCIF in connection with the sale of the shares in Xspray.

# Investments in Karolinska Development's portfolio companies in 2017

SEK million	Karolinska Development	External Investors	Total invested 2017
Umecrine Cognition	44.8	15.0	59.8
OssDsign	24.5	43.7	68.2
Modus Therapeutics	22.9	11.2	34.1
Pharmanest	0.1	17.1	17.2
KCIF	-0.5	-1.4	-1.9
Aprea	0.0	188.4	188.4
Dilafor	0.0	13.9	13.9
Asarina Pharma	0.0	11.9	11.9
Biosergen	0.0	3.3	3.3
Lipidor	0.0	1.8	1.8
Total	91.9	304.9	396.8

Aprea, Dilafor, Inhalation Sciences, Asarina Pharma, Biosergen and Lipidor are 100% financed by external investors.

#### **Portfolio Fair Value**

Fair Value of the portfolio companies owned directly via Karolinska Development increased by SEK 284.2 million in 2017. The main reasons for the increase were Umecrine Cognition's increased fair value and the investments in the company, the investments in OssDsign, but also the increased fair values of the holding in Pharmanest and the remaining holding in BioArctic.

Fair Value of the portfolio companies owned indirectly via KDev Investments increased by SEK 24.5 million in 2017. The main reason was the investments in Modus Therapeutics. Inhalation Sciences was divested in the first quarter with an earn-out agreement.

Total Fair Value of portfolio companies owned directly by Karolinska Development as well as indirectly via KDev Investments increased by SEK 308.7 million in 2017.

As a consequence of the increase in Fair Value of the portfolio owned via KDev Investments, the potential distribution to Rosetta Capital was raised by SEK 10.4 million, making the change in Net Portfolio Fair Value SEK 298.4 million in 2017.

SEK million	31 Dec 2017	31 Dec 2016	2017 vs 2016
Fair value in Karolinska Development portfolio (unlisted companies)	413,844	143,657	270,187
Fair value in Karolinska Development portfolio (listed companies)	14,083	0	14,083
Fair value in KDev Investments portfolio (unlisted companies)	286,070	261,586	24,484
Total Portfolio Fair Value	713,997	405,243	308,754
Potential distribution to Rosetta Capital of fair value in KDev Investments	266,214	255,837	10,377
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	447,783	149,406	298,377

Total Portfolio Fair Value at 31 December 2017 amounted to SEK 714.0 million. Because the potential distribution to Rosetta Capital was SEK 266.2 million, Net Portfolio Fair Value at 31 December 2017 amounted to SEK 447.8 million.

#### Results 2017 (comparable figures refer to 2016)

Karolinska Development's revenues consist primarily of services provided to portfolio companies, which amounted to SEK 2.5 million in 2017 (SEK 2.0 million in 2016, and also share dividend of SEK 3.3 million from BioArctic).

Other external expenses decreased to SEK 13.2 million (SEK 15.4 million).

Personnel costs increased to SEK 23.3 million (SEK 17.3 million) in 2017, mainly due to accrued severance costs for the outgoing CFO and the outcome of the bonus program.

With an increase of SEK 298.4 million (decrease of SEK 118.2 million) in Karolinska Development's Net Portfolio Fair Value, investments by Karolinska Development of SEK 91.9 million in 2017 (SEK 28.8 million), and the result of divested shares in Xspray and BioArctic of SEK 45.6 million, the Result of Changes in Portfolio Fair Value through profit or loss amounted to SEK 252.1 million in 2017 (SEK -147.0 million).

Operating profit was SEK 220.5 million (SEK -174.0 million) in 2017.

During 2017, the financing of a number of portfolio companies via loans continued and interest income amounted to SEK 4.5 million (SEK 2.6 million). The interest on the convertible is rolled over, but a portion of the convertible loan was issued through a set-off issue during the year, because of which the interest expense decreased to SEK 43.5 million in 2017 (SEK 45.3 million), making net financial costs SEK -40.9 million (SEK -42.8 million).

With an operating profit of SEK 220.5 million (SEK -174.0 million) and net financial costs of SEK -40.9 million (SEK -42.8 million), the Investment Entity's profit before tax amounted to SEK 179.6 million (SEK -216.8 million) in 2017. As described above, the main reasons for the positive result were the increase in Umecrine Cognition's value, the divestment of the holding in Xspray obtained through an earn-out agreement, and the partial exit of BioArctic.

# **Financial position**

Retained earnings increased by SEK 177.0 million (decreased by SEK 218.0 million) and equity at 31 December 2017 amounted to SEK 267.1 million (SEK 29.8 million). Total assets amounted to SEK 663.3 million at 31 December 2017 (SEK 438.3 million) and the equity to total assets ratio in the Investment Entity was 40% (7%).

At 31 December 2017, cash and cash equivalents and short-term investments amounted to SEK 169.6 million (SEK 248.1 million).

#### Cash flow

In 2017, cash from operating activities before investments and changes in working capital amounted to SEK -34.4 million (SEK -29.0 million), an increase in the deficit of SEK 5.4 million compared to 2016.

During 2017, Karolinska Development invested SEK 89.8 million (SEK 27.0 million) in cash in its portfolio companies and together with changes in working capital, cash from operating activities amounted to SEK 11.3 million (SEK -9.0 million). Net cash increased by SEK 8.7 million (SEK -9.0 million) in 2017.

# Information on risks and uncertainties Investment Entity and Parent Company

#### Risk of losing invested capital

Karolinska Development invests, for instance, in companies with projects at early stages, before beneficial effects have been proven, in animal testing or human testing, so-called proof of principle and proof of concept, respectively. Accordingly, the business is associated with a great amount of risk. Karolinska Development invests primarily in unlisted companies, which means that Karolinska Development may not be able to find suitable exit alternatives for its investments within the time frame expected by Karolinska Development, or at all. If Karolinska Development is unsuccessful in finding suitable exit opportunities for its investments, the Company's business, results, financial condition, and growth could be adversely affected.

# Future financing requirements

In order to secure financing for investments in current and new portfolio companies, Karolinska Development may seek additional financing in the future. Such additional financing may not be available to Karolinska Development on acceptable terms, or at all. If Karolinska Development is unable to obtain funding on time, the Company may be required to significantly curtail its investments, implying that the Company's business, results, financial condition, and growth could be adversely affected.

In addition, loan financing, if available, may be expensive and may involve restrictive covenants or may otherwise constrain the Company's financial flexibility, which could adversely affect the Company's business, results, financial condition, and growth.

#### **Future capital needs**

Future investments in new and existing portfolio companies will require capital. There is no guarantee that capital can be obtained on favorable terms or in sufficient amounts to finance the operations in accordance with the business plan, or that such capital can be obtained at all. The Company has a convertible loan with a nominal amount of SEK 329 million after the set-off issue, which can be converted to shares at a rate of SEK 22 per series B share. There is no guarantee the share price will rise to SEK 22 before December 2019.

# Key employees at Karolinska Development and in the portfolio companies

It is vital that Karolinska Development succeeds in retaining its key employees and is able to recruit new employees when needed. Therefore, high demands will be placed on the Company's professional leadership, that Karolinska Development's distinctive profile is preserved, and that the forecasted development is met. Karolinska Development faces competition for personnel from other companies, investment funds, universities, public and private research centers as well as government entities and other organizations. If Karolinska Development would be unsuccessful in its efforts to retain and recruit relevant personnel, the Company's business, results, financial condition, and growth could be adversely affected.

Furthermore, a key factor for the portfolio companies is to succeed in retaining and recruiting individuals with experience in fundraising, company development and exits, and/or expertise in research and technology on which these companies are built. Equally important is a skillful leadership and that the staff considers the workplace stimulating. To achieve this, high demands will be placed on the portfolio companies' leadership. In addition to an interesting work environment, attractive employment conditions are important. The portfolio companies may fail in their efforts to retain and recruit staff with the appropriate skills, which may adversely affect the portfolio companies and the Company's business, results, financial position, and growth.

# Cooperation with the portfolio companies and co-investors

Karolinska Development usually has a representative on the board of directors of its portfolio companies. The aim on a strategic level is to be able to assist these portfolio companies in matters concerning their development. The boards of directors of the portfolio companies are also composed of representatives of other investors as well as independent directors. Cooperation on these boards is dependent on effective communication and good relationships between the directors, and with the management of the portfolio companies. Karolinska Development's board representatives are in a minority position on the boards

of the portfolio companies and their influence on board meetings may be limited. Moreover, it is necessary for Karolinska Development and its executive management to succeed in reaching agreements with other investors which could contribute to the portfolio companies' further development. Karolinska Development also often holds a minority position in the portfolio companies. Karolinska Development and its board representatives may not be able to meet these requirements, which could adversely affect the portfolio companies' further development and the Company's business, results, financial condition, and growth.

#### Access to new investment opportunities

Karolinska Development has a non-exclusive deal flow agreement with Karolinska Institutet Holding AB ("KIHAB"), wholly owned by Karolinska Institutet ("KI"), and Karolinska Institutet Innovations AB ("KIAB"). As part of the agreement, there are plans to establish a new incubator fund focused on identifying potentially valuable new medical innovations at KI and other Swedish universities at an early preseed stage. Karolinska Development may not be able to secure access to the deal flow coming from such an incubator fund or the fund may not be established.

Apart from its agreement with KIHAB and KIAB, Karolinska Development is also dependent on its relationships with universities, tech transfer offices, entrepreneurs, and investors to get access to additional deal flow. Karolinska Development may not be able to identify suitable deals to invest in.

#### Complicated ownership structures in the portfolio companies

Karolinska Development's holdings in the portfolio companies are in some cases direct, in others indirect via, for example, KDev Investments AB and/or KCIF Co-Investment Fund KB, and sometimes the Company has a combination of direct and indirect holdings. The Company makes investments in the portfolio companies on a regular basis, normally through new issues of shares in the portfolio companies, but also through loans or other financing instruments. This means that the ownership structures of the portfolio companies are changing regularly. Furthermore, from time to time transfers of ownership are made in connection with exits, partial exits or due to restructurings. There is a risk that necessary waivers from pre-emption or preferential rights according to portfolio companies' articles of association or according to shareholders' agreements regarding the portfolio companies are not obtained, or not documented in the correct order. If anyone were to dispute the Company's holdings in the portfolio companies and succeed with such a claim in a legal proceeding, it could result in an unexpected decrease in the value of the Company's holdings in portfolio companies, which could adversely affect the Company's operations, results, financial position, and growth.

#### The development work of the portfolio companies

The majority of the portfolio companies' projects are in phase II stages of development and further research and development work is required before the innovations and technologies of the companies can be commercialized. Examples of such work are testing of drugs on patients to assess the candidate drugs' effect and safety. Problems or delays may occur and the development work may not be able to be conducted successfully, or at all. Future product development of the portfolio companies is subject to the risk of failure, inherent in the development of pharmaceutical, other biotechnological products or techniques, and medical devices. This includes, among others, the possibility that any or all of the portfolio companies' product candidates will show a lack of effect, be toxic or otherwise fail to either meet applicable regulatory standards, fail to receive necessary regulatory approvals or clearances, or turn out to be difficult to develop into commercially viable products.

Cash flow from the exit or licensing of projects is subject to the objectives of the portfolio companies' projects being achieved. Each outcome has a direct impact on the potential value of a portfolio company. Other factors that may have an impact on the cash flow from the portfolio companies are competitors' successes and demand from potential buyers at a given point in time.

Most of the portfolio companies' projects may not be commercialized to the extent necessary in order for Karolinska Development's investment in the project to be profitable, or even for Karolinska Development to recover the capital invested from the portfolio company in question. Karolinska Development has after the strategic reorganization a relatively narrow portfolio, limiting the potential that one or more projects that can be commercialized successfully enough to cause significant dividends or exit proceeds to Karolinska Development. If none of the portfolio companies are able to achieve such commercial success, it could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

# The challenge of innovation

The markets for pharmaceutical, biotechnology, diagnostics, and medical devices are characterized, inter alia, by long periods of research and development, rapid technological development, regulatory challenges, and a large number of competing product launches. The existing and potential customers of the portfolio companies often work within established reference models and standard practices. The portfolio companies conduct business with highly advanced research and pioneering technologies. If the portfolio companies cannot successfully, and within set time frames, break into these markets and establish their products and technologies, the portfolio companies' and the Company's business, results, financial condition, and growth could be adversely affected.

#### Long time before marketing of products

The time it takes before a product candidate has completed the entire research and development process, established a strong patent protection, satisfied all regulatory requirements, and found strong marketing and distribution partners, is often underestimated. Moreover, the market introduction of new products and technologies often starts slowly. Introducing new products and technologies, which are not previously known and accepted, or have predetermined reimbursement models, takes time. This could lead to delays in milestone payments and royalty income, or that they lapse entirely, which could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

#### Competition for the portfolio companies

The markets for the product candidates and new technologies of the portfolio companies are exposed to fierce competition. The portfolio companies' direct and indirect competitors are in many cases major international companies. Such actors are already established in the markets of the portfolio companies and may hold competitive advantages. Furthermore, they can normally react rapidly to new research and development or new market requirements. They may also, compared to the portfolio companies, have greater financial resources and expertise in research and development, clinical trials, better opportunities in obtaining regulatory approvals, and superior marketing.

Competitors may develop more effective, more affordable and more suitable products, or may achieve patent protection earlier or be able to commercialize their products earlier than Karolinska Development's portfolio companies. These competing products may render the portfolio companies' product candidates obsolete or otherwise limit the ability of the portfolio companies to generate revenues from their product candidates, which could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

# Market and technology development

The portfolio companies frequently operate in markets characterized by rapid development. New and competing products and technologies may pose a threat to the products developed by the portfolio companies. Moreover, new products and actors result in increased competition, which may negatively impact both price and market penetration. The future prospects of the portfolio companies will to a large extent depend on their ability to develop their business and to produce high-quality products and technologies. The portfolio companies' development work may not proceed without problems. Problems in the development work may lead to delays in set timetables and that products and techniques, once they are fully developed, will not satisfy the market requirements and demands and/or will

not achieve broad market acceptance. Changes in pricing principles may impair the value of the products, technologies, and services developed by the portfolio companies, which in turn could adversely affect the portfolio companies' and Karolinska Development's business, results, financial condition, and growth.

#### Product liability for the portfolio companies

The portfolio companies are in many cases exposed to the risk of product liability claims that may be inherent due to flaws in manufacturing, studies, or marketing of certain pharmaceuticals or diagnostics, biotechnology, and medical devices. The portfolio companies may not be able to obtain or maintain insurance protection for such claims on acceptable terms, or at all. Moreover, insurance that the portfolio companies do obtain may not provide adequate protection against a potential claim. This could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

#### **Need for strategic partners**

Most of the portfolio companies have a great need to enter into partnerships or ally themselves with major international companies to market their products. The portfolio companies may not be successful in attracting third parties to enter into such partnerships, and, if such partnerships are entered into, they may not develop as planned. If a strategic partner does not fulfill its contractual obligations or commitments or fails to keep to expected time limits, or if a partner has to be replaced or if the clinical information that the partner receives for some reason appears to be of poor quality or incorrect, planned clinical trials may be extended, delayed, or terminated, which could have a negative impact on the business of the portfolio company and its ability to license or commercialize its products, which in turn could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

## Intellectual property rights of the portfolio companies

The success of the portfolio companies is to a large extent dependent on the portfolio companies' ability to protect methods and technologies that they develop with patent protection and other intellectual property rights in order to prevent competitors from using their innovations and other protected information. Since patent applications in general are confidential for 18 months from the date of the application, third parties may have filed patent applications for methods and technologies covered by a portfolio company's pending patent applications without the portfolio company being aware of such applications. Consequently, the portfolio company's patent application may not have priority, which in turn could result in the patent protection being considerably less extensive than applied for. The fact that a patent has been granted does not provide absolute protection during the term of the patent. Patents may later be declared invalid by court or an authority, which

leads to insufficient patent protection vis-à-vis other innovations. In addition, granted patents must be properly transferred from the inventor/inventors to the portfolio company in question. Moreover, the extent of the patent protection is dependent on patent category and the wording of the patent application. The different patent categories and the wording of the patent application are of importance to the strength of a patent and may vary from case to case.

As a result of the formation of the patent legislation, the exercise of an innovation in accordance with a portfolio company's patent may be governed by the technology in another patent on which the portfolio company's patent is dependent. In such a situation, the portfolio company may not be able to ensure the right to use such technology at reasonable conditions to the portfolio company, or at all.

A third party may sue a portfolio company for infringing its patent rights. Likewise, a portfolio company may need to resort to litigation against a third party to enforce a patent granted to the portfolio company or to determine the scope and invalidity of third-party proprietary rights. Patent litigations often take several years and the issue may, depending on the rules of the country in question, be tried in several courts. The cost of pursuing intellectual property litigation, even if resolved in the portfolio company's favor, could be substantial. Litigation could also divert the portfolio company's focus from the portfolio company's ordinary business. Uncertainty resulting from pursuing litigation could limit a portfolio company's ability to continue its operations. If any party should claim that a portfolio company's intellectual property rights, the portfolio company may be forced to pay damages and cease the infringing activity.

In many countries, prohibitory injunctions may be announced at an early stage of legal proceedings. As prohibitory injunctions often require that security is provided, the portfolio companies may not have sufficient financial resources to pursue prohibitory injunctions.

It is not certain that the patents of the portfolio companies entail sufficient legal or commercial protection against financially strong competitors that, despite the patent, may use the portfolio company's methods and technologies. Furthermore, the patents of the portfolio companies may not entail sufficient legal or commercial protection against similar products which the market assesses to be replaceable with the portfolio company's product. Only a few of the portfolio companies may have registered trademarks. Without accurate registration, it might be difficult, or at least time and resource consuming, to prevent a third party from using the respective portfolio company's trade name or brands, as applicable. If any of the risks related to the intellectual property of the portfolio companies were to materialize, it could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

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#### Trade secrets of the portfolio companies

Each portfolio company may be dependent on trade secrets, which are not protected by patents or other intellectual property, being safeguarded. Such trade secrets could include, but are not limited to, information in relation to inventions for which patent protection has not been sought yet or to information in relation to manufacturing processes or methods for which patent protection cannot be sought. Employees and collaboration partners of the respective portfolio company do generally have an obligation of confidentiality towards the portfolio company. However, it can happen that someone, having access to information of great value for the portfolio company in question, discloses or uses the information in a manner that impairs the portfolio company's position on the market, which could adversely affect the relevant portfolio company's and the Company's business, results, financial condition, and growth.

#### Future financing requirements of the portfolio companies

Research and development activities and marketing efforts in the life science industry are capital-intensive. The portfolio companies may not be able to obtain further capital on advantageous terms, and the capital which may be obtained may not be sufficient to finance the activities in accordance with the portfolio companies' respective business plans. Any inability of Karolinska Development to participate in future investment rounds in a portfolio company could lead to the portfolio company having to curtail its business and/or to Karolinska Development's holding in the company being diluted by other investors. Even in situations where Karolinska Development would be able and willing to participate, co-investors may not be willing to participate on the same terms and conditions. If any of these risks were to materialize, it could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

# Dependency on obtaining regulatory approvals

In order to obtain regulatory approvals for commercial sale of the portfolio companies' products, the portfolio companies and their collaborating partners will be required to complete clinical trials to demonstrate the safety and efficacy of the products. The portfolio companies and their collaborating partners may fail in obtaining approvals from regulatory authorities to commence or complete such clinical trials. If approval is obtained, such clinical trials may prove that the products are not safe or effective to the extent necessary to obtain marketing authorizations from regulatory authorities. Positive results demonstrated in development studies and clinical trials that the portfolio companies and their collaborating partners finalize may not be confirmed in results obtained in future clinical trials.

The portfolio companies and their collaborating partners will not be able to market any of their products without first obtaining the requisite authorizations from the appropriate regulatory authorities. The regulatory process to obtain marketing authorization for a new pharmaceutical product may take many years and usually requires significant financial and other resources. If the portfolio companies and their collaborating partners do not obtain the requisite authorizations to market their product candidates, it could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

#### **Environmental regulations**

Because of the chemical ingredients in pharmaceutical products and the nature of their manufacturing process, the pharmaceutical industry is subject to extensive environmental regulation and the portfolio companies are subject to the risk of incurring liability for damages or costs of remediation, renovation or control of environmental problems. The portfolio companies may not be able to obtain the operating licenses necessary to conduct their business. In addition, if the portfolio companies fail to comply with environmental regulations relating to the proper use or disposal of hazardous materials or otherwise fail to comply with conditions attached to operating licenses, such licenses could be revoked. The portfolio companies can also be subject to legal sanctions and substantial liability and costs, or could be required to suspend or modify their operations, which could adversely affect the portfolio companies' and the Company's business, results, financial condition, and growth.

#### Financial risks

Financial risks are described in Note 17.

# Financial Development for the Parent Company in 2017

## (Amounts in SEK million, comparable figures refer to 2016)

The financial reporting of the Parent Company has, through a voluntary change in accounting policy in the second quarter of 2017, measurement at fair value through profit or loss, adopted a principle similar to what the Investment Entity has previously applied. The change was made to simplify reporting by the Company and for the sake of transparency with better conformity with the Investment Entity's financial reporting. Restated comparable figures are shown in Note 45.

# **Directors' report**

During 2017, the Parent Company's operating profit amounted to SEK 220.5 million (SEK -174.0 million), an improvement of SEK 394.5 million compared to 2016. The Parent Company's net profit for the year amounted to SEK 179.6 million (SEK -216.8 million).

The positive result for 2017 led to an increase in equity from SEK 29.8 million at 31 December 2016 to SEK 267.1 million at 31 December 2017.

#### Corporate governance report

The Corporate Governance Report is in a separate document at the end of the annual report.

#### Guidelines for Remuneration to the CEO and other Executive Management as well as other conditions

The Guidelines for Remuneration to Executive Management are prepared by the Board of Directors for adoption by the Annual General Meeting. For the 2017 guidelines, see Note 5.

#### Board of Directors' proposal for Guidelines for Remuneration to Executive Management to the Annual General Meeting 2018

Karolinska Development shall maintain remuneration levels and terms required to recruit and retain senior executives with the competence and experience needed to achieve the Company's operational goals. Total remuneration to executive management must be competitive, reasonable and appropriate. Fixed base salary is determined based on the individual's area of responsibility and experience. Variable salary (i) is formulated with the aim of encouraging Karolinska Development's long-term value creation; (ii) is based upon criteria that are predetermined, clear, measurable and can be influenced; (iii) has established limits for the maximum outcome; and (iv) is not pensionable income. If terminated by the Company, the term of notice is six months.

#### Share capital and owner

Karolinska Development's share capital at the end of the financial year amounted to SEK 0.6 million, distributed among 64,361,206 shares with a par value of SEK 0.01, of which 1,503,098 were A shares (with 10 votes each) and 62,858,108 were B shares (with one vote each). The largest shareholders were Tredje AP-Fonden, with a total of 7,764,000 B shares representing 12.06% of the capital and 9.97% of the votes; Sino Biopharmaceutical Limited, with 4,853,141 B shares representing 7.54% of the capital and 6.23% of the votes; and Karolinska Institutet Holding AB, with 1,503,098 A shares and 2,126,902 B shares representing 5.64% of the capital and 22.03% of the votes.

#### **Holding of treasury shares**

At year-end, the company held 244,285 treasury shares, corresponding to SEK 2 443 of the share capital, and the consideration paid totaled SEK 4.7 million. The purpose of share repurchases is to cover social security costs related to the PSP incentive programs. The repurchases are made during previous years. No acquisitions or transfers of own shares have taken place during the year.

#### The Annual General Meeting's authorization to the Board

The Annual General Meeting on May 24, 2017 authorized the Board, for the period up until the next annual general meeting to decide, whether on one or several occasions without pre-emption rights for the shareholders to issue new shares of series B up to a maximum of ten percent of the share capital.

The Annual General Meeting also authorized the Board to decide on transfer of earlier acquired shares of series B amounting to 244,285, to cover social security fees in PSP 2014 and PSP 2015.

#### **Future development**

The Company has a portfolio of exciting companies that are funded to deliver key value-generating milestones over the next 12–18 months, an investment strategy designed to generate further value from the most promising life science opportunities across the Nordic region, and key executives in place with the necessary international experience and capabilities to drive its strategy forward, with the aim of creating additional value for all share/bond holders.

Karolinska Development does not provide any forecasts regarding the divestment of portfolio companies.

#### **Environment and responsibilities**

Karolinska Development's operations do not involve any special environmental risks and do not require any special environmentally related permits or authorizations from authorities. Karolinska Development undertakes its operations according to applicable health and safety regulations and offers its employees a safe and sound working environment.

# **Directors' report**

# **Multi-year summary**

			1111	estiment Littity			
SEKm	2017	2016	2015	2014 (restated)	2013 (restated)	2012 (restated)	2011 (restated)
Income statement							
Revenue	2	5	3	5	5	4	2
Operating expenses	-37	-33	-47	-69	-64	-60	-64
Result from change in fair value	252	-147	-976	-304	-533	121	-176
Operating profit/loss	218	-174	-1,020	-368	-592	65	-238
Financial net	-41	-43	-34	-4	41	-22	-6
Profit/loss after financial items	177	-217	-1,055	-372	-551	43	-244
Balance sheet							
Tangible non-current assets	-	-	-	1	1	-	-
Shares in portfolio companies	448	149	268	1,113	1,336	1,827	1,547
Loans receivable from portfolio companies	3	1	-	12	6	13	4
Other financial assets	41	38	38	38	38	9	-
Total non-current assets	492	188	306	1,164	1,381	1,849	1,551
Other current assets	2	2	11	17	5	6	7
Short-term investments	150	238	278	128	165	174	457
Cash and cash equivalents	19	11	20	13	35	109	68
Total current assets	171	250	309	158	205	288	532
Total assets	663	438	614	1,322	1,586	2,137	2,083
Equity	267	30	248	1,257	1,565	2,116	2,075
Long-term liabilities	384	399	355	35	9	11	-
Current liabilities	12	9	12	30	12	11	8
Total liabilities and equity	663	438	614	1,322	1,586	2,137	2,083
Cash flow							
Cash flow from operating activities	11	-9	-325	-109	-71	43	-568
Cash flow from financing activities	-3	0	332	86	-2	-2	563

Investment Entity

<sup>&</sup>lt;sup>1</sup> Definitions of key ratios, see page 97.

# **Directors' report**

### Multi-year summary continued

SEKm	2017	2016	2015	2014 (restated)	2013 (restated)	2012 (restated)	2011 (restated)
Cash flow for the year	9	-9	7	-22	-73	40	-5
Key ratios¹							
Capital employed	651	429	603	1,292	1,574	2,116	2,075
Return on equity	66%	-729%	-425%	-30%	-35%	2%	-12%
Return on capital employed	27%	-51%	-175%	-29%	-35%	2%	-12%
Equity to total assets ratio	40%	7%	40%	95%	99%	99%	100%
Average number of employees	7	6	12	13	14	16	16
Data per share							
Profit/loss after tax, SEK, before dilution	2.93	-4.08	-19.84	-7.64	-11.38	0.89	-5.56
Profit/loss after tax, SEK, after dilution	2.93	-4.08	-19.84	-7.64	-11.38	0.89	-5.56
Equity, SEK	4.2	0.6	4.6	23.6	32.4	43.6	42.7
Net asset value, SEK	4.3	0.7	4.7	23.7	32.5	43.7	42.8
Share price at year-end, SEK	5.8	6.0	9.6	13.30	30.90	15.30	25.80
Dividend, SEK	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Share price/Equity per share	139%	1,076%	207%	56%	95%	35%	60%
Share price/Net asset value per share	133%	854%	205%	56%	95%	35%	60%
Number of shares at year-end	64,361,206	53,464,998	53,449,640	53,384,558	48,531,417	48,531,417	48,531,417
Weighted average number of shares before dilution	61,243,234	53,210,223	53,151,328	48,606,243	48,350,016	48,529,767	43,908,951
Weighted average number of shares after dilution	61,300,516	53,210,223	53,151,328	48,606,243	48,350,016	48,529,767	43,908,951

Investment Entity

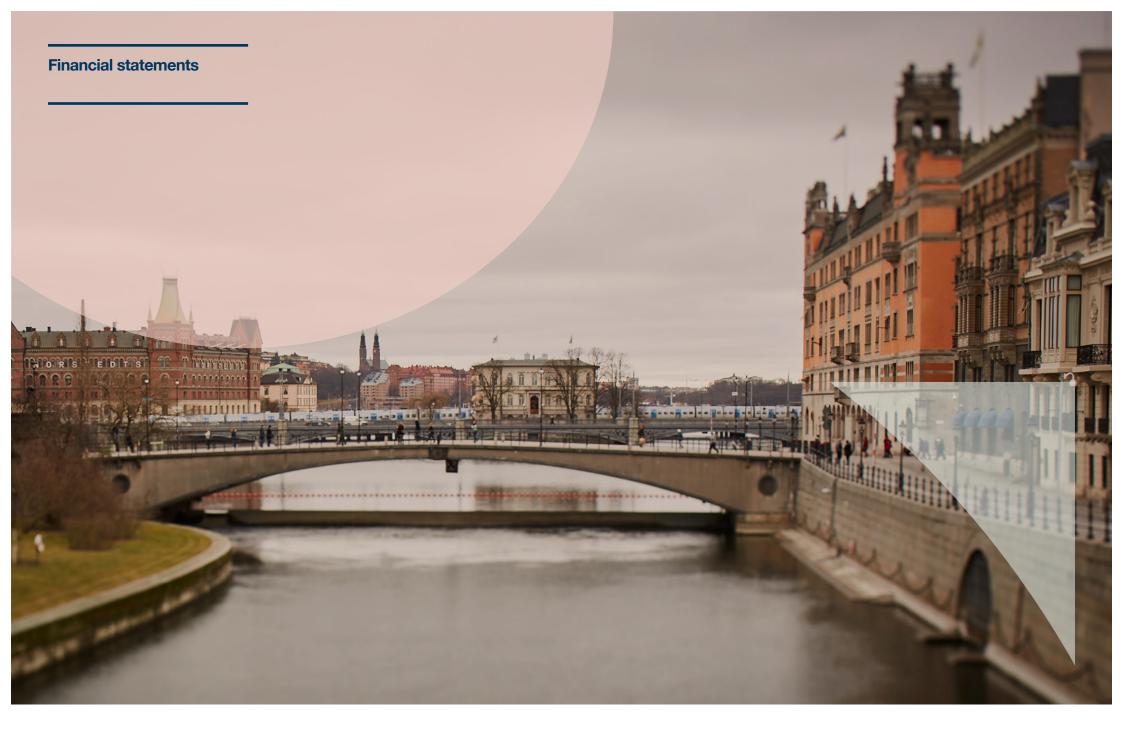
### Proposed appropriation of profit (SEK)

The following earnings are available for appropriation by the Annual General Meeting:

SEK	31 Dec 2017
Retained loss	-1,883,869,836
Share premium reserve	1,970,751,616
Net profit/loss for the year	179,594,624
Total	266,476,404
The Board of Directors proposes that profits brought forward be appro	priated as follows:
Share premium	1,970,751,616
Retained loss	-1,704,275,212
To be carried forward	266,476,404

For information regarding the operating results and financial position of the Investment Entity and the Parent Company, refer to the following income statements, balance sheets, statements of cash flow and accompanying notes. Unless otherwise stated, all amounts are reported in thousands of Swedish kronor (SEK 000).

<sup>&</sup>lt;sup>1</sup> Definitions of key ratios, see page 97.



# **Income statement for the Investment Entity**

SEK 000	Note	2017	2016
Revenue	2	2,464	5,360
Other expenses	3,4	-12,996	-15,415
Personnel costs	5	-23,513	-17,344
Depreciation of tangible non-current assets		0	-106
Change in fair value of shares in portfolio companies	17	252,072	-146,544
Change in fair value of other financial assets	17	2,483	-
Operating profit/loss		220,510	-174,049
Interest income		4,549	1,954
Interest expenses	6	-43,495	-45,237
Other financial gains and losses	6	-1,969	500
Financial net		-40,915	-42,783
Profit/loss before tax		179,595	-216,832
Taxes	7	-	-
NET PROFIT/LOSS FOR THE YEAR		179,595	-216,832

# Statement of comprehensive income for the Investment Entity

SEK 000 Note	2017	2016
Net profit/loss for the year	179,595	-216,832
Total comprehensive income/loss for the year	179,595	-216,832

# Earnings per share

SEK 000	Note	2017	2016
Earnings per share, weighted average before dilution		2.93	-4.08
Number of shares, weighted average before dilution	13	61,243,234	53,210,223
Earnings per share, weighted average after dilution		2.93	-4.08
Number of shares, weighted average after dilution	13	61,300,516	53,210,223

# Statement of financial position for the Investment Entity

SEK 000	Note	31 Dec 2017	31 Dec 2016
Assets			
Tangible non-current assets			
Tangible non-current assets	8	-	-
Financial assets			
Shares in portfolio companies at fair value through profit or loss	9	447,783	149,408
Loans receivable from portfolio companies	10	3,436	957
Other financial assets	17	40,596	38,113
Total non-current assets		491,815	188,478
Current assets			
Receivables from portfolio companies		611	229
Other current receivables	11	531	660
Prepaid expenses and accrued income	12	666	806
Short-term investments at fair value through profit or loss	17	150,329	237,545
Cash and cash equivalents	17	19,305	10,602
Total current assets		171,442	249,842
TOTAL ASSETS		663,257	438,320
Forth and Kabilista			
Equity and liabilities	13		
Equity Chara copital	13	644	26,732
Share capital			ŕ
Share premium  Accumulated leases including net profit/leas for the year		1,970,752 -1,704,275	1,874,236 -1,871,153
Accumulated losses including net profit/loss for the year			
Total equity		267,121	29,815
Long-term liabilities	14	270 104	204 420
Convertible loan	14	379,184	394,438
Other financial liabilities	15,17	4,807	4,798
Total Long-term liabilities		383,991	399,236
Current liabilities		1.155	1 460
Accounts payable		1,155	1,460
Liabilities to portfolio companies	45	1.007	-
Other current liabilities	15	1,627	960
Accrued expenses and prepaid income	16	9,363	6,849
Total current liabilities		12,145	9,269
Total liabilities TOTAL EQUITY AND LIABILITIES		396,136 663,257	408,505 438,320

# Statement of changes in the Investment Entity's equity

	Equity attributable	e to Investment E	ntity's shareholders
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SEK 000	Note	Share capital	Share premium	Accumulated losses	Total
Opening equity at 1 Jan 2017 (restated)	13	26,732	1,884,310	-1,881,227	29,815
Net profit/loss for the year				179,595	179,595
Total comprehensive income for the year				179,595	179,595
Reduction in share capital		-31,525	31,525		0
Effect of incentive programs				-15	-15
Set-off share issue		5,436	54,905	-2,628	57,713
Share issue		1	12		13
Closing equity at 31 Dec 2017		644	1,970,752	-1,704,275	267,121
Opening equity at 1 Jan 2016	13	26,725	1,874,236	-1,653,080	247,881
Net profit/loss for the year				-216,832	-216,832
Total comprehensive loss for the year				-216,832	-216,832
Correction of error <sup>1</sup>			10,074	-10,074	0
Effect of incentive programs				-1,241	-1,241
Share issue		7			7
Closing equity at 31 Dec 2016 (restated)		26,732	1,884,310	-1,881,227	29,815

<sup>&</sup>lt;sup>1</sup> Correction of error has been made in 2017 between Share premium and Accumulated losses.

### Statement of cash flows for the Investment Entity

SEK 000	Note	2017	2016
Operating activities			
Operating profit/loss		220,510	-174,049
Adjustments for non-cash items			
Depreciation	8	-	106
Result of fair value change	17	-254,555	146,544
Other items		18	-1,371
Proceeds from short-term investments		-405	-193
Interest received/paid		2	-
Cash flow from operating activities before changes in working capital and operating investments		-34,430	-28,963
Cash flow from changes in working capital			
Increase (-)/Decrease (+) in operating receivables		348	7,851
Increase (+)/Decrease (-) in operating liabilities		2,876	-2,665
Operating investments			
Sale of shares in portfolio companies		45,565	444
Acquisitions of shares in portfolio companies, loans to portfolio companies	34,35,37	-89,775	-26,987
Proceeds from sale of short-term investments <sup>1</sup>		86,747	41,326
Short-term investments <sup>1</sup>		-	-
Cash flow from operating activities		11,331	-8,994
Financing activities			
Share issue		-	7
Issue costs		-2,628	<u>-</u>
Cash flow from financing activities		-2,628	7
Cash flow for the year		8,703	-8 987
Cash and cash equivalents at the beginning of the year	17	10,602	19,589
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	17	19,305	10,602

<sup>&</sup>lt;sup>1</sup> Surplus liquidity in the Investment Entity is invested in fixed income funds and is recognized as shortterm investments with a maturity exceeding three months. These investments are consequently not reported as cash and cash equivalents and are therefore included in the statement of cash flows from operating activities. The supplemental disclosure is presented to provide a total overview of the Investment Entity's available funds, including cash, cash equivalents and short-term investments.

# Supplemental disclosure<sup>1</sup>

CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	19,305	10,602
Short-term investments, market value at closing date	150,329	237,545
CASH AND CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS AT THE END OF THE YEAR	169,634	248,147

# **Income statement for the Parent Company**

SEK 000	Note	2017	2016 (restated)
Net sales	23	2 464	5 360
Revenue		2,464	5,360
Other expenses	24,25	-12,996	-15,415
Personnel costs	26	-23,513	-17,344
Depreciation of tangible non-current assets		-	-106
Change in fair value of shares in portfolio companies	27,45	252,072	-146,544
Change in fair value of other financial assets	27,45	2,483	0
Operating profit/loss		220,510	-174,049
Interest income and similar income items	29	4,549	1,954
Interest expenses and similar expense items	30,45	-45,464	-44,737
Financial net		-40,915	-42,783
Taxes	31	0	0
NET PROFIT/LOSS FOR THE YEAR	45	179,595	-216,832

# Statement of comprehensive income for the Parent Company

SEK 000	Note	2017	2016 (restated)
Net profit/loss for the year	45	179,595	-216,832
Total comprehensive income/loss for the year	45	179,595	-216,832

# **Balance sheet for the Parent Company**

SEK 000	Note	31 Dec 2017	31 Dec 2016 (restated)
Assets			
Non-current assets			
Machinery and equipment	32	-	-
Financial assets			
Shares in subsidiaries	33	0	0
Shares in joint ventures	34,45	335,139	80,238
Shares in associated companies	34,45	88,471	68,570
Other long-term securities holdings	35	24,173	600
Loans receivable from portfolio companies	37,45	3,436	957
Other financial assets	38,45	40,596	38,113
Total non-current assets		491,815	188,478
Current assets			
Receivables from subsidiaries		611	229
Other current receivables	39	531	660
Prepaid expenses and accrued income	40,45	666	806
Short-term investments		150,329	237,545
Cash and cash equivalents		19,305	10,602
Total current assets		171,442	249,842
TOTAL ASSETS		663,257	438,320
Equity and liabilities			
Equity			
Restricted equity			
Share capital	13,45	644	26,732
Unrestricted equity	41		
Share premium		1,970,752	1,884,310
Accumulated losses		-1,883,870	-1,664,395
Net profit/loss for the year		179,595	-216,832
Total equity		267,121	29,815
Long-term liabilities			
Convertible loan	14	379,184	394,438
Other financial liabilities	42	4,807	4,798
Total Long-term liabilities		383,991	399,236
Current liabilities			
Accounts payable		1,155	1,461
Other current liabilities		1,627	959
Accrued expenses and prepaid income	44	9,363	6,849
Total current liabilities		12,145	9,269
Total liabilities		396,136	408,505
TOTAL EQUITY AND LIABILITIES		663,257	438,320

# Statement of changes in equity for the Parent Company

	Res	tricted equity	Uı			
SEK 000	Note	Share capital	Share premium reserve	Accumulated losses	Net profit/loss for the period	Total equity
			'	'	'	
Opening equity at 1 Jan 2017 (restated)	13	26,732	1,884,310	-1,664,395	-216,832	29,815
Appropriation of loss				-216,832	216,832	0
Net profit/loss for the year					179,595	179,595
Total		26,732	1,884,310	-1,881,227	179,595	209,410
Effect of incentive programs				-15		-15
Share issue		1	12			13
Set-off share issue		5,436	54,905	-2,628		57,713
Reduction in share capital		-31,525	31,525			0
Closing equity at 31 Dec 2017		644	1,970,752	-1,883,870	179,595	267,121
Opening equity at 1 Jan 2016	13	26,725	1,884,310	-793,045	-883,503	234,487
Appropriation of loss				-883,503	883,503	0
Net profit/loss for the year					-218,926	-218,926
Total		26,725	1,884,310	-1,676,548	-218,926	15,561
Effect of voluntary change in accounting policy	45			13,394	2,094	15,488
Effect of incentive programs				-1,241		-1,241
Share issue		7				7
Closing equity at 31 Dec 2016 (restated)	,	26,732	1,884,310	-1,664,395	-216,832	29,815

# **Statement of cash flows for the Parent Company**

SEK 000	Note	2017	2016 (restated)
Operating activities			
Operating profit/loss	45	220,510	-174,049
Adjustments for non-cash items			
Depreciation of tangible non-current assets		-	106
Result of fair value change	27,32,45	-254,555	146,544
Other items		18	-1,371
Realized change in value of short-term investments		-405	-193
Interest received/paid		2	-
Cash flow from operating activities before changes in working capital and operating investments		-34,430	-28,963
Cash flow from changes in working capital			
Increase (-)/Decrease (+) in operating receivables		348	7,851
Increase (+)/Decrease (-) in operating liabilities		2,876	-2,665
Operating investments			
Sale of shares in portfolio companies	34,45	45,565	444
Acquisitions of shares in portfolio companies, loans to portfolio companies	34,37,45	-89,775	-26,987
Sale of short-term investments		86,747	41,326
Cash flow from operating activities		11,331	-8,994
Financing activities			
Share issue		-	7
Issue costs		-2,628	<u>-</u>
Cash flow from financing activities		-2,628	7
Cash flow for the year		8,703	-8,987
Cash and cash equivalents at the beginning of the year		10,602	19,589
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR		19,305	10,602
Supplemental disclosure <sup>1</sup>			
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR		19,305	10,602
Short-term investments, market value at closing date		150,329	237,545
CASH AND CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS AT THE END (	OF THE YEAR	169,634	248,147

<sup>1</sup> Surplus liquidity in the Parent Company is invested in fixed income funds and is recognized as short-term investments with a maturity exceeding three months. These investments consequently are not reported as cash and cash equivalents and therefore are included in cash flow from operating activities. The supplemental disclosure is presented to provide a comprehensive overview of the Parent Company's available funds, including cash, cash equivalents and short-term investments.

CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR	19,305	10,602
Short-term investments, market value at closing date	150,329	237,545
CASH AND CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS AT THE END OF THE YEAR	169,634	248,147

### Notes to the financial statements

#### Note 1

#### **Accounting policies**

#### **Operations in general**

Karolinska Development AB (publ) ("Karolinska Development," "Investment Entity" or the "Company") is a Nordic life sciences investment company. The Company, with Corporate Identity Number 556707-5048, is a limited liability company with its registered office in Solna, Sweden. The Company focuses on identifying medical innovations and investing in the creation and growth of companies ("portfolio companies") that develop these assets into differentiated products that will make a difference to patients' lives and provide an attractive return on investment to its shareholders.

# Compliance with generally accepted accounting policies and law

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and the interpretations of the IFRS Interpretations Committee, as adopted by the EU. Furthermore, recommendation RFR 1 Supplementary Accounting Regulations for Groups and statements UFR 7 and 9 from the Swedish Financial Reporting Board have been applied.

#### Conditions when preparing the financial statements

This is an English translation of the Swedish annual report. In the event of any discrepancy between the content of the two versions, the Swedish version shall prevail.

The Company's functional currency is Swedish kronor, which is also the reporting currency of the Investment Entity. This means that the financial statements are presented in Swedish kronor. All figures, unless otherwise indicated, are rounded to the nearest thousand. Assets and liabilities are recognized at historical cost, except for certain financial assets and liabilities measured at fair value. Financial assets and liabilities measured at fair value consist of holdings in subsidiaries, joint ventures and associated companies, other securities holdings, other financial assets and liabilities, and short-term investments classified as financial assets held for sale.

The preparation of the financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the application of accounting policies and carrying amounts of assets, liabilities, revenue and expenses. The estimates and assumptions are based on historical experience and various other factors which are considered appropriate under prevailing conditions. The results of these estimates and assumptions are then used to assess the

carrying amounts of assets and liabilities that are not otherwise evident from other sources. The actual result may differ from these estimates and assessments.

Estimates and assumptions are reviewed periodically. Changes in estimates are recognized in the period the change is made if the change only affects that period or in the period the change is made and future periods if the change affects both the current period and future periods.

The following accounting policies for the Investment Entity have been applied consequently to all periods presented in the financial statements, unless otherwise stated below.

#### New and amended standards applied by the Investment Entity

New or amended IFRS standards and interpretations from the IFRS Interpretations Committee have not had an impact on the Investment Entity.

# New and amended IFRS and interpretations that enter into force in 2018

The Investment Entity applies as of 1 January 2018 the following new and amended IFRS and interpretations that have issued but not yet entered into force on the closing date:

IFRS 9 "Financial Instruments" covers the accounting of financial assets and liabilities and replaces IAS 39 "Financial Instruments: Recognition and measurement". IFRS 9 requires financial assets to be classified in categories and that the valuation is made at fair value or amortized cost. The classification is determined upon initial measurement based on the Company's business model and the characteristics of contractual cash flows. The portfolio companies will continue to be measured at fair value through the income statement. For financial liabilities, there are no major changes compared to IAS 39. The largest change relates to liabilities at fair value, where part of the change in fair value attributable to the liability's credit risk will be recognized in other comprehensive income rather than profit or loss, provided this does not cause inconsistency in the accounts. The introduction of IFRS 9 has not changed the impact compared to previous reporting.

IFRS 15 Revenue from Contracts with Customers specifies how and when revenue is recognized, but also contains rules on providing more informative, relevant disclosures in the financial statements. The introduction of IFRS 15 has not changed the impact compared to previous reporting.

None of the other IFRS or interpretations that have not yet been adopted are expected to have a material impact on the Investment Entity.

#### Significant accounting policies

#### Classification

The Investment Entity's non-current assets and long-term liabilities are essentially limited to amounts that are expected to be recovered or settled more than twelve months after the closing date. Current assets and current liabilities of the Investment Entity essentially comprise amounts that are expected to be recovered or settled within twelve months of the closing date.

#### **Operating segments**

An operating segment is a component of a company engaged in a business activity from which it may earn revenue and incur expenses, whose operating income is regularly reviewed by the Company's chief operating decision maker, and for which there is separate financial information. The Investment Entity's reporting of operating segments complies with the internal reporting to the chief operating decision maker. The chief operating decision maker has the function of assessing the profit/loss of the operating segments and determining the allocation of resources. In the Investment Entity's assessment, the management constitutes the chief operating decision maker. In internal reporting, the management evaluates the Investment Entity's result, but does not analyze the results for various parts of the Investment Entity. Consequently, the Investment Entity is considered a single reportable operating segment.

#### **Consolidating policies**

Karolinska Development has determined that it meets the definition of an investment entity. An investment entity does not consolidate its subsidiaries, IFRS 10 Consolidated Financial Statements, or apply IFRS 3 Business Combinations when it obtains control over another company, with the exception of subsidiaries that provide services associated with the investment entity's investing operations. An investment entity instead measures its holdings in portfolio companies at fair value through profit or loss in accordance with IAS 39 Financial Instruments: Recognition and Measurement.

Karolinska Development does not have any holdings in other investment entities that will be consolidated in any reporting period.

#### **Subsidiaries**

Subsidiaries are companies under the control of the Investment Entity. Consequently, an investor controls an investee only if the investor has:

a) power over the investee;

b) exposure, or rights, to variable returns from its involvement with the investee; and

 c) the ability to use its power over the investee to affect the amount of the investor's returns.

Karolinska Development considers all the facts and circumstances in assessing whether it controls an investee. The Company reassesses whether control exists if the facts and circumstances suggest that one or more of the controlling factors have changed.

#### **Associated companies**

An associated company is an entity over which the Investment Entity exercises significant influence through the ability to participate in decisions related to the financial and operational strategies of the business. This situation normally occurs when the Investment Entity, directly or indirectly, owns shares representing 20–50% of the votes, or receives significant influence through agreements.

Karolinska Development is an investment entity in accordance with IAS 28 Investments in Associates and Joint Ventures and has chosen to recognize its holdings in associated companies at fair value with changes in value through profit or loss in accordance with IAS 39 Financial Instruments: Recognition and Measurement. The accounting policy for financial assets at fair value through profit or loss is described in the section on financial instruments below.

#### **Joint ventures**

A joint venture is a joint arrangement whereby two or more parties that share joint control of the arrangement have the rights to its net assets. Joint control means contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Karolinska Development has chosen to recognize its holdings in joint ventures at fair value with changes in value through profit or loss, which is permitted in accordance with IAS 28.

# Significant assessments in the application of the accounting policies

The following section describes the most significant assessments, besides those containing estimates (see below), which management has made in the application of the Investment Entity's accounting policies and which have the most significant impact on the amounts recognized in the financial statements.

#### Qualification as an investment entity

In Karolinska Development's assessment, the Company meets the criteria for an investment entity. An investment entity is a company that meets the following criteria:

- a) it obtains funds from one or more investors for the purpose of providing the investor(s) with investment management services;
- b) it commits to its investor(s) that its business purpose is investing funds solely for returns from capital appreciation, investment income, or both; and
- c) it measures and evaluates the performance of substantially all its investments on a fair value basis.

In Karolinska Development's assessment, the Company also has the following typical characteristics to qualify as an investment entity:

- a) it has more than one investment;
- b) it has more than one investor;
- c) it has investors that are not related parties of the entity; and/or
- d) it has ownership interests in the form of equity or similar interests.

Karolinska Development has investments in several portfolio companies, has several investors that are not related parties to the Company and the investments are in equities.

The following significant assessments have been made in determining whether the Company qualifies as an investment entity:

• Karolinska Development invests in portfolio companies for the purpose of generating a return in the form of capital appreciation and investment income. Karolinska Development does not receive, nor does it have as its aim to receive, benefits from the Company's investments that are not available to other parties not related to the investee. The commercial purpose is not to develop medical products as such, but rather to invest to create and maximize the return. An important factor in the assessment is Karolinska Development's involvement in the investments' operations, since the Company provides certain services to support the development projects in the portfolio investments. Because of its influence as a shareholder, Karolinska Development normally appoints one or more board members of the portfolio companies. Despite that it provides certain services to the portfolio companies, Karolinska Development has reached the conclusion that it meets the criteria for an investment entity.

- Moreover, the primary criterion of evaluating the portfolio companies is based
  on fair value. Although Karolinska Development also monitors the portfolio
  companies through studies and clinical trials, for instance, the primary purpose
  of monitoring these key terms is to better understand changes in fair value and
  assess the need for additional future investments.
- The Company has a documented exit strategy for all its portfolio companies. Karolinska Development's investment strategy is to retain investments for a limited period. In every decision whether to invest in a company, the company and/or development project in question must have clear potential for a final exit, e.g., through a sale to an outside party, that the asset can be transferred or that there is a potential that the project (portfolio company) will be licensed to an outside party with a high return to global partners. The exit strategies are taken into consideration in the valuations.

#### Influence over the portfolio companies

Karolinska Development's ownership interests in its portfolio companies range from a few percent up to 72%. A relatively large proportion of Karolinska Development's share of the portfolio companies lies within the range of 20-72% and in some cases fluctuates over time through investments that increase or dilute Karolinska Development's holdings.

Karolinska Development normally enters into shareholder agreements with other shareholders in the portfolio companies. Where shareholder agreements assure other investors or founders of influence, Karolinska Development is not considered to have control, even if its ownership interest formally exceeds 50%. Karolinska Development has therefore chosen to recognize its holdings at fair value through profit or loss as holdings in associated companies or joint ventures depending on the degree of control.

### Valuation of portfolio companies

The calculation of the Portfolio Fair Value is based on IFRS 13 standards of deciding and reporting fair value and the International Private Equity and Venture Capital Valuation Guidelines (IPEV Valuation Guidelines) established by the IPEV, which represent the current best practice on the valuation of private equity investments.

The Portfolio Fair Value is divided into Total Portfolio Fair Value and Net Portfolio Fair Value.

**Total Portfolio Fair Value:** The aggregated proceeds that would be received by Karolinska Development and KDev Investments if the shares in their portfolio companies were sold in an orderly transaction between market participants at the measurement date.

**Net Portfolio Fair Value** (after potential distribution to Rosetta Capital) is the net aggregated proceeds that Karolinska Development will receive after KDev Investments' distribution of proceeds to Rosetta Capital and is designated in the Investment Entity's balance sheet as Shares in portfolio companies at fair value through profit or loss.

A detailed description of the impact of the portfolio valuation of the agreement with Rosetta Capital is provided in Note 17.

#### Important sources of uncertainty in estimates

Following are the most important future assumptions and other important sources of uncertainty at the end of the reporting period that entail a significant risk of material adjustments in the carrying amounts of assets and liabilities during the next financial year.

#### Valuation method for portfolio companies

The valuation of the company's portfolio is based on the International Private Equity and Venture Capital Valuation Guidelines (IPEV) and IFRS 13 Fair Value Measurement. Based on the valuation criteria provided by these rules, an assessment is made of each company to determine a valuation method. This takes into account whether the companies have recently been financed or involved with a transaction that includes an independent third party. If there is no valuation available based on a similar transaction, discounted cash flow models (DCF) are used for portfolio companies whose projects are suitable for this type of calculation.

DCFs of the underlying business consider all of the cash flows of a portfolio company, which are then discounted with an appropriate rate and also risk-adjusted to take the development risks in pharmaceutical development into consideration. Revenue streams are approximated from epidemiological data on the intended therapeutic indication and a number of assumptions such as pricing per patient and year, market share and market exclusivity (from IPR and regulatory market protection). As described in the IPEV Valuation Guidelines, the inputs in the DCF models are constructed with a high level of subjectivity. Hence, this method is only suitable for late-stage assets, either pharmaceutical companies with lead projects in late-stage (phase III) development or technology projects with an established market presence and where revenues can be projected with a higher degree of confidence than in products in earlier stages of development. As of 31 December 2017, there are no portfolio companies valued by DCF.

Companies with an established revenue stream may be valued by sales multiples. The multiples should be derived from current market-based multiples for comparable companies. As with DCF valuations, this method requires that the company has a mature market presence and its sales forecasts can be made with sufficient certainty. Furthermore, as this method only considers revenue

streams, the IPEV Valuation Guidelines stipulate that non-operating assets or liabilities need to be taken into account when applying this method. As of 31 December 2017, no companies were valued according to sales multiples.

Early-stage companies, defined as pharmaceutical assets prior to phase III development and technology assets prior to establishing targeted and sustainable sales revenues, which have not recently been financed by a transaction involving a third-party investor are valued at the price of the most recent investment, corresponding to the last post-money valuation of the portfolio company. Companies in such early stages of development typically show a relatively flat value appreciation through the financing rounds as they complete preclinical and early clinical milestones. Significant value appreciation is unlikely during this period and the post-money valuation, despite not being validated by an external investor, is considered a good approximation of fair value.

Such situations arise when Karolinska Development, alone or with other investors that have participated in previous investment rounds, reinvests in portfolio companies. Should a new investor join an investment round, the valuation method will fall under a higher valuation priority, although the actual metric – post-money valuation – is the same as if only existing owners participate.

Should Karolinska Development opt out of an investment round with no intention to participate in later rounds, the price in the most recent investment may still be a valid valuation method, provided that these circumstances lead to a disproportionate post-money valuation because of the loss of negotiating power over pricing (and Karolinska Development's ownership may be drastically diluted). However, as Karolinska Development's unwillingness to invest likely reflects a lower perceived value compared to previous post-money valuations, a lowering of value is often a good indication of fair value in such cases.

As the share price of internal financing rounds is decided by existing investors, caution is taken to ensure that the share price is not artificially inflated. In each quarterly fair value assessment the post-money valuation by internal investment rounds is benchmarked against portfolio company progress (e.g., met or failed milestones), comparable values for peer companies, bids from external investors and other applicable valuation methods to ensure that the post-money valuation is at an appropriate level to be considered fair value.

The cautious approach is particularly applied if an investment round is followed by a round that included a then third-party investor. An increase in fair value may be merited if, e.g., milestones have been reached during the time between investments, although in certain cases a large increase may not be considered. In these cases, the amount invested since the investment round with third-party investors should be added to correspond to the appreciation in value, while additional increases in value are not be included until the valuation is validated by new third-party investors.

Net asset value, defined as a portfolio company's assets minus its liabilities, is used as the fair value of portfolio companies without current operations. This typically occurs in companies considered financial assets as a consequence of discontinued development projects or withdrawn products. In essence, these companies are valued by their liquidation value.

#### Revenue

Revenue consists of dividends on shares in portfolio companies and invoiced services rendered to portfolio companies for management, communication, finance and administration, including legal and analytical operations. Revenue for services rendered is recognized in the period in which the service is rendered and recognized as the fair value of the consideration that has been or will be received, less value-added tax.

#### Operating expenses and financial income and expenses

#### Financial income and expenses

Financial income and expenses consist of interest income on bank deposits, receivables and interest-bearing securities, interest on loans, dividend income, foreign exchange differences, and unrealized and realized gains on financial deposits.

Interest income on receivables and interest on debt are recognized over their term to maturity using the effective interest method. The effective interest rate is the rate that makes the present value of all estimated future cash payments and disbursements over the expected interest rate duration equal to the carrying amount of the receivable or liability.

Interest income includes accrued transaction costs and any discounts, premiums and other differences between the original value of the claim and the amount received at maturity.

Issue costs and similar direct transaction costs for raising loans are distributed over the term of the loan.

Dividend income is recognized when the shareholder's right to receive payment is established.

# Earnings per share

Earnings per share before dilution are calculated by dividing the net profit/loss for the year attributable to Karolinska Development's shareholders by a weighted average number of shares outstanding during the period.

The weighted average number of outstanding shares is calculated by adjusting the number of shares outstanding at the beginning of the period for share issues and repurchases made during the period, multiplied by the number of days that the shares were outstanding in relation to the total number of days in the period. For diluted earnings per share, the number of shares is adjusted for all dilutive potential shares, which include warrants. The warrants are dilutive if the exercise price is less than the estimated fair value of the Investment Entity's shares and this reduces earnings per share after dilution.

#### **Financial instruments**

Financial instruments recognized in the balance sheet include, on the asset side, shares and participations, other financial assets, loans, accounts receivable, short-term investments, cash and cash equivalents. The liability side consists of borrowings, other financial liabilities and accounts payable.

Financial instruments that are not derivatives are initially recognized at acquisition cost, corresponding to the instrument's fair value plus transaction costs for all financial instruments except those belonging to the category financial assets at fair value through profit or loss, which are measured at fair value, net of transaction costs. Subsequent measurement depends on how they are classified as below.

A financial asset or financial liability is recognized in the balance sheet when the Investment Entity becomes a party according to the instrument's contractual terms. Accounts receivable are recognized in the balance sheet once the invoice has been sent. Liabilities are recognized when the counterparty has performed and a contractual obligation to pay exists, even if the invoice has not yet been received. Accounts payable are recognized when the invoice is received.

A financial asset is derecognized from the balance sheet when the contractual rights are realized, expire or the Investment Entity loses control over them. The same applies to part of a financial asset. A financial liability is derecognized from the balance sheet when the contractual obligation is fulfilled or otherwise extinguished. The same applies to part of a financial liability.

The acquisition and disposal of financial assets are recognized on the trade date, i.e., the date when the Investment Entity pledges to acquire or dispose of the asset, except in the cases where the Investment Entity acquires or disposes of listed securities, in which case settlement date accounting applies.

The fair value of listed financial assets corresponds to the asset's quoted purchase price on the closing date.

IAS 39 classifies financial instruments in categories. The classification depends on the purpose of the acquisition of the financial instrument. Management determines the classification at the original purchase date. The classification determines how the financial instrument is valued after initial accounting.

Karolinska Development has financial instruments in the following categories:

#### Financial assets at fair value through profit or loss (FVTPL)

This category has two subgroups: held for trading and financial assets designated at FVTPL. Financial assets in this category are measured continuously at fair value with changes in value recognized through profit or loss.

This category includes shares in portfolio companies, other financial assets.

#### Financial assets held for trading

A financial asset is classified as held for trading if it:

- has been acquired principally for the purpose of selling it or buying back in the near term;
- on initial recognition is part of a portfolio of identified financial instruments that are managed together and has a recent actual pattern of short-term profit-taking; or
- is a derivative that is not designated as an effective hedging instrument.

Short-term investments, fixed income funds, have been assessed as belonging to this category.

#### Loans receivable and receivables from subsidiaries

Loans receivable and receivables from subsidiaries are financial assets that are not derivatives, have fixed or determinable payments and are not quoted on an active market. Assets in this category are measured at amortized cost. Amortized cost is determined from the effective interest rate calculated on the acquisition date. Receivables from subsidiaries are recognized at the amount that is expected to be received after an allowance for impaired receivables. As the expected maturity time is short, the nominal value is recognized without discounting. Loans receivable from portfolio companies and receivables from subsidiaries have been assessed as belonging to this category.

#### Cash and cash equivalents

Cash and cash equivalents include cash and bank balances and other short-term liquid investments that are readily convertible to cash and are subject to an insignificant risk of changes in value. To be classified as cash and cash equivalents, the duration may not exceed three months from the date of acquisition. Cash and bank balances are categorized as "Loans receivable and accounts receivable," which are measured at amortized cost. Because the bank balances are payable upon demand, amortized cost corresponds to the nominal amount.

#### Financial liabilities at fair value through profit or loss

This category comprises financial liabilities held for trading and derivatives that are not used for hedge accounting. Liabilities in this category are measured at fair value with changes in value recognized through profit or loss. Other financial liabilities have been assessed as belonging to this category. For the present, there are no liabilities in this category.

#### Other financial liabilities

This category includes loans and other financial liabilities, e.g., convertible loans and accounts payable. Loans are measured at amortized cost. Amortized cost is based on the effective interest rate calculated when the liability was incurred. For accounts payable, if the expected duration is short, the nominal value is recognized without discounting.

#### Impairment testing of financial assets

Financial assets, with the exception of those measured at fair value through profit or loss, are tested for impairment when there is an indication of impairment at the end of each reporting period. Financial assets are considered impaired when there is objective proof, as a result of one or more events that have occurred after the initial date of recognition of the financial asset, that the estimated future cash flows for the investment have been impacted.

For financial assets at amortized cost, the impairment represents the difference between the asset's carrying amount and the present value of estimated future cash flows discounted to the original effective interest rate.

#### **Share capital**

#### **Dividends**

Dividends are recognized as a liability after the AGM has approved the dividend.

#### **Employee benefits**

#### **Defined contribution pension plans**

Obligations stemming from defined contribution pension plans are expensed through profit or loss as incurred.

Certain individual pension undertakings have been guaranteed in the form of Company-owned endowment insurance policies. The Investment Entity has no further obligation to cover possible shortfalls in the endowment insurance or to pay any amount in excess of deposited premiums, which is why these pension plans are accounted for as defined contribution pension plans. Accordingly, the payment of premiums corresponds to a final settlement of the undertaking vis-à-vis the employee. In accordance with IAS 19 and the regulations for defined contribution pension plans, the Investment Entity therefore reports no assets or liabilities, with the exception of specific payroll taxes related to these endowment insurance policies.

#### **Share-based payment**

The Performance and Matching Share Rights allotted to senior executives are measured at fair value on the allotment date. The fair value of Performance and Matching Share Rights on the allotment date has been established by the Black-Scholes pricing model. For more information on the valuation, see Note 5.

The fair value set on the allotment date is expensed with a corresponding adjustment in equity distributed over the vesting period, based on the Investment Entity's estimate of the number of Performance and Matching Share Rights it expects to be vested. On each closing date, the Investment Entity reevaluates its estimate of the number of Performance and Matching Share Rights it expects to be vested. If a previous estimate is revised, the effect is recognized in income with a corresponding adjustment in equity.

Social security contributions attributable to share-based payments are expensed over the vesting period.

#### **Taxation**

Income tax comprises current and deferred taxes. Income taxes are recognized through profit or loss except when the underlying transaction is recognized through other comprehensive income against equity or directly against equity, whereby the associated tax effect is recognized through other comprehensive income or directly against equity.

Current tax is tax to be paid or received for the current year, applying the tax rates enacted or substantively enacted by the closing date. This includes adjustments to current tax attributable to prior periods.

Deferred tax is calculated on the difference between recognized tax and tax values of the Investment Entity's assets and liabilities. Deferred tax is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognized for all taxable temporary differences, while deferred tax assets are recognized to the extent it is probable that the amounts can be offset against future taxable profits.

Deferred tax assets for deductible temporary differences and tax losses carried forward are recognized only to the extent it is probable that they will be utilized. The value of deferred tax assets is reduced when it is no longer considered probable that they can be utilized. The carrying amount of deferred tax assets is tested at each closing date and reduced to the extent it is no longer probable that sufficient taxable profit will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same authority and the Investment Entity intends to settle the tax on a net basis.

#### **Contingent liabilities**

A contingent liability is recognized when there is a possible obligation as a result of past events and whose existence is confirmed only by one or more uncertain future events, or when there is a commitment that is not recognized as a liability or provision because it is not probable that an outflow of resources will be required.

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### Note 2

#### **Revenue distribution**

Services rendered are comprised of invoiced services provided to portfolio companies in Sweden. These services consist of management, communication, finance and administration, including legal and analytical operations.

#### Revenue per significant revenue source

SEK 000	2017	2016
Dividend	-	3,333
Other revenue	2,464	2,027
Total revenue	2,464	5,360

#### Note 3

#### Other external expenses

#### Fees and remuneration to the Investment Entity's auditors

SEK 000	2017	2016
EY		
Audit services	1,167	1,231
Audit related services	550	162
Tax consulting	234	365
Total	1,951	1,758
Deloitte		
Audit related services	-	201
Audit related services Tax consulting	-	201 10

The audit fee refers to the auditor's reimbursement for execution of the statutory audit. This work includes the audit of the annual report and annual accounts, the administration of the Board of Directors and the CEO, and fees for advice offered in connection with the audit assignment. Audit related services primarily involve quality assurance services other than the statutory audit.

#### Note 4

#### **Operating leases**

The Investment Entity has chosen to finance premises and equipment through operating leases. Only operating leases have been signed. Expensed leasing payments and future contractual leasing payments are indicated below.

SEK 000	2017	2016
Expensed leasing payments during the period	1,086	1,656
Future leasing payments		
Within one year	713	912
Between one year and five years	2	456
Total future leasing payments	715	1,368

#### Note 5

#### **Employees and personnel costs**

### Average number of employees

Full-time equivalent	2017	Of whom women	Of whom men	2016	Of whom women	Of whom men
Investment Entity	7	43%	57%	6	34%	66%
Total	7	43%	57%	6	34%	66%

### Remuneration expenses for employees

#### Salaries, other remuneration and social security expenses

	201	7	2016			
SEK 000	Salaries and S	Social security expenses	Salaries and remuneration	Social security expenses		
Investment Entity	20,580	4,424	16,089	3,811		
(of which pension expenses)	2,203	534	1,962	476		

#### **Defined contribution pension plans**

The Investment Entity has defined contribution pension plans. Payments to these plans are made on an ongoing basis according to the regulations of each plan.

#### Remuneration to executive management

The Guidelines for Remuneration to Executive Management are prepared by the Board and resolved by the Annual General Meeting. According to the 2017 remuneration guidelines for executive management, the main features are as follows. Karolinska Development will maintain the remuneration levels and terms required to recruit and retain senior executives with the competence and experience needed to achieve the Company's operational goals. Total remuneration to senior executives must be competitive, reasonable and

appropriate. Fixed base salary is determined based on the individual's area of responsibility and experience. Variable salary (i) is formulated with the aim of encouraging Karolinska Development's long-term value creation; (ii) is governed by criteria that are predetermined, clear, measurable and can be influenced; (iii) has established limits for the maximum outcome; and (iv) is not pensionable income. If terminated by the Company, the CEO term of notice is six months.

The executive management includes the Chief Executive Officer, Chief Financial Officer and General Counsel. Previously the then Chief Investment Officer was included as well.

The table below shows the remuneration to the CEO, other senior executives and the Board of Directors during the financial year.

#### 2017

SEK 000	Base salary/ Board fee		Other benefits and remuneration	Pension costs	PSP program <sup>2</sup>	Total remuneration
Viktor Drvota, CEO from 1 June 2017	1,451	1,635		391		3,477
Jim Van heusden, CEO through 31 May 2017, employed through 18 Oct 2017	2,227	1,053	168	485	586	4,519
Other senior executives (3 persons)	5 091	1,844	157	937		8,029
Total, management	8,769	4,532	325	1,813	586	16,025
Hans Wigzell, Chairman from 29 Dec 2017, former Board member	200					200
Niclas Adler, Chairman 24 May – 29 Dec 2017, former Board member	300					300
Bo Jesper Hansen, fee as consultant <sup>1</sup>	539					539
Bo Jesper Hansen, Chairman through 24 May 2017	219					219
Henrijette Richter, Board member through 24 May 2017	131					131
Vlad Artamonov, Board member	200					200
Tse Ping, Board member	200					200
Khalid Islam, Board member through 24 May 2017	131					131
Carl-Johan Sundberg, Board member through 24 May 2017	100					100
Anders Härfstrand, Board member from 24 May 2017	100					100
Magnus Persson, Board member from May 24	100					100
Hans-Olov Olsson, Board member 24 May – 31 Oct 2017	83					83
Total, Board of Directors	2,303	-	-	-		2,303
Total	11,072	4,532	325	1,813	586	18,329

<sup>&</sup>lt;sup>1</sup> Refers to assignment as consultant over and above his role as Chairmen of the Board; see below. 2017 covers 5 months.

<sup>&</sup>lt;sup>2</sup> PSP program refers to recognized costs, excluding social security contributions, for PSP 2015 in 2017. For a description of the program, see below.

#### 2016

SEK 000	Base salary/ Board fee	Variable remuneration	Other benefits and remuneration	Pension costs	PSP program <sup>3</sup>	Total remuneration
Jim Van heusden CEO	2,484	413	347	502	709	4,455
Other senior executives (3 persons)	4,610	778	247	1,179	187	7,001
Total, management	7,094	1,191	594	1,681	896	11,456
Bo Jesper Hansen, fee as consultant <sup>1</sup>	1,294					1,294
Bo Jesper Hansen, Chairman	400					400
Hans Wigzell, Board member	200					200
Carl-Johan Sundberg, Board member	200					200
Henrijette Richter, Board member	200					200
Vlad Artamonov, Board member	200					200
Tse Ping, Board member	200					200
Khalid Islam, Board member	200					200
Niclas Adler, Board member	200					200
Total, Board of Directors	3,094	-	-	-	-	3,094
Total	10,188	1,191	594	1,681	896	14,549

Information as of closing date

	2017	2016
Board of Directors		
Men	5	7
Women	1	1
	6	8
CEO and senior executives		
Men	4	4
Women	0	0
	4	4

Gender distribution of senior executives and Board of Directors

#### Compensation to the CEO

#### **Pension terms**

A contractual pension amounts to 22% of gross salary, consisting of premiumbased compensation.

#### Variable remuneration to the CEO

The CEO is entitled to a bonus based on exits in the portfolio. The remuneration amounts to 1/3 of 4% of the net proceeds paid to the company upon the exit. The remuneration includes all of the company's costs in relation to the payment. The maximum payment, together with the payment to other senior executives reported in the first paragraph of the section "Variable remuneration to other executive managers", is limited to SEK 50 million per exit and calendar year. The CEO is also eligible for STI 2017 and LTI 2017, which are reported in the section "Annual incentive programs" below.

<sup>&</sup>lt;sup>1</sup> Refers to assignment as consultant over and above his role as Chairmen of the Board: see below. 2017 covers 5 months.

<sup>&</sup>lt;sup>3</sup> PSP program refers to recognized costs, excluding social security contributions, for PSP 2014 and PSP 2015 in 2016. For a description of the programs, see below.

#### Severance, other executive managers

No senior executives are entitled to severance. According to the *Guielines for Remuneration to Executive Management*, severance may be paid to the CEO only. There has been one deviation from the Guidelines during the year. Severance was paid to the former CFO. There was a special reason for the deviation. At the shift of CFO, it was of great importance to ensure a smooth transition period. This circumstance was not known when the 2017 Guidelines were adopted by the AGM.

# Remuneration to company associated with the Chairman of the Board

Karolinska Development AB previously had an agreement with OrfaCare Consulting GmbH, a company associated with then Chairman of the Board, for consulting services performed by Bo Jesper Hansen unrelated to his position as Chairman. The agreement expired on the date of the Annual General Meeting 2017. Remuneration for the services performed is market based and amounted to SEK 539 thousand (SEK 1,294 thousand).

#### Variable remuneration

#### Variable remuneration to other executive managers

Other executive managers are entitled to a bonus based on exits in the portfolio. The remuneration to other senior executives totals 2/3 of 4% of the net proceeds paid to the company upon the exit. The remuneration includes all of the company's costs in relation to the payment. The maximum payment, together with the payment to the CEO reported in the section "Variable remuneration to the CEO," is limited to SEK 50 million per exit and calendar year. The former CEO was eligible for PSP 2015, but only partially. Other senior executives and (partially) the former CEO are eligible for STI 2017 in the section "Incentive programs" below.

### **Annual incentive programs**

Karolinska Development's annual long-term incentive programs (LTI) for the years 2008-2010, 2014-2015 and 2017 and the Company's annual short-term incentive programs (STI) for the years 2016 and 2017 are described below.

#### Incentive programs 2008 - 2010

No current employees of the Company are covered by the program.

The program was designed as a combined warrant and profit-sharing program consisting of three annual stages for the years 2008-2010. The warrants have expired.

Each profit-sharing plan is related to appreciation in the value of the portfolio companies and extends 15 years. The 2008 profit-sharing program is related to the Company's investment portfolio as of 31 December 2007, while the 2009 and 2010 programs refer to the investments that the Company made in the calendar year before the sub-plan.

Each sub-plan provides entitlement to a cash payment equivalent to a total of 5% of the portion of the return on the investments encompassed by the sub-plan, in excess of a threshold rate. The threshold rate consists of the initial value of the investments encompassed by a specific sub-plan, to the extent they have been exited, adjusted by an annual rate of 6% for the years 2008-2012 and 8% thereafter. On the "plus side" are the proceeds received from exits.

To the extent that returns exceed an annual return of 35%, the portion that exceeds the returns is halved to 2.5%. To the extent that returns exceed 50%, the amount in excess of 50% will be further halved to 1.25%. Excess returns above 60% are not eligible for profit-sharing.

In addition to the portion of excess returns as stated above, the sub-plan 2010 also provides entitlement to a total of 37.5% of KDAB Carried Interest, according to the limited partnership agreement the Company has entered into with the European Investment Fund ("EIF") related to KCIF Co-Investment Fund KB ("KCIF"). KDAB Carried Interest can be summarized as 20% of any return exceeding an annual threshold rate of 6% of – and after repayment of – the amounts that the Company and EIF have committed to KCIF. According to the agreement with EIF, Karolinska Development is entitled to the current portion of the KDAB Carried Interest only if it is included in the Company's profit-sharing plan. As a result, this portion of the profit-sharing plan essentially means that the Company, despite accounting costs that arise, is not foregoing any amount it otherwise would have had available, with the exception of the additional social security contributions that this profit-sharing entails for the Company.

Outcome: No payments have been made as part of the program.

# Performance-based share incentive program 2014 (PSP 2014)

The Annual General Meeting 2014 adopted a performance-based share incentive program for employees where participants acquire shares ("Savings Shares") on the open market. Under certain conditions participants may receive, free of charge, a maximum of five Performance Shares and one Matching Share Right from the company for each Savings Share they purchase. Matching Share Rights and Performance Shares are allotted after three years. The maximum number of Performance Shares and Matching Share Rights is 761,350. The program comprises a maximum of fourteen participants.

Although there are no performance conditions for the Matching Share Rights, each participant must remain an employee during the vesting period. The Performance Shares have a target related to Karolinska Development's share price performance and a comparison between the so-called Start Price and End Price. The Start Price, measured as an average over ten trading days from 18 May 2014 through 28 May 2014, is SEK 24.45. The End Price is measured

as the average over ten trading days beginning on 2 May 2017. For an allotment, the share price must rise by a total of 30% above the Start Price. For a maximum allotment (five Performance Shares per Savings Share), the share price must rise by 75% above the Start Price. Within this span, allotments are made proportionately. Allotments are capped at 35 times the Start Price, after which the number of allotted Performance Shares is reduced. Participants will be compensated in cash for dividends paid during the period.

The Company intends to cover social security contributions related to the program by acquiring and transferring a maximum of 182,000 of its own shares. As of 31 December 2014, 41,200 Savings Shares had been acquired. The company's own shares are not repurchased.

An expense of SEK 600 thousand was recognized for PSP 2014 in 2007. (The recognized expense in 2016 amounted to SEK 300 thousand.)

The program concluded in 2017, at which point a total of 23,840 Matching Shares had been allocated. No Performance Shares were awarded. Among management, other senior executives were allotted 16,200 Matching Shares valued at SEK 72 thousand, the former senior executive Terje Kalland was allotted 5,973 Matching Shares valued at SEK 27 thousand. The total value of allotted Matching Shares was SEK 106 thousand.

#### Performance-based share incentive program 2015 (PSP 2015)

The 2015 Annual General Meeting adopted a new performance-based share incentive program for employees where participants acquire shares ("Savings Shares") on the open market. Under certain conditions participants may receive, free of charge, a maximum of five Performance Shares and one Matching Share Right from the company for each Savings Share they purchase. Matching Share Rights and Performance Shares are allotted after three years. The maximum number of Performance Shares and Matching Share Rights was 1,078,410. The program comprises a maximum of ten participants.

To receive Matching Share Rights, a participant must still be employed during the vesting period. The Performance Shares have a target related to Karolinska Development's share price performance and a comparison between the so-called Start Price and End Price. The Start Price, measured as an average over ten trading days from 21 May 2015 through 3 June 2015, is SEK 11.39. The End Price is measured as the average over ten trading days beginning on 2 May 2018. For an allotment, the share price must rise by a total of 15% above the Start Price. For a maximum allotment (five Performance Shares per Savings Share), the share price must rise by 100% above the Start Price. Within this span, allotments are made proportionately. Allotments are capped at 35 times the Start Price, after which the number of allotted Performance Shares is reduced. Participants will be compensated in cash for dividends paid during the period.

The Company intends to cover social security contributions related to the program by acquiring and transferring a maximum of 338,840 of its own shares. As of 30 September 2015, 74,850 Savings Shares had been acquired, which are related to previous share based programs, however.

An expense of SEK 0.6 million (SEK 0.9 million) was recognized for PSP 2015 in 2017. The expense is for former CEO Jim Van heusden. The expense, excluding social security contributions, is included in the table above under the heading PSP program.

#### LTI 2017

The Annual General Meeting 2017 resolved on a Long Term Incentive program, "Warrant Program 2017/2020," for all Company employees, according to the following terms. A maximum of 3,216,836 warrants will be issued. Each warrant entitles the holder to subscribe for one (1) series B share in the company. Subscription of shares by virtue of the warrants may be effected during the period 30 June 2020 - 31 August 2020. The subscription price per share will correspond to 250% of the volume weighted mean value according to Nasdaq Stockholm's official price list for shares of series B in the Company during the ten (10) trading days immediately following the Annual General Meeting 2017.

The warrants were allocated as follows: to the CEO, 1,608,418; to other senior executives, 402,105 each; and to other employees, 107,228 each. In total, 3,136,416 warrants were subscribed. The remaining 80,420 warrants are available to allocate to current and future employees.

#### **Short Term Incentive Program 2016 (STI 2016)**

In 2016, the Board of Directors decided on a Short Term Incentive Program, STI 2016, for senior executives based on a number of specific corporate goals established by the Board for 2016. The goals are designed to promote Karolinska Development's long-term value appreciation. The remuneration is dependent on whether one or more goals are met and has a fixed cap corresponding to 4.5 months' base salary for each participant. Goals were partly met, which rendered an accrual of SEK 1.1 million (SEK 1.5 million including social security costs). The expense is included as variable remuneration in the above table in 2016.

#### **Short Term Incentive Program STI 2017**

In 2017, the Board of Directors decided on a Short Term Incentive Program, STI 2017, for senior executives based on a number of specific corporate goals established by the Board for 2017. The goals are designed to promote Karolinska Development's long-term value appreciation. The remuneration is dependent on whether one or more goals are met and has a fixed cap corresponding to 6 months' base salary for each participant. Goals were partly met, which rendered an accrual of SEK 3.4 million (SEK 4.5 million including social security costs). The expense is included as variable remuneration in the above table in 2017.

#### Note 6

#### Interest expenses and other financial gains and losses

#### Interest expenses

SEK 000	2017	2016
Accrued interest convertible loan	-43,494	-45,233
Interest expenses	-1	-4
Total	-43,495	-45,237

#### Other financial gains and losses

SEK 000	2017	2016
Change in value of short-term investments	-243	-115
Exchange rate gains and losses	-24	-27
Other financial expenses / income	-1,702	642
Total	-1,969	500

#### Note 7

#### **Taxes**

#### Reconciliation of effective tax rate

SEK 000	%	2017	%	2016
Profit/loss before tax		179,595		-216,832
Income tax expense calculated at applicable rate in the Parent Company Tax effect of	22.0%	-39,511	22.0%	47,703
Non-deductible expenses		-2,130		-297
Tax-exempt revenue		2,889		1,537
Issue costs		578		-
Changes in fair value, non-taxable/ non-deductible		56,002		-32,337
Increase in tax losses carried forward without corresponding capitalization of deferred taxes		-17,829		-16,605
Recognized current tax	0.0%	0	0.0%	0
Change in deferred tax	0.0%	-	0.0%	
Recognized deferred tax	0.0%	-	0.0%	
Total recognized tax	0.0%	-	0.0%	

### Unrecognized deferred tax assets

Deductible temporary differences and tax losses carried forward for which deferred tax assets have not been recognized through profit or loss and the balance sheet primarily relate to losses generated by the Parent Company. Any future gains on the sale of business-related shares and participations in the portfolio companies are non-taxable profits. Deferred tax assets have therefore not been recognized for these losses, since it is unlikely that Karolinska Development AB will be able to utilize the tax losses carried forward to offset future taxable profits, despite that there is no time limit on these tax losses carried forward. Unrecognized deferred tax assets for Karolinska Development amounted to SEK 143,549 thousand (SEK 125,720 thousand) at year-end 2017, and SEK 54,552 thousand (SEK 64,337 thousand) relates to deficits that are restricted by Group contributions and mergers.

#### Note 8

### **Tangible non-current assets**

SEK 000	31 Dec 2017	31 Dec 2016
Accumulated acquisition cost		
At the beginning of the year	0	659
Sales and disposals	0	-659
Closing balance	0	0
Accumulated depreciation and impairments		
At the beginning of the year	0	-553
Depreciation for the year	0	-106
Sales and disposals	0	659
Closing balance	0	0
Carrying amount	0	0

#### **Finance leases**

The Investment Entity did not enter into any finance leases in 2017, 2016 or any prior period.

### Note 9

# Shares in portfolio companies at fair value through profit or loss

SEK 000	31 Dec 2017	31 Dec 2016
Accumulated acquisition cost		
At the beginning of the year	149,408	267,651
Effect of voluntary change in accounting policy	-	-
Investments during the year	91,869	19,669
Reclassification from receivables from portfolio companies, Note 10	-	9,076
Sales during the year	-45,566	-
Changes in fair value in net profit/loss for the year	252,072	-146,988
Closing balance	447,783	149,408

#### Note 10

### Loans receivable from portfolio companies

SEK 000	31 Dec 2017	31 Dec 2016
Loans receivable from portfolio companies		
At the beginning of the year	957	914
Loans provided	25,347	26,987
Interest	-	1,908
Conversions	-22,896	-19,819
Reclassification to fair value portfolio companies, Note 9	-	-9,076
Foreign exchange difference	28	43
Total	3,436	957

The Investment Entity's investments in portfolio companies are in the form of new issued shares or through loans that are interest bearing and expire or are converted to shares within 12 months.

#### Note 11

#### Other current receivables

SEK 000	31 Dec 2017	31 Dec 2016
Tax receivables	483	496
VAT receivables	-	-
Other	48	164
Total	531	660

# Note 12

# Prepaid expenses and accrued income

SEK 000	31 Dec 2017	31 Dec 2016
Prepaid rental expenses	186	297
Accrued interest income	50	78
Insurance premiums	198	229
Other	232	202
Total	666	806

# Note 13

# **Equity**

# Changes in share capital

Year	Year	Number of shares	Share capital	Number of A shares	Number of B shares	Subscription price	Par value
Total per 1 Jan 2011		33,331,417	16,665,709	1,503,098	31,828,319		0,5
April 2011	Share issue	15,200,000	7,600,000	0	15,200,000	40	0,5
Total per 31 Dec 2011		48,531,417	24,265,709	1,503,098	47,028,319		0,5
Total per 31 Dec 2012		48,531,417	24,265,709	1,503,098	47,028,319		0,5
Total per 31 Dec 2013		48,531,417	24,265,709	1,503,098	47,028,319		0,5
December 2014	Share issue	4,853,141	2,426,570		4,853,141	13	0,5
Total per 31 Dec 2014		53,384,558	26,692,279	1,503,098	51,881,460		0,5
December 2015	Share issue	65,082	32,541		65,082		0,5
Total per 31 Dec 2015		53,449,640	26,724,820	1,503,098	51,946,542		0,5
September 2016	Share issue	15,358	7,679		15,358		0,5
Total per 31 Dec 2016		53,464,998	26,732,499	1,503,098	51,961,900		0,5
April 2017	Share issue	10,871,698	5,435,849		10,871,698		0,5
June 2017	Reduction in share capital	-	-31,524,981		-		0,01
July 2017	Share issue	564	6		564		0,01
August 2017	Share issue	23,840	238		23,840		0,01
October 2017	Share issue	106	1		106		0,01
Total per 31 Dec 2017		64,361,206	643,612	1,503,098	62,858,108		0,01

#### Net asset value per share

	Investme	Investment Entity			
SEK 000	31 Dec 2017 31 Dec 20				
Net assets					
Cash and cash equivalents	19,305	10,602			
Short-term investments	150,329	237,545			
Loans receivable from portfolio companies	3,436	957			
Net financial assets and liabilities	35,789	33,315			
Convertible loan	-379,184	-394,438			
Total net assets	-170,325	-112,019			
Estimated fair value of portfolio companies	447 783	149 408			
Total net asset value	277,458	37,389			
Number of shares	64,116,921	53,220,713			
Net asset value per share	4.33				

#### **Share structure**

The number of shares amounts to 64,361,206, of which 1,503,098 are series A shares and 62,858,108 are series B shares. Series A shares carry ten votes per share and series B shares carry one vote per share. All shares have an equal right to the Company's assets in the case of liquidation and profit distributions. All series B shares have been listed for trading on the main list of Nasdaq OMX since 15 April 2011.

In 2012 and 2013, a total of 244,285 shares with a par value of SEK 0.01, corresponding to SEK 2,443 in share capital, were repurchased for consideration amounting to SEK 4,726,904 The shares were repurchased to cover the social security costs in the PSP incentive programs.

### Other contributed capital

Relates to capital contributed by the owners.

#### Retained earnings incl. net profit/loss for the year

Retained earnings including current year results include retained earnings of the Parent Company. Previous allocations to the statutory reserve are included in this equity item.

### Earnings per share basic and diluted

SEK 000	2017	2016
Net profit/loss for the year	179,595	-216,832
Weighted average number of shares, before dilution	61,243,234	53,210,223
Earnings per share, SEK, before dilution	2.93	-4.08
Weighted average number of shares, after dilution	61,300,516	53,210,223

#### Note 14

#### Convertible loan

Karolinska Development has issued convertibles, so-called compound financial instruments, in which the holder has right to convert to shares and where the number of shares that are issued is not affected by changes in the fair value of the shares.

The liability component of a compound financial instrument is initially recognized at fair value for a similar liability without a conversion right to shares. The equity component is initially recognized as the difference between the total fair value of the compound financial instrument and the fair value of the liability component. Directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts.

After acquisition, the liability component of the compound financial instrument is valued at amortized cost using the effective interest method. The equity

component of a compound financial instrument is not revalued after acquisition, except upon conversion or redemption.

Karolinska Development issued convertibles with a nominal amount of SEK 386,859 thousand on 2 January 2015 which carry a nominal interest rate of 8%. The nominal amount decreased to SEK 329,258 thousand after the convertible issue in March 2017. The convertible falls due for payment on 31 December 2019 at its nominal amount of SEK 483,788 thousand (the interest is cumulative) or can at any time be converted to shares on the request of the holder at a price of SEK 22 per B share. The value of the liability and equity components (conversion right) was determined on the date of issuance.

The convertibles are presented in the balance sheet according to the following table.

SEK 000	31 Dec 2017	31 Dec 2017	31 Dec 2016	31 Dec 2016
		Of which affect cash flow		Of which affect cash flow
Nominal value of convertible debenture issued on 2 January 2015	386,859		386,859	
Less issue expenses	-28,171		-28,171	
Share of equity	-49,528		-49,528	
Liability at issuance 2 January 2015	309,160	0	309,160	0
Accrued interest expenses	128,766		85,278	
Converted nominal liability	-57,522		-	
Converted share of issue expenses	4,189		-	
Converted share of equity	7,364		-	
Converted accrued interest	-12,680		-	
Redemption of convertible	-93	-93	-	
Total	379,184	-93	394,438	0

# Note 15

### Other current liabilities

SEK 000	31 Dec 2017	31 Dec 2016
Other taxes and fees	1,627	960
Total	1,627	960

# Note 16

# Accrued expenses and prepaid income

SEK 000	31 Dec 2017	31 Dec 2016
Salaries and remuneration to employees	5,079	1,823
Accrued remuneration to Board of Directors	171	149
Accrued auditor and consultant fees	585	582
Payroll tax and accrued pension costs	1,618	1,585
Accrued employer's contributions	1,895	861
Other	15	1,849
Total	9,363	6,849

# Note 17

### Financial assets and liabilities

# Financial assets and liabilities by category

2017		'			
SEK 000	Financial assets at fair value through profit or loss	Loans and receivables	Other financial liabilities	Total carrying amount	Fair value
Shares in portfolio companies at fair value through profit or loss	447,783			447,783	447,783
Loans receivable from portfolio companies		3,436		3,436	3,436
Other financial assets	40,596			40,596	40,596
Receivables from portfolio companies		611		611	611
Short-term investments at fair value through profit or loss	150,329			150,329	150,329
Cash and cash equivalents		19,305		19,305	19,305
Total	638,708	23,352	0	662,060	662,060
Convertible loan			379,184	379,184	379,184
Other financial liabilities			4,807	4,807	4,807
Accounts payable			1,155	1,155	1,155
Liabilities to portfolio companies			-	0	0
Total			385,146	385,146	385,146

2016					
SEK 000	Financial assets at fair value through profit or loss	Loans and receivables	Other financial liabilities	Total carrying amount	Fair value
Shares in portfolio companies at fair value through profit or loss	149,408			149,408	149,408
Loans receivable from portfolio companies		957		957	957
Other financial assets	38,113			38,113	38,113
Receivables from portfolio companies		229		229	229
Short-term investments at fair value through profit or loss	237,545			237,545	237,545
Cash and cash equivalents		10,602		10,602	10,602
Total	425,066	11,788	0	436,854	436,854
Convertible loan			394,438	394,438	394,438
Other financial liabilities			4,798	4,798	4,798
Accounts payable			1,460	1,460	1,460
Liabilities to portfolio companies			-	0	0
Total			400,696	400,696	400,696

#### **Short-term investments**

Surplus liquidity that may temporarily arise in Karolinska Development is placed in fixed income funds or interest-bearing instruments and is recognized as short-term investments with a remaining duration exceeding three months.

#### Fair value measurement

The table below shows financial instruments measured at fair value based on the classification in the fair value hierarchy. The various levels are defined as follows:

Level 1 - Fair value determined on the basis of observed (unadjusted) quoted prices in an active market for identical assets and liabilities

Level 2 - Fair value determined based on inputs other than quoted prices included within Level 1 that are observable for the asset or liability, directly or indirectly

Level 3 - Fair value determined based on valuation models where significant inputs are based on non-observable data

The carrying amounts of financial assets and liabilities measured at amortized cost approximate their fair value.

# Investment Entity's assets and liabilities at fair value as of 31 December 2017

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies at fair value through profit or loss	14,083		433,700	447,783
Loans receivable from portfolio companies		3,436		3,436
Other financial receivables			40,596	40,596
Receivables from portfolio companies		611		611
Cash and cash equivalents and short-term investments	169,634			169,634
Total	183,717	4,047	474,296	662,060
Financial liabilities				
Other financial liabilities			4,807	4,807
Accounts payable		1,155		1,155
Total		1,155	4,807	5,962

# Investment Entity's assets and liabilities at fair value as of 31 December 2016

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies at fair value through profit or loss			149,408	149,408
Loans receivable from portfolio companies		957		957
Other financial receivables			38,113	38,113
Receivables from portfolio companies		229		229
Cash and cash equivalents and short-term investments	248,147			248,147
Total	248,147	1,186	187,521	436,854
Financial liabilities				
Other financial liabilities			4,798	4,798
Accounts payable		1,460		1,460
Total		1,460	4,798	6,258

The following describes the main methods and assumptions used to determine the fair value of financial assets and liabilities in the tables above.

# Shares in associated companies and other long-term holdings (unlisted holdings)

The valuation of unlisted holdings is based on the International Private Equity and Venture Capital Valuation Guidelines. For a further description, see Note 1 Accounting policies, "Valuation of portfolio companies."

#### Financial assets and liabilities at fair value

A fair value estimate is made based on discounted future cash flows, where a discount rate reflecting the counterparty's credit risk is the most significant input. For financial assets in Level 2, a discount rate of 7% has been used. For financial liabilities, there is no significant difference compared to the carrying amounts included in Level 2, so the carrying amounts are considered a good approximation of fair value.

#### Changes in financial assets and liabilities on Level 3 in 2017

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At the beginning of the year	149,408	38,113	4,798
Transfers to and from Level 3	-14,083	-	-
Acquisitions	91,869	-	-
Disposals	-45,566	-	-
Gains and losses realized in profit or loss	252,072	2,483	9
Carrying amount at year-end	433,700	40,596	4,807
Total unrealized gains and losses for the period included in profit or loss	45,820	0	0
Unrealized gains and losses for the period included in profit or loss	206,252	2,483	-9

There were no transfers between Level 1 and 2 in 2017.

## Changes in financial assets and liabilities on Level 3 in 2016

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At the beginning of the year	267,651	38,113	5,439
Acquisitions	28,745	-	-
Disposals	-444	-	-
Gains and losses realized in profit or loss	-146,544	-	-641
Carrying amount at year-end	149,408	38,113	4,798
Total unrealized gains and losses for the period included in profit or loss	-513	-	-
Unrealized gains and losses for the period included in profit or loss	-146,031	-	-641

There were no transfers between Level 1 and 2 in 2016.

The Investment Entity recognizes transfers between levels in the fair value hierarchy on the date when an event or changes occur that give rise to the transfer.

# Impact on the portfolio's fair value of the agreement with Rosetta Capital

"Potential distribution to Rosetta Capital" is the amount of SEK 266.2 million that KDev Investments, according to the investment agreement between Karolinska Development and Rosetta Capital, is obligated to distribute to Rosetta Capital from the proceeds received by KDev Investments (KDev Investments' fair value). The amount includes repayment of SEK 35.3 million that Rosetta Capital currently has invested in KDev Investments' portfolio companies and dividends on Rosetta Capital's preference and common shares. The distribution to Rosetta Capital will take place only when KDev Investments distributes a dividend. KDev Investments will only distribute dividends after all accounts payable and outstanding liabilities have been repaid.

# Expanded fair value calculations taking into consideration the portfolio valuation and potential distribution to Rosetta Capital

SEK 000	31 Dec 2017	31 Dec 2016
Fair value of Karolinska Development portfolio (unlisted companies)	413,844	143,657
Fair value of Karolinska Development portfolio (listed companies)	14,083	-
Fair value of KDev Investments portfolio (unlisted companies)	286,070	261,586
Total Portfolio Fair Value <sup>1</sup>	713,997	405,243
Potential distribution to Rosetta Capital of fair value in KDev Investments <sup>2</sup>	266,214	255,837
Net Portfolio Fair Value (after potential distribution to Rosetta Capital) 3	447,783	149,406

#### Information on fair value measurement in level 3

The valuation of the company's portfolio is based on the International Private Equity and Venture Capital Valuation Guidelines (IPEV) and IFRS 13 Fair Value Measurement. See Note 1 Accounting policies, Valuation methods.

#### **Financial risks**

Through its activities, the Investment Entity is exposed to various financial risks. Financial risks refer to fluctuations in operating results and cash flow as a result of changes in exchange rates, interest rates, refinancing and credit risks. Responsibility for the Investment Entity's financial transactions and risks rests with both the Parent Company's finance department and the local subsidiaries. The overarching objective of the finance function is to provide cost-effective financing and to minimize adverse effects on the Investment Entity's earnings from market fluctuations.

#### **Currency risk**

Currency risk is the risk that changes in exchange rates will negatively impact the Investment Entity. The Investment Entity's foreign exchange exposure consists of transaction exposure resulting in exposure in foreign currency linked to the contractual cash flows and balance sheet items where changes in exchange rates affect the results and cash flows. The Investment Entity's exposure to currency risk is not significant.

#### **Credit risk**

Credit risk is the risk that the counterparty to a transaction fails to fulfill its obligations under the contract and that any guarantee does not cover the Investment Entity's claim. Maximum credit risk exposure is equivalent to the book value of financial assets.

The credit risk in cash, cash equivalents and short-term investments is limited as the Investment Entity's counterparties are banks with high credit ratings.

#### Assets exposed to credit risk

SEK 000	31 Dec 2017	31 Dec 2016
Loans receivable from portfolio companies	3,436	957
Other financial assets	40,596	38,113
Receivables from portfolio companies	611	229
Other current receivables	531	660
Short-term investments	150,329	237,545
Cash and cash equivalents	19,305	10,602
Maximum exposure to credit risk	214,808	288,106

#### Price risk

The Investment Entity is exposed to share price risk on the Investment Entity's holdings in portfolio companies measured at fair value (shares in associated companies, joint ventures and other long-term securities holdings). The Investment Entity otherwise is not exposed to valuation risk.

#### Interest risk

Interest risk is the risk that changes in market interest rates affect cash flow or the fair value of financial assets or liabilities. The Investment Entity's investment guideline is to invest in fixed income funds or interest-bearing instruments with low risk, because of which the risk associated with interest rate changes is low.

- <sup>1</sup> Definition of "Total Portfolio Fair Value" is indicated in Note 1.
- <sup>2</sup> SEK 35.3 million repayment of Rosetta Capital's investments in KDev Investments and SEK 230.9 million distribution of dividends on common and preference shares.
- <sup>3</sup> Definition of "Net Portfolio Fair Value (after potential distribution to Rosetta Capital)" is indicated in Note 1.

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#### Liquidity risk

Liquidity risk is the risk that the Investment Entity cannot meet its short-term payment obligations. The Investment Entity's guidelines state that the liquidity reserve must remain at such a level that it meets the Investment Entity's ongoing liquidity requirements and requirements for investments in portfolio companies for the following six-month period. The Company's liquid funds on the closing date provide the Investment Entity with the scope to maintain an active strategy with regard to investments in the portfolio companies for 12 months.

#### 2017

SEK 000	Within 3 months	3-12 months	1-5 years	Over 5 years	Total
Convertible loan <sup>1</sup>	-	-	483,788	-	483,788
Accounts payable	1,155	-	-	-	1,155
Other current liabilities	1,627	-	-	-	1,627
Total	2,782	-	483,788	-	486,570

<sup>&</sup>lt;sup>1</sup>See Note 14 Convertible loan

#### 2016

SEK 000	Within 3 months	3-12 months	1-5 years	Over 5 years	Total
Convertible loan	-	-	568,423	-	568,423
Accounts payable	1,460	-	-	-	1,460
Other current liabilities	960	-	-	-	960
Total	2,420	-	568,423	-	570,843

#### **Management of capital risks**

The Investment Entity's capital management objective is to ensure the Investment Entity's capacity to continue operations, generate reasonable returns for shareholders and provide benefits to other stakeholders. The Investment Entity's policy is to minimize the risks in capital management. In accordance with the Investment Entity's investment guidelines, surplus liquidity is managed by an external manager. The portfolio will maintain an average term of no longer than 1.5 years and invest in fixed income funds or interest-bearing instruments.

# Note 18

# Pledged assets and contingent liabilities

SEK 000	31 Dec 2017	31 Dec 2016
Pledged assets		
Endowment insurance	-	3,804
Total pledged assets	-	3,804

#### **Endowment insurance**

Individual pension undertakings have been guaranteed in the form of Companyowned endowment insurance policies. The Investment Entity (which include the Parent Company), has no further obligation to cover possible shortfalls in the endowment insurance or to pay any amount in excess of the premiums paid, due to which the Investment Entity considers these pension plans to be defined contribution pension plans. Accordingly, payment of premiums corresponds to final settlement of the undertaking vis-à-vis the employee.

In accordance with IAS 19 and the regulations for defined contribution pension plans, the Investment Entity (and the Parent Company) therefore reports no assets or liabilities, with the exception of special payroll contributions, related to these endowment insurance policies.

#### Other contingent liabilities

#### Rosetta put option

On 7 March 2013, Rosetta Capital IV LP acquired 13.66% of KDev Investments AB for a total purchase price of SEK 220 million. According to the agreement, Karolinska Development is obligated, under certain conditions, to redeem Rosetta's shares in KDev Investments AB which may be requested for a period of 60 days from 7 March 2018. According to the terms, Rosetta has the right to request redemption if Rosetta has not received a return equivalent to 2.5 times the capital invested to acquire the shares in KDev Investments AB. The value of the put option corresponds to the fair value of the shares in KDev Investments that Rosetta owns at the time of redemption. The obligation is limited to a value corresponding to 10% of the outstanding shares in Karolinska Development and can be fulfilled through the issuance of shares or payment in cash. Karolinska Development considered the fair value of the put option in issue to be zero as of the closing date. Rosetta Capital has not exercised the option at the date of the publication of this annual report on 21 March 2018.

#### Note 19

#### **Related parties**

#### **Affiliates**

The Investment Entity has a related party relationship with its subsidiaries, joint ventures, associated companies and the companies in the Karolinska Institutet Holding AB Group.

Karolinska Development has a non-exclusive deal flow agreement with Karolinska Institutet Holding AB ("KIHAB") and Karolinska Institutet Innovations AB ("KIAB"), a wholly owned subsidiary of KIHAB. As part of the agreement, a new incubator fund will be established with a focus on identifying potentially valuable new medical innovations at Karolinska Institutet at an early stage.

Furthermore, Karolinska Development has rendered services to the portfolio companies in the areas of management, communication, finance and administration, including legal and analytical operations. Prices of services rendered have been market based.

Karolinska Development and the European Investment Fund ("EIF") have entered into an agreement whereby EIF invests in parallel with Karolinska Development in portfolio companies. The investments are made through KCIF Co-Investment KB ("KCIF"). In November 2009, KCIF entered into an agreement with Karolinska Development according to which KCIF will invest in parallel with Karolinska Development at a ratio of 27:73 (KCIF: Karolinska Development) on the condition that certain stated investment criteria are fulfilled. The investors and limited partners in KCIF are EIF, which has committed EUR 12.9 million, and Karolinska Development, which has committed EUR 4.5 million. The amounts are paid to KCIF as needed to make investments, to cover KCIF's expenses, and to pay an annual management fee to KCIF Fund Management AB ("FMAB"), a limited partner responsible for the operation of KCIF. The management fee for the financial year 2017 amounted to SEK 541 thousand (489).

FMAB is 37.5% owned by Karolinska Development, 25% by KIAB and 37.5% by investment managers employed by Karolinska Development. The investment managers hold high-vote shares and together control a majority of the votes in FMAB. Currently, however, all these shares are also owned by Karolinska Development because the number of investment managers has decreased. Karolinska Development, KIAB and investment managers have entered into a shareholder agreement regarding FMAB. The shareholder agreement includes a number of rules to protect the minority shareholders, Karolinska Development and KIAB.

### Compensation and profit distribution

FMAB is entitled to an annual management fee corresponding to 2.5% of the capital committed to KCIF during the investment period and 1% of invested capital thereafter. In practice, FMAB fulfills its obligations to manage the operations of KCIF by purchasing services from Karolinska Development according to a service agreement. The service agreement entitles Karolinska Development to annual compensation equivalent to what remains of the management fee after deducting FMAB's other expenses and a certain buffer for future expenses in FMAB. Any dividends from KCIF will essentially be distributed as follows. First, EIF and Karolinska Development will receive an amount corresponding to the portion of the committed capital paid to KCIF at the time of the dividend payment and annual interest of 6% on this amount.

Secondly, 80% of the remaining funds will be distributed to EIF and Karolinska Development in proportion to their capital investment. The remaining 20% will be distributed to Karolinska Development on the condition that 25% of the amount is redistributed to KIAB and at least 37.5% is redistributed to the investment managers through Karolinska Development's profit-sharing program.

Through its ownership and managerial role, Karolinska Development has concluded that it controls FMAB and therefore considers FMAB to be a subsidiary. The indirect ownership in the portfolio companies through KCIF holding has been included in Karolinska Development's share of the portfolio companies, Note 34.

		2017			2016		
SEK 000	Sale of services	Interest income	Purchase of services	Sale of services	Interest income	Purchase of services	
Associate relationship							
Owner: Karolinska Institutet Holding Group			1,151	0	-	1,752	
(of which rental cost)			(1,028)			(1,618)	
Portfolio companies	2,482	4,549	21	1,830	1,903	0	
Total	2,482	4,549	1,172	1,830	1,903	1,752	

	31 Dec 2017		31 Dec 2016	
SEK 000	Liability to associates	Receivable from associates	Liability to associates	Receivable from associates
Associate relationship				
Karolinska Institutet Holding Group	186	-	458	-
Portfolio companies	21	99,802	0	30,522
Total	208	99,802	458	30,522

### Note 20

### Significant events after the closing date

### Karolinska Development

No significant events have occurred after the closing date.

### Note 21

### Parent Company's accounting policies

The Parent Company's annual report has been prepared in accordance with the Swedish Annual Accounts Act (1995:1554) and recommendation RFR 2 Accounting for Legal Entities from the Swedish Financial Reporting Board. Statements UFR 7 and 9 from the Swedish Financial Reporting Board have been applied as well. Application of RFR 2 means that the Parent Company will apply all EU-approved IFRS as far as possible within the framework of the Annual Accounts Act and the Pension Obligations Vesting Act and take into consideration the relationship between reporting and taxation. The policies described in Note 1 regarding the Investment Entity also apply to the Parent Company unless otherwise indicated below.

A voluntary change in accounting policy was made by the Parent Company in the second quarter of 2017 with respect to the policy for recognition of investments in portfolio companies (subsidiaries, associated companies, joint ventures and other long-term securities holdings) and other financial assets and liabilities. All investments in shares in portfolio companies are now recognized at fair value through profit or loss in both the Investment Entity's and the Parent Company's balance sheet (previously based on the lower of cost and fair value). Comparable figures have been restated, see Note 45.

The following accounting policies for the Parent Company have been applied consistently to all periods presented in the Parent Company's financial statements.

### **Subsidiaries**

Shares in subsidiaries are recognized at fair value in the Parent Company's financial statements.

### Associated companies and joint ventures

Shares in associated companies and joint ventures are recognized at fair value in the Parent Company's financial statements. Dividends are recognized as revenue when they are adopted by the Annual General Meeting.

### Other long-term securities holdings

Shares in other long-term securities holdings are recognized at fair value in the Parent Company's financial statements.

### Change in fair value of shares in portfolio companies

The Company recognizes its holdings in subsidiaries, joint ventures, associated companies and other long-term securities holdings at fair value through profit or loss. If the value of a holding in subsidiaries, joint ventures, associated companies or other long-term securities holdings is lower or higher than its acquisition cost on the closing date, the holding is valued at fair value.

### **Pensions**

In the Parent Company, company-owned endowment insurance is recognized as of the financial year 2017 as a contingent liability, see Note 18.

### Note 22

### Information on the Parent Company

Karolinska Development AB (publ), Corporate Identity Number 556707-5048, is a Swedish limited liability company with its registered office in Solna.

Subsequent notes relate to the Parent Company.

### Note 23

### **Revenue distribution**

Total revenue	2,464	5,360
Other revenue	2,464	2,027
Dividend	-	3,333
SEK 000	2017	2016

### Note 24

### Other external expenses

### **Auditor and consultant fees**

SEK 000	2017	2016 (restated)
EY		
Audit services	1,167	1,231
Audit related services	550	162
Tax consulting	234	365
Total	1,951	1,758
Deloitte		
Audit related services	-	201
Tax consulting	+	10
Total	0	211

Auditor fees refer to the auditor's remuneration for the statutory audit. The work includes the examination of the annual report and accounting records, the administration by the Board and the CEO, and fees for auditing advice in connection with the audit assignment. Audit related services primarily relate to quality assurance services other than the statutory audit.

### Note 25

### **Operating leases**

The Parent Company has chosen to finance premises and equipment through operating leases. Only operating leases have been signed. Expensed leasing payments and future contractual leasing payments are indicated below.

SEK 000	2017	2016
Expensed leasing payments during the period	1,086	1,656
Future leasing payments		
Within one year	713	912
Between one year and five years	2	456
Total future leasing payments	715	1,368

### Note 26

### **Employees and personnel costs**

See Note 5 for further information.

### Average number of employees

Full-time equivalent	2017	2017 Of whom Of whom		2016	Of whom	Of whom
ruii-tiirie equivalent	2017	women	men	2010	women	men
Parent Company	7	43%	57%	6	34%	66%
Total	7	43%	57%	6	34%	66%

### **Employee benefits**

Total	25,003	19,900
Pension costs	2,203	1,962
Social security costs	4,424	3,811
Salaries and remuneration	18,377	14,127
SEK 000	2017	2016

### Salaries and other remuneration distributed between Board members and other employees

	201	7	201	6
SEK 000	Board and CEO	Other employees	Board and CEO	Other employees
Salaries and remuneration	16,516	1,861	12,868	1,259
Pension costs	1,813	390	1,681	281
Total	18,329	2,251	14,549	1,540

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### Note 27

### Change in fair value of shares in portfolio companies

SEK 000	2017	2016 (restated)
Change in fair value of shares in subsidiaries	0	444
Change in fair value of shares in joint ventures and associated companies	183,073	-146,989
Change in fair value of other long-term securities holdings	68,999	1
Total	252,072	-146,544

### Note 28

### Change in fair value of other financial assets

SEK 000	2017	2016
Change in fair value of other financial assets	2,483	0
Total	2,483	0

### Note 29

### Interest income and similar income

Total	4,549	1,954
Exchange rate gains	-	43
Interest income	4,549	1,911
SEK 000	2017	2016

### Note 30

### Interest expenses and similar expenses

SEK 000	2017	2016 (restated)
Interest expenses	-1	-4
Accrued interest convertibles	-43,494	-45,233
Change in value of short-term investments	-243	-115
Exchange rate losses	-24	-27
Other financial expenses/income	-1,702	642
Total	-45,464	-44,737

### Note 31

### **Taxes**

SEK 000	%	2017	%	2016 (restated)
Profit/loss before tax		179,595		-216,832
Income tax expense calculated at applicable rate in the Parent Company	22.0%	-39,511	22,0%	47,703
Tax effect of				
Non-deductible expenses		-2,130		-297
Tax-exempt income		2,889		1,537
Issue costs		578		-
Fair value change, non-taxable/ non-deductible		56,002		-32,337
Increase in tax losses carried forward without corresponding capitalization of deferred tax		-17,829		-16,605
Recognized tax	0.0%	0	0.0%	0

### **Unrecognized deferred tax assets**

Deductible temporary differences and tax losses carried forward for which deferred tax assets have not been recognized through profit or loss or the balance sheet mainly refer to the deficits incurred in the Parent Company. Any future gains on the sale of business-related shares and participations in the portfolio companies are non-taxable profits. Deferred tax assets have not been recognized for these deficits as it is unlikely that Karolinska Development AB will be able to offset the amounts against future taxable profits, despite that there is no time limit on the tax losses carried forward. Unrecognized deferred tax assets for Karolinska Development as of 31 December 2017 amounted to SEK 143,549 thousand (SEK 125,720 thousand), and SEK 54,552 thousand (SEK 64,337 thousand) refers to the tax effect of deficits that are restricted by Group contributions and mergers.

### Note 32

### **Tangible non-current assets**

SEK 000	31 Dec 2017	31 Dec 2016
Accumulated acquisition cost		
At the beginning of the year	0	659
Investments during the year	-	-
Closing balance	0	659
Accumulated depreciation and impairments		
At the beginning of the year	0	-553
Depreciation for the year	0	-106
Sales and disposals		0
Closing balance	0	-659
Carrying amount	0	0

### Note 33

### Shares in subsidiaries

SEK 000	2017	2016
Accumulated book value		
At the beginning of the year	0	150
Sales during the year	-	-150
Closing balance, book value	0	0

No investments were made in subsidiaries in 2017 or 2016.

### Specification of holdings in subsidiaries

Namn	Total h	olding <sup>1</sup>	Book value Com	
SEK 000	31 Dec 2017	31 Dec 2016	31 Dec 2017	31 Dec 2016
KCIF Fund Management AB	37.50%	37.50%	0	0
KD Incentive AB	100.00%	100.00%	0	0
Total book value			0	0

### Note 34

### Shares in joint ventures and associated companies

SEK 000	2017	2016 (restated)
Accumulated book value		
At the beginning of the year	148,808	228,764
Investments during the year	91,729	35,634
Reclassifications from loans and accrued interest	-	21,472
Effect of change in accounting policy	-	9,927
Measurement at fair value through profit or loss	183,073	-146,989
Closing balance, book value	423,610	148,808

<sup>&</sup>lt;sup>1</sup> Including indirect ownership interest through portfolio company. Ownership interest corresponds to formal voting rights according to the participating interest. In addition, a shareholder agreement has been entered into in some cases giving Karolinska Development controlling interest.

### **Specification of holdings in joint ventures**

Name	Total holding	Fully diluted <sup>1</sup>	Total holding	Book value in P	arent Company
SEK 000	31 Dec 2017		31 Dec 2016	31 Dec 2017	31 Dec 2016 (restated)
Karolinska Development portfolio					_
Umecrine Cognition AB	58.40%	72.00%	59.18%	315,283	74,489
KDev Investments AB	87.75%²		87.54%	19,856	5,749
Aprea Therapeutics AB	19.54%	17.00%	30.98%	-	-
Asarina Pharma AB	2.48%	2.48%	2.75%	-	-
Biosergen AS	5.35%	5.35%	6.56%	-	-
Dilafor AB	35.25%	38.00%	39.39%	-	-
Modus Therapeutics Holding AB	72.61%	71.00%	73.67%	-	-
Modus Therapeutics AB	72.61%	71.00%	73.67%	-	-
Inhalation Sciences Sweden AB	-	-	20.62%	-	-
NovaSAID AB (in liquidation)	-	-	88.91%	-	-
Promimic AB	32.00%	34.00%	32.00%	-	<u>-</u>
Total book value				335,139	80,238

### Specification of holdings in associated companies

Name	Total holding	Fully diluted <sup>1</sup>	Total holding	Book value in P	arent Company
SEK 000	31 Dec 2017		31 Dec 2016	31 Dec 2017	31 Dec 2016 (restated)
Aprea AB	1.35%	1.00%	2.13%	6,868	6,868
Forendo Pharma Oy	15.53%	13.00%	18.42%	14,582	13,789
Lipidor AB	-	-	30.11%	-	7,176
OssDsign AB	27.40%	25.00%	28.28%	59,479	35,088
KCIF Co-Investment Fund KB	26.00%		26.00%	7,542	5,649
Aprea Therapeutics AB	1.49%	1.00%	2.36%	-	-
Asarina Pharma AB	0.19%	0.19%	0.21%	-	-
Forendo Pharma Oy	5.74%	5.00%	6.21%	-	-
OssDsign AB	5.47%	5.00%	5.77%	-	-
Total book value		<u> </u>		88,471	68,570

<sup>&</sup>lt;sup>1</sup> Ownership with full dilution according to current investment plans.

<sup>&</sup>lt;sup>2</sup> Karolinska Development owns 87.75% (87.54%) of KDev Investments, which in turn owns the shares in the portfolio companies.

### Investments in joint ventures and associated companies

SEK 000	2017	2016 (restated)
Aprea Therapeutics AB	-	6,868
KDev Investments AB	22,896	19,819
OssDsign AB	23,595	-
Umecrine Cognition AB	45,238	8,947
Total investments in joint ventures and associated companies	91,729	35,634

### Non-cash investments in joint ventures and associated companies

SEK 000	2017	2016 (restated)
Conversions of previously provided loans, accrued interest		
Aprea Therapeutics AB	-	6,868
OssDsign AB	692	-
Umecrine Cognition AB	3,855	1,779
Total non-cash investments	4,547	8,647

### Note 35

### Other long-term securities holdings

SEK 000	2017	2016
Accumulated book value		
At the beginning of the year	600	599
Acquisition during the year	140	-
Divestments	-45,566	-
Measurement at fair value	68,999	1
Closing balance, book value	24,173	600

### Specification of holdings in other long-term securities

Namn	Total h	olding	Book value Com	e in Parent pany
SEK 000	31 Dec 2017	31 Dec 2016	31 Dec 2017	31 Dec 2016 (restated)
BioArctic AB	0.74%	3.17%	14,083	600
Pharmanest AB	9.58%	-	10,090	-
Total book value			24,173	600

### Non-cash investments in other long-term securities holdings

SEK 000	2017	2016 (restated)
Measurement at fair value	68,999	1
Total non-cash investments	68,999	1

Note 36

Parent Company's holdings in subsidiaries, joint ventures and associated companies

Company	Registered office	Corporate Identity Number	Number of shares	Equity, SEK 000	Profit/loss, SEK 000
Karolinska Development				Profit/loss,	
Aprea Therapeutics AB	Stockholm	556631-2285	75.500	169,027	-126,215
Forendo Pharma Ltd	Åbo	FI 2520329-3	1,028	54,619	54,350
KD Incentive AB	Solna	556745-7675	100,000	149	-
KCIF Fund Management AB	Solna	556777-9219	37,500	221	-1
OssDsign AB	Uppsala	556841-7546	84,136	57,595	-40,425
Umecrine Cognition AB	Umeå	556698-3655	2,654,914	16,774	-24,290
KCIF Co-Investment Fund KB	Solna	969744-8810	26	24,544	-2,657
Aprea Therapeutics AB	Stockholm	556631-2285	83,661	169,027	-126,215
Asarina Pharma AB	Umeå	556698-0750	340,571	103,913	65,305
Forendo Pharma Ltd	Åbo	FI 2520329-3	380	54,619	54,350
OssDsign AB	Uppsala	556841-7546	16,791	57,595	-40,425
KDev Investments AB	Solna	556880-1608	1,425,603	285,167	-6,904
Aprea Therapeutics AB	Stockholm	556631-2285	1,096,292	169,027	-126,215
Asarina Pharma AB	Umeå	556698-0750	4,410,578	103,913	65,305
Biosergen AS	Trondheim	NO 687622075	4,506,669	5,077	-2,211
Dilafor AB	Stockholm	556642-1045	269,381	15,995	-20,195
Modus Therapeutics Holding AB	Stockholm	556851-9523	9,973,110	135,410	-1,848
Modus Therapeutics AB	Stockholm	556669-2199	100,000	384	-37,587
Promimic AB	Göteborg	556657-7754	220,389	18,479	-3,769

### Note 37

### Loans receivable from joint ventures and associated companies

SEK 000	31 Dec 2017	31 Dec 2016 (restated)
Loans receivable from portfolio companies		
At the beginning of the year	957	27,523
Loans provided	25,347	7,168
Conversions	-22,896	-6,000
Reclassification to investment in portfolio company	-	-27,777
Foreign exchange difference	28	43
Total	3,436	957

### Non-cash investments in loans receivable from joint venture and associated companies

SEK 000	31 Dec 2017	31 Dec 2016 (restated)
Loans provided (are included in investments in KDev Investments, Note 34)	22,896	-
Conversions	-22,896	-6,000
Foreign exchange difference	28	43
Total non-cash investments	28	-5,957

### Note 38

### Other financial assets

SEK 000	31 Dec 2017	31 Dec 2016 (restated)	
Other financial assets			
Receivable Rosetta Capital	25,118	29,206	
Royalties receivable	15,478	8,907	
Total	40,596	38,113	

### Note 39

### Other current receivables

SEK 000	31 Dec 2017	31 Dec 2016
Tax receivables	483	496
Other	48	164
Total	531	660

### Note 40

### Prepaid expenses and accrued income

SEK 000	31 Dec 2017	31 Dec 2016
Prepaid rental expenses	186	297
Accrued interest income	50	78
Insurance premiums	198	229
Other	232	202
Total	666	806

### Note 41

### **Proposed appropriation of profit**

The following earnings are available for appropriation by the Annual General Meeting:

SEK 000	31 Dec 2017
Retained loss	-1,883,869,836
Share premium reserve	1,970,751,616
Net profit for the year	179,594,624
Total	266,476,404

The Board of Directors proposes that profits brought forward be appropriated as follows:			
Share premium reserve 1,970,751			
Retained loss -1,704,27			
To be carried forward	266,476,404		

### Note 42

### Other current liabilities

SEK 000	31 Dec 2017	31 Dec 2016 (restated)
Accumulated acquisition cost		
Royalty liability	4,807	4,798
Closing balance	4,807	4,798

### Note 43

### Accrued expenses and prepaid income

SEK 000	31 Dec 2017	31 Dec 2016
Salaries and remuneration to personnel	5,079	1,823
Remuneration to Board of Directors	171	149
Auditor and consulting fees	585	582
Payroll tax and accrued pension costs	1,618	1,585
Social security contributions	1,895	861
Other	15	1,849
Total	9,363	6,849

### Note 44

### **Related parties**

### **Affiliates**

The Parent Company has a related party relationship with its subsidiaries, joint ventures, associated companies and the companies in the Karolinska Institutet Holding AB Group.

Karolinska Development has signed a deal flow agreement with KIAB and its parent company, KIHAB, one of Karolinska Development's largest shareholders, to ensure Karolinska Development's access to research projects through KIAB's flow of innovations from cutting-edge research at Karolinska Institutet and other academic institutions across the Nordic region. Furthermore, Karolinska Development has rendered services to portfolio companies on technical studies and administration. The prices of these services rendered are market based.

	2017			2016		
SEK 000	Sale of services	Interest income	Purchase of services	Sale of services	Interest income	Purchase of services
Associate relationship						_
Karolinska Institutet Holding Group		-	1,151		-	1,752
(of which rental cost)			(1,028)			(1,618)
Subsidiaries	415	0	21	452	0	0
Joint ventures and associated companies	2,067	4,549	0	1,378	1,903	0
Total	2,482	4,549	1,172	1,830	1,903	1,752

	31 Dec 2017		31 Dec	2016
SEK 000	Liability to associate	Receivable from associate	Liability to associate	Receivable from associate
Associate relationship				
Owner: Karolinska Institutet Holding Group	186	-	458	-
Subsidiaries	21	480	0	104
Joint ventures and associated companies	0	99,321	0	30,418
Total	208	99,802	458	30,522

### Note 45

### **Voluntary change in accounting policy in the Parent Company**

A voluntary change in accounting policy was made by the Parent Company in the second quarter of 2017 with respect to the policy for recognition of investments in portfolio companies (subsidiaries, associated companies, joint ventures and other long-term securities holdings) and other financial assets and liabilities. All investments in shares in portfolio companies are now recognized at fair value through profit or loss in both the Investment Entity's and the Parent Company's balance sheet (previously based on the lower of cost and fair value). Comparable figures have been restated, see below.

### Effect of change in valuation principle on the income statement for comparable figures for 2016 for the Parent Company

SEK 000	2016 Full-year (previously published)	Effect of change in principle	2016 Full-year (restated)	
Share dividend	3,333		3,333	
Other revenue	2,027		2,027	
Revenue	5,360	o	5,360	
Other external expenses	-15,415		-15,415	
Personnel costs	-17,344		-17,344	
Depreciation of tangible non-current assets	-106		-106	
Impairment losses on shares in subsidiaries, joint ventures, associated companies and other long-term securities holdings	-148,440	148,440	0	
Change in fair value of shares in portfolio companies		-146,544	-146,544	
Result from sale of shares in portfolio companies	444	-444	0	
Operating profit/loss	-175,501	1,452	-174,049	
Financial net	-43,425	642	-42,783	
NET PROFIT/LOSS FOR THE PERIOD	-218,926	2,094	-216,832	

### Effect of voluntary change in accounting policy on total comprehensive income for comparable figures for 2016 for Parent Company

KSEK	2016 Full-year (previously published)	Effect of change in principle	2016 Full-year (restated)
Net profit/loss for the period	-218,926	2,094	-216,832
Total comprehensive income/loss for the period	-218,926	2,094	-216,832

### Effect of voluntary change in accounting policy on the balance sheet for comparable figures for 2016 for the Parent Company

SEK 000	2016 Full-year (previously published)	Effect of change in principle	2016 Full-year (restated)	
Assets		'		
Non-current assets				
Machinery and equipment	0		0	
Financial assets				
Shares in subsidiaries	0		0	
Shares in joint ventures	42,449	37,789	80,238	
Shares in associated companies	64,561	4,009	68,570	
Other long-term securities holdings	600		600	
Loans receivable from joint ventures and associated companies	28,734	-27,777	957	
Other financial assets	33,010	5,103	38,113	
Total non-current assets	169,354	19,124	188,478	
Current assets				
Receivables from subsidiaries	229		229	
Other current receivables	660		660	
Prepaid expenses and accrued income	3,448	-2,642	806	
Short-term investments	237,545		237,545	
Cash and cash equivalents	10,602		10,602	
Total current assets	252,484	-2,642	249,842	
TOTAL ASSETS	421,838	16,482	438,320	
Equity and liabilities				
Equity				
Restricted equity	26,732		26,732	
Share capital				
Unrestricted equity				
Share premium	1,884,310		1,884,310	
Accumulated losses	-1,677,789	13,394	-1,664,395	
Net profit/loss for the year	-218,926	2,094	-216,832	
Total equity	14,327	15,488	29,815	
Long-term liabilities				
Convertible loan	394,438		394,438	
Pension obligations	3,804	994	4,798	
Total Long-term liabilities	398,242	994	399,236	
Current liabilities				
Accounts payable	1,461	-1	1,460	
Other current liabilities	959	1	960	
Accrued expenses and prepaid income	6,849		6,849	
Total current liabilities	9,269	0	9,269	
Total liabilities	407,511	994	408,505	
TOTAL EQUITY AND LIABILITIES	421,838	16,482	438,320	

## Effect of voluntary change in accounting policy on the statement of cash flows for comparable figures for 2016 for the Parent Company

SEK 000	Note	2016 Full-year (previously published)	Effect of change in principle 2016 F	ull-year (restated)
Operating activities			'	
Operating profit/loss		-175,501	1,452	-174,049
Adjustments for non-cash items				
Depreciation of tangible non-current assets	32	106		106
Result of change in fair value	27	148,440	-1,896	146,544
Result from sale of portfolio company		-		-
Other items		-1,371		-1,371
Realized change in value of short-term investments		-193		-193
Interest received/paid		-		
Cash flow from operating activities before changes in working capital and operating investments		-28,519	-444	-28,963
Cash flow from changes in working capital				
Increase (-)/Decrease (+) in operating receivables		7,851		7,851
Increase (+)/Decrease (-) in operating liabilities		-2,665		-2,665
Operating investments				
Acquisitions of subsidiaries		-		-
Acquisitions of shares in joint ventures and associated companies	34	-19,819	-7,168	-26,987
Sale of shares in joint ventures and associated companies		-	444	444
Sale of short-term investments		41,326		41,326
Loans paid to associated companies	37	-7,168	7,168	0
Cash flow from operating activities		-8,994		-8,994
Financing activities				
Share issue		7		7
Issue costs		<u> </u>		
Cash flow from financing activities		7		7
Cash flow for the year		-8,987		-8,987
Cash and cash equivalents at the beginning of the year		19,589		19,589
CASH AND CASH EQUIVALENTS AT THE END OF THE YEAR		10,602		10,602

### Signing of the annual financial statements

The Board of Directors and CEO hereby certify that the annual report has been prepared according to the Annual Accounts Act and RFR 2 and provides a true and fair view of the Company's financial position and results and that the administration report provides a true and fair overview of the Company's operations, financial position and results, and that it describes significant risks and uncertainties facing the Company. The Board of Directors and CEO hereby certify that the Investment Entity report has been prepared according to the International Financial Reporting Standards (IFRS), as adopted by the EU, and provides a true and fair overview of the Investment Entity's financial position and results, and that the administration report for the Investment Entity provides a true and fair overview of the Investment Entity's operations, financial position and results, and that it describes significant risks and uncertainties facing the Investment Entity.

The annual report and the Investment Entity report have been approved for presentation by the Board on 20 March 2018. The Investment Entity's and parent company's income statements and balance sheets will be presented for adoption by the Annual General Meeting of shareholders on 26 April 2018.

Solna, 20 March 2018

Hans Wigzell Chairman Tse Ping Board Member Vlad Artamonov Board Member

Anders Härfstrand Board Member Magnus Modée Persson Board Member Theresa Tse Board Member

Viktor Drvota CEO

Our Auditor's Report was presented on 20 March 2018

Ernst & Young AB

Björn Ohlsson Authorized Public Accountant

### **Auditor's report**

To the general meeting of the shareholders of Karolinska Development AB (publ), corporate identity number 556707-5048

### Report on the annual accounts for the parent company and the financial statements for the investment entity

### **Opinions**

We have audited the annual accounts for the parent company and the financial statements for the investment entity of Karolinska Development AB (publ) for the year 2017. The annual accounts for the parent company and the financial statements for the investment entity are included on pages 27-85 in this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2017 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The financial statement for the investment entity have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the investment entity as of 31 December 2017 and their financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. The statutory administration report is consistent with the other parts of the annual accounts and the financial statement.

We therefore recommend that the general meeting of shareholders adopts the income statement and balance sheet for the parent company and the investment entity. Our opinions in this report on the annual accounts for the parent company and the financial statement for the investment entity are consistent with the content of the additional report that has been submitted to the parent company's audit committee in accordance with the Audit Regulation (537/2014) Article 11.

### **Basis for Opinions**

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

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

### **Key Audit Matters**

Key audit matters of the audit are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and financial statements of the current period. These matters were addressed in the context of our audit of, and in forming our opinion thereon, the annual accounts and financial statements as a whole, but we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

### Valuation of shares in portfolio companies

### **Description**

Carrying value for shares in portfolio companies, amounted to SEK 448 million as per 31 December 2017, corresponding to 68% of the Company's total assets.

The valuation of shares in portfolio companies is based on the International Private Equity, Venture Capital Valuation Guidelines (IPEV) and IFRS 13 Fair Value Measurement. Based on the valuation criteria provided by these rules, an assessment is made of each portfolio company to determine a valuation method. This is also documented in the Company's internal valuation guidelines.

The valuation method takes into account whether the portfolio company has been valued recently due to refinancing or a similar transaction that includes an independent third party. If there is no valuation available based on a similar transaction, discounted cash flow models or revenue multiples may be used. The Company has classified its shares in portfolio companies to fair value level 3 as defined by IFRS 13, which means that fair value is based on models where significant indata is based on non-observable data. Other portfolio companies have been listed on the stock exchange during the year and is classified to fair value level 1.

The process of valuation of unlisted shares in portfolio companies requires management assessment and is more complex compared to valuation of listed shares. Changes in ownership strategy, the development of the portfolio companies and ownership shares have consequences for the method of valuing these shares and thus the carrying amount. As changes in these judgements affects the carrying amount, we have considered this as a particular important area in the audit.

### How our audit addressed this key audit matter

In our audit we have gained an understanding of the valuation process and the key controls in this process. We have verified the Company's ownership in the portfolio companies, reviewed internal models regarding calculation of fair value and tested that the methodology is in accordance with the International Private Equity, Venture Capital Valuation Guidelines (IPEV) and IFRS 13 Fair Value Measurement.

Refer to Note 1 on page 48 for description and specification of accounting principles regarding valuation of portfolio companies and Note 17 on page 65 for a detailed description of valuation of financial instrument at level 1 and 3.

### Other Information than the annual accounts for the parent company and the financial statement for the investment entity

This document also contains other information than the annual accounts and financial statement and is found on pages 1-26. The Board of Directors and the Managing Director are responsible for this other information.

Our opinion on the annual accounts for the parent company and the financial statement for the investment entity accounts does not cover this other information and we do not express any form of assurance conclusion regarding this other information.

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

If we, based on the work performed concerning this information, conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### Responsibilities of the Board of Directors and the Managing Director

The Board of Directors and the Managing Director are responsible for the preparation of the annual accounts for the parent company and the financial statement for the investment entity and that they give a fair presentation in accordance with the Annual Accounts Act and, concerning the financial statements, in accordance with IFRS as adopted by the EU. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of annual accounts for

the parent company and the financial statement for the investment entity and that are free from material misstatement, whether due to fraud or error.

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

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

### Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts for the parent company and the financial statement for the investment entity as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts for the parent company and the financial statement for the investment entity.

A further description of our responsibilities for the audit of the annual accounts for the parent company and the financial statement for the investment entity is located at Revisorsinspektionen's (the Swedish Inspectorate of Auditors) website at: http://www.revisorsinspektionen.se/rn/showdocument/documents/rev\_dok/revisors\_ansvar.pdf. This description forms part of our auditor's report.

### Report on other legal and regulatory requirements

### **Opinions**

In addition to our audit of the annual accounts for the parent company and the financial statement for the investment entity, we have also audited the administration of the Board of Directors and the Managing Director of Karolinska Development AB (publ) for the year 2017 and the proposed appropriations of the company's profit or loss.

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

### **Basis for opinions**

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the *Auditor's Responsibilities* section. We are independent of the parent company and the investment entity in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

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

### Responsibilities of the Board of Directors and the Managing Director

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

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

### Auditor's responsibility

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

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

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

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

A further description of our responsibilities for the audit of the administration is located at Revisorsinspektionen's (the Swedish Inspectorate of Auditors) website at: http://www.revisorsinspektionen.se/rn/showdocument/documents/rev\_dok/revisors\_ansvar.pdf. This description forms part of our auditor's report.

#### Stockholm March 20th 2018

Ernst & Young AB

### Björn Ohlsson

Authorized Public Accountant

### Introduction

This Corporate Governance Report has been prepared in accordance with the Swedish Code of Corporate Governance and the Swedish Annual Accounts Act.

### Corporate Governance at Karolinska Development

### **Application of the Swedish Code of Corporate Governance**

Karolinska Development complies with the Swedish Code of Corporate Governance (the Code). Before the appointment of the current Nomination Committee there was one deviation, since the board director Niclas Adler was also the chairman of the Nomination Committee. Niclas Adler is no longer a member of the Nomination Committee, and no longer a director of the board.

### Information on the Company's website

On its website, the Company has a special section for corporate governance issues under the section Corporate Governance (http://www.karolinskadevelopment.com/en/ir/corporate-governance/).

### **General meetings**

Under the Swedish Companies Act, the general meeting is the Company's highest decision-making body. The general meeting may resolve upon every issue for the Company, which is not specifically reserved for another company body's exclusive competence. At the annual general meeting, which shall be held within six months from the end of the financial year, share-holders exercise their voting rights on issues such as the adoption of income statements and balance sheets, appropriation of the Company's profits or losses, resolutions to release the members of the Board of Directors and the chief executive officer from liability for the preceding financial year, the appointment of members of the Board of Directors and auditor and remuneration for the Board of Directors and the auditor.

Besides the annual general meeting, extraordinary general meetings may be convened. In accordance with the articles of association, all general meetings shall be convened through announcements in the Swedish Official Gazette (Sw. Post-och Inrikes Tidningar) and by posting the notice to the meeting on the Company's website. An announcement shall simultaneously be placed in Svenska Dagladet with information that the meeting has been convened. Minutes from the general meetings are published on Karolinska Development's web page.

All shareholders who are directly registered in the share register kept by Euroclear five weekdays prior to the general meeting and who notify the Company of their intention to attend the general meeting at the latest by the date specified in the notice convening the meeting, shall be entitled to attend the general meeting and vote according to the number of shares they hold. Shareholders may attend general meetings in person or through a proxy, and may also be accompanied by up to two assistants.

### Composition of the Board and functions, etc.

The Board of Directors is the highest decision-making body after the general meeting. The Board of Directors' responsibility is regulated in the Swedish Companies Act, the Swedish Annual Accounts Act, the Company's articles of association, directions given by the general meeting and the procedure for the Board of Directors of the Company adopted by the Board of Directors. In addition thereto, the Board of Directors shall comply with the Swedish Corporate Governance Code and Nasdaq Stockholm's Rule Book for Issuers, as well as other Swedish and foreign laws and regulations, as applicable.

Pursuant to the Swedish Companies Act, the Board of Directors is responsible for the Company's organization and the administration of the Company's affairs. Furthermore, the Board of Directors shall continuously assess the Company's and the group's financial situation, as well as ensuring that the Company's organization is formed in a way that the accounting, management of funds and the Company's financial conditions are controlled in a secure manner.

The assignments of the Board of Directors include, inter alia, to set objectives and strategies, see to it that there are effective systems for follow-up and control of the Company's operations, and see to it that there is a satisfactory control of the Company's compliance with laws and other regulations applicable to the Company's operations. The assignments of the Board of Directors also include to make sure that required ethical guidelines are set for the Company's behavior and that the Company's disclosure of information is characterized by transparency and is correct, relevant and reliable. In addition, the assignments of the Board of Directors include appointing, evaluating and if necessary removing the chief executive officer.

Members of the Board of Directors (except for employee representatives) are appointed annually by the annual general meeting for the period until the end of the next annual general meeting.

According to the Articles of Association, the Board shall consist of not less than three and not more than nine directors. Deputies shall not be appointed. At the Annual General Meeting 2017, seven directors and no deputies were elected. Later during the year one director resigned, but was replaced by a director elected at an extraordinary general meeting. At the turn of the year 2017/2018 the chairman of the board resigned from his directorship. As of the date of this report the number of directors is six.

### Regulations regarding the appointment and dismissal of directors and amendments to the Articles of Association

The Articles of Association contain no special regulations regarding the appointment and dismissal of directors and no special regulations regarding amendments to the Articles of Association.

### Authorization to the Board to issue new shares or acquire its own shares

The Annual General Meeting on May 24, 2017 authorized the Board, for the period up until the next annual general meeting to adopt decisions, whether on one or several occasions without pre-emption rights for the shareholders to issue new shares of series B up to a maximum of ten percent of the share capital.

The Annual General Meeting also authorized the Board to decide on transfer of earlier acquired shares of series B amounting to 244,285, to cover social security fees in PSP 2014 and PSP 2015.

### Holdings of ten percent or more of the votes

There is one holding that represents more than one tenth of the voting rights for all shares in Karolinska Development, Karolinska Institutet Holding AB (the only holder of non-listed series A shares) with 22.04 percent of the votes (5.64 percent of the shares).

### The chief executive officer

The chief executive officer reports to the Board of Directors. The chief executive officer's responsibility is governed by the Swedish Companies Act, the Swedish Annual Accounts Act, the Company's articles of association, directions given by the general meeting, the instruction for the chief executive officer and other internal directions and guiding principles adopted by the Board of Directors. In addition thereto, the chief executive officer shall comply with the Swedish Corporate Governance Code and Nasdaq Stockholm's Rule Book for Issuers, as well as other Swedish and foreign laws and regulations, as applicable.

According to the Swedish Companies Act, the chief executive officer shall handle the day-to-day management pursuant to the Board of Directors' guidelines

and instructions. In addition, the chief executive officer shall take any measures necessary in order for the Company's accounts to be maintained pursuant to law and that the management of funds is conducted in an appropriate manner. The division of work between the Board of Directors and the chief executive officer is described in the instruction for the chief executive officer.

The chief executive officer shall administrate the operative management and execute the resolutions passed by the Board of Directors. The chief executive officer shall control and supervise that the matters to be dealt with by the Board of Directors according to applicable legislation, the articles of association and internal instructions are presented to the Board of Directors, and shall continuously keep the chairman of the Board of Directors informed about the performance of the Company's operations, its earnings and financial position, as well as any other event, circumstances or condition that cannot be assumed to be irrelevant to the Board of Directors or the shareholders.

### **Nomination Committee**

The nomination committee shall carry out its duties in accordance with the Swedish Corporate Governance Code. The nomination committee's main duties are to propose candidates for the positions as chairman of the Board of Directors and other members of the Board of Directors, as well as propose fees and other remuneration to each members of the Board of Directors. The nomination committee is also to make proposals on the election of and remuneration to the auditor.

The five largest owners (as set forth in the share register kept by Euroclear Sweden AB as of August 31, 2017) have a right each to appoint one member of the Nomination Committee for the Annual General Meeting 2018. The members of the Nomination Committee have elected the chairman among themselves. The Nomination Committee consists of Peter Lundkvist (Chairman) representing Tredje AP-fonden, Anders Floding representing KIHAB, Theresa Tse representing Sino Biopharmaceutical, Todd Plutsky representing Coastal Capital and Torgny Wännström representing Insamlingsstiftelsen för främjande och utveckling av medicinsk forskning vid Karolinska Institutet.

If a member of the Nomination Committee resigns or is prevented from pursuing his/her assignment, the shareholder that has appointed such member shall appoint a new member. In the event that the shareholding in the Company is materially changed, before the Nomination Committee has completed its assignment, the Nomination Committee may decide to change the composition of the Nomination Committee, as determined by the Nomination Committee (considering the principles applicable for the appointment of the Nomination Committee). No fees shall be paid to the members of the Nomination Committee. Out-of-pocket expenses shall be reimbursed by the Company.

### **Board of Directors**

### **Composition of the Board**

The Company's Board consists of six directors, Hans Wigzell (Chairman), Tse Ping (vice Chairman), Vlad Artamonov, Anders Härfstrand, Magnus Persson and Theresa Tse. None of the directors is employed by the company.

Previously during the year also the following persons were directors of the board: Bo Jesper Hansen, Khalid Islam, Henrijette Richter, Niclas Adler and Hans-Olov Olsson, the three first mentioned up to the annual general meeting 2017.

Information on remuneration to Board as determined by the Annual General Meeting, can be found in the annual report under the Note 5 "Employees and costs for employees".

#### **Elected directors**

Hans Wigzell. Chairman since 2018. Board member since 2006. Born 1938. Professor Emeritus of Immunology and MD. Other appointments Chairman of Rhenman & Partner Asset Management AB. Board member of Swedish Orphan Biovitrum AB, Valneva SA, Sarepta Therapeutics Inc. and RaySearch Laboratories AB. Member of The Royal Swedish Academy of Engineering Sciences and of the Royal Swedish Achademy of Sciences. Previous assignments include, among others, the President of Karolinska Institutet's Nobel Committee, and President of Karolinska Institutet and Director General of Smittskyddsinstitutet. Holdings in Karolinska Development 36,491 shares and SEK 39,992 convertible loan.

**Tse Ping.** Vice Chairman and Board member since 2015. Born 1952. Honorary Doctorate, Fil Dr hc. Other appointments Founder and Chairman of Sino Biopharmaceutical Limited, Vice Chairman of Charoen Pokphand Group (CP Group), where he has extensive experience of major merger and acquisition activity including Ping An Insurance, CITIC Group, China Mobile, ITOCHU Corporation, and Marko Group. Previous appointments include Member of the Ninth, Tenth, and Eleventh National Committee of the Chinese People's Political Consultative Conference. Holdings in Karolinska Development 4,853,141 shares and SEK 272,858,294 in convertible bonds (by related legal person).

Vlad Artamonov. Board member since 2012. Born 1978. MBA, B.Sc. Other appointments Board Member of Redbank Energy Ltd. and of Coastal Capital International Ltd., Managing Partner at Coastal Capital International Ltd. Previous appointments include Investment Analyst at Greenlight Capital Inc., position in the Global Merger & Acquisition Group at Merrill Lynch in New York. Holdings in Karolinska Development 3,470,541 shares (by related legal person).

Anders Härfstrand. Board member since 2017. Born 1956. MD, PhD. Other assignments Chairman of Härfstrand Consulting, Board member Prothena Plc, Senior Commercial Advisor HBM Partners, Earlier assignments; Chief Executive Officer of BBB Therapeutics BV, President and Chief Executive Officer Europe of Makhteshim Agan Industries Ltd; President and Chief Executive Officer of Humabs BioMed SA; Chief Executive Officer of Nitec Pharma AG, Various executive and management roles at Serono, Pfizer and Pharmacia. Independent of the company, its executive management and in relation to the company's major shareholders. No holdings in Karolinska Development.

Magnus Persson. Board member since 2017. Born 1960. MD PhD Assoc Prof. Educated at Karolinska Institutet. Previous assignments CEO Karolinska Institutet Holding AB, Managing Partner The Column Group, Partner HealthCap, Clinical Research Physician Sanofi. Current board assignments include Galecto Biotech AS (Chairman), SLS Invest AB (Chairman) Health Innovation Platform AB (Chairman), Cantargia AB (Chairman), Inititator Pharma (Chairman), Albumedix AS, Immunicum AB and Medical Prognosis Institute AS. No holdings in Karolinska Development.

Theresa Tse. Board Member since 2017. Born 1992. Bachelor Degree of Science in Economics from the Wharton School of University of Pennsylvania. Other appointments Executive Director, the Chairlady of the Board and the Chairlady of the Executive Board Committee and the Nomination Committee, respectively, of Sino Biopharmaceutical Ltd (listed in Hong Kong). Holdings in Karolinska Development 4,853,141 shares and SEK 272,858,294 in convertible bonds (by related legal person).

### Independence requirements

The table below shows which elected directors are considered independent in relation to the Company and its management as well as in relation to the Company's major shareholders, as definitions in the Code.

Name	Function	Elected	Independent of:	
			company/ mgmt.	major holders
Hans Wigzell	Chairman	2006	yes	yes
Tse Ping	Director	2015	yes	yes
Vlad Artamonov	Director	2012	yes	yes
Anders Härfstrand	Director	2017	yes	yes
Magnus Persson	Director	2017	yes	yes
Theresa Tse	Director	2017	yes	yes

A major holder means a holder controlling, directly or indirectly, at least ten per cent of the shares or votes.

The Company meets the Code requirement that a majority of the elected directors must be independent in relation to the Company and its management, and that a minimum of two of these must be independent in relation to major shareholders.

### The Board's work etc.

According to the *Rules of procedure*, the Board shall normally meet six times per year. During 2017 the Board held 20 meetings, of which four meetings were per capsulam decisions. At the remaining board meetings, up to the 2017 EGM Bo Jesper Hansen attended eight meetings, Henrijette Richter five, Carl Johan Sundberg eight and Khalid Islam seven. During the year Hans Wigzell attended 13 meetings, Niclas Adler eleven, Tse Ping two and hans Olov Olsson one meeting. Theresa Tse, who was elected in November, did not attend any meeting.

The General Counsel of the company, Ulf Richenberg is the secretary at the board meetings.

The Board annually adopts rules of procedure, an instruction on the delegation of work between the Board and the CEO, and an instruction on financial reporting to the Board. The Board also adopts policies, which constitute a foundation for the Company's internal control systems. These are the Information and Insider Policy, IT Security Policy, Gender Equality Policy, Environmental Policy, HR Policy, Ethics Policy, Investment Policy and Dividend Policy.

The board evaluation of the board work has been conducted through a questionnaire distributed to all directors. The aggregated result of the questionnaire has been distributed to the directors and been subject to internal discussion. The full result of the evaluation has been submitted to the Nomination Committee.

The board has three committees, an Audit Committee, a Remuneration, and an Investment Committee.

### **Audit Committee**

Karolinska Development's Audit Committee consists of three members: Hans Wigzell (Chairman), Magnus Persson and Vlad Artamonov, each being independent in relation to the Company's major shareholders and in relation to the Company and its management.

The audit committee shall, without any other impact on the tasks and responsibilities of the Board of Directors:

- monitor the Company's financial reporting;
- in respect of the financial reporting, monitor the effectiveness of the Company's internal control, internal audit, and risk management;
- remain informed regarding the auditing of the group reporting and financial statements;
- inform the board about the result of the audit and about how the audit contributed to the accuracy of the financial reporting and about the function of the Audit Committee
- review and monitor the impartiality and independence of the auditor, and in that respect, pay particular attention to non-audit services provided by the auditor; and
- assist in the preparation of proposals to the annual general meeting's resolution regarding election of auditor.

The Audit Committee met six times during 2017. Previous members Bo Jesper Hansen, Henrijette Richter and Niclas Adler have been present at three, two and five meetings respectively. Hans Wigzell attended five meetings, and Magnus Person, who joined the committee after the AGM, attended two meetings.

### Remuneration Committee

Karolinska Development's Remuneration Committee consists of three members: Hans Wigzell, (Chairman), Anders Härfstrand and Vlad Artamonov, each being independent in relation to the Company and its management.

The remunerations committee's main tasks are to:

- prepare the Board of Directors' decisions on issues concerning principles for salary, remuneration and other terms of employment for the executive management;
- monitor and evaluate programs for variable remuneration for the executive management, both ongoing and those terminated during the year; and
- monitor and evaluate the application of the guidelines for remuneration to the management that the annual general meeting is legally obliged to decide on, as well as the current remuneration structures and levels in the Company.

The Remuneration Committee met twice during 2017, at which all members (current and previous respectively) were present.

### Investment Committee

Karolinska Development's Investment Committee consists of three members: Hans Wigzell (chairman), Magnus Person and Anders Härfstrand.

The main tasks of the Investment Committee are to prepare and analyze investment proposals and submit recommendations to the Board of Directors.

The Investment Committee met four times during 2017. Former directors Bo jesper Hansen, Henrijette Richter and Khalid Islam participated in the one meeting held before the AGM. Magnus Persson and Anders Härfstrand participated in the three meetings held after the AGM, and Niclas Adler participated in two of them.

### **Chief Executive Officer**

Viktor Drvota. Appointed as CEO on June 1, 2017 succeeding Jim Van heusden, and previously CIO since 2016. Born 1965 M.D, Ph.D. Associate Prof. In Cardiology. Viktor Drvota has over 13 years of Venture Capital experience with several investements, significant fundraisings, IPOs and exits. He was responsible for Life science at SEB Venture Capital 2002 -2016. During his appointment at SEB VC he also served as a Board member in several biotech and Medtech companies such as Arexis AB, SBL Vaccin AB, Nuevolution AS, Index Pharma AB, Scibase AB, Airsonett AB among others. Before joining SEB in, Dr Drvota worked as Senior Consultant and Associate Professor in Cardiology at the Karolinska Institutet/hospital, Stockholm. Dr Drvota has experience from preclinical as well as clinical research in drug development and medical devices. Dr Drvota has 29 published research articles. Holdings in Karolinska Development: 24 000 shares, 1 608 418 warrants.

# The main components of the Company's system for internal control and risk management in relation to financial reporting

## Internal control and risk management at Karolinska Development

Internal control is designed to provide reasonable assurance as to the reliability of external financial reporting and compliance with the law, generally accepted accounting principles and rules for listed companies.

The key elements of the Company's system for internal control and risk management related to financial reporting are presented below. The Company's internal control comprises mainly the areas of Control Environment, Risk Assessment, Control Activities, Communications and Monitoring.

Control environment. The control environment constitutes the basis for the internal control. Karolinska Development has a flat organizational structure with a clear division of responsibilities and rights. There is an established system of governing documents in the form of *Policies* adopted by the board and *Instructions* adopted by the CEO. Within the framework of overarching policies, they govern decisions, authorization and processes involving purchases, payments and investments. Among these documents, the *Valuation Guidelines*, governing methods and processes for valuation of the portfolio, should be mentioned. The documentation is centrally accessible to all employees through the Company's internal IT network. The Company has employed personnel responsible for controlling and legal functions, who jointly work towards a well-functioning control environment as one of their specifically stated goals. These governing documents form the basis for how transactions should be handled, recorded and reported.

Risk assessment. The Company works continuously with a structured risk assessment with regard to issues which have an impact on the Company's financial position and result. Special attention is paid to the risk of irregularities and favoritism at the Company's expense. Risk assessment includes inter alia: (i) the existence, at a given date, of an asset or liability, (ii) that a business transaction or an event has occurred during the period and relates to the Company, (iii) that there are no assets, liabilities or business transactions which are not recorded or items for which the necessary information is missing, (iv) that each asset and liability is recorded and valued in accordance with law, generally accepted accounting principles and internal valuation rules; (v) that the business transactions are recorded at the correct amount and that profit and expenses are attributable to the correct period, (vi) that an asset or liability relates to the Company on a specified date and, (vii) that an item is classified and described in accordance with law, generally accepted accounting principles and listing rules.

**Control activities.** The financial reporting is subject to control activities aimed at preventing, detecting and correcting errors and discrepancies. These consist of a specified allocation of work, documented and clearly described rules for how business transactions are to be approved as well as their traceability, the application of accounting and valuation principles, analytical monitoring, account reconciliation, monitoring of agreements, board resolutions, policies and certification procedures.

As relates to the portfolio, regular follow-ups are made of planned and implemented investments in terms of whether the companies have met the stipulated targets for further investments. Furthermore, evaluations are made and priorities set among the companies' projects. Scientific results and business opportunities are both monitored. This is done continuously both in regular meetings in the R&D Team an in regular management meetings.

There is also a monthly analysis of how different activities in portfolio companies affect the valuation of these in the parent company and the consolidated financial statements. Valuation effects are reported to and finally approved by the CFO and the CEO.

**Communications.** The internal financial reporting complies with stipulated reporting plans. The Company's rules of procedure and the instruction on reporting to the Board include detailed descriptions as to when and what should be reported to and handled by the Board. The Company's CFO, with the support of controllers, is responsible for the financial reporting to the Board, which includes information on the Company's results and financial position. Reporting plans are aimed at ensuring complete, accurate and timely information to the Company's management and the Board.

The Company has quite few employees, all active at the same workplace. Aside from the above-mentioned Management Meetings, regular information meetings are held, which enables quick and accurate internal communication and information.

**Monitoring.** Internal rules on internal control and risk management are updated at least annually and when necessary. Assessment of compliance is performed on a detailed level. The Audit Committee meets prior to Board meetings where interim reports are to be discussed. The auditors are present at the meetings of the Audit Committee and meet annually with the directors without anyone from management present.

### Specific assessment of the need for internal audit

Karolinska Development has no internal audit function. The Board is of the opinion that there is no need for an internal audit function at present. The reasons are that the Company has relatively few employees, its business is established in only one location, the majority of significant transactions are similar in character and relatively straightforward, and there is a clear internal accountability within the Company.

Solna, February 2018

Board of Directors of Karolinska Development AB

# Auditor's report on the corporate governance statement

To the general meeting of the shareholders of Karolinska Development AB (publ), org nr 556707-5048

### **Engagement and responsibility**

It is the Board of Directors who is responsible for the corporate governance statement for the year 2017 on pages 90-95 and that it has been prepared in accordance with the Annual Accounts Act.

### The scope of the audit

Our examination has been conducted in accordance with FAR's auditing standard RevU 16 *The auditor's examination of the corporate governance statement*. This means that our examination of the corporate governance statement is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

### **Opinions**

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

#### Stockholm March 20th 2018

Ernst & Young AB

### Björn Ohlsson

Authorized Public Accountant

### **Definitions and glossary**

### **Definitions of key terms**

per share

After-tax earnings Profit/loss after tax attributable to the Parent Company's shareholders divided by the weighted average number

of shares before and after dilution

Equity per share

Equity divided by the number of shares outstanding

at year-end

**Net Portfolio Fair Value** 

The net aggregated proceeds (after potential distribution to Rosetta Capital) that Karolinska Development will receive after KDev Investments' distribution of proceed to Rosetta Capital (calculated as Total Portfolio Fair Value minus Potential Distribution to Rosetta Capital).

### Alternative performance measures

The Company presents certain financial measures in the annual report that are not defined under IFRS. The Company believes that these measures provide useful supplemental information to investors and the company's management as they allow for the evaluation of the company's performance. Because not all companies calculate the financial measures in the same way, these are not always comparable to measures used by other companies. Therefore, these financial measures should not be considered as substitutes for measures as defined under IFRS.

**Portfolio** companies Companies operating in life science and are wholly or partially owned by Karolinska Development.

**Total Portfolio** Fair Value

The aggregated proceeds that would be received by Karolinska Development and KDev Investments if the shares in their portfolio companies were sold in an orderly transaction to market participants at the year-end.

Capital employed Total equity and interest-bearing liabilities

**Equity to total** assets ratio

Equity divided by total assets

Net asset value per share

Net Portfolio Fair Value of the total portfolio (SEK 447.8 million), loans receivable from portfolio companies (SEK 3.4 million), short-term investments (SEK 150.3 million), cash and cash equivalents (SEK 19.3 million), and financial

assets less interest-bearing liabilities (SEK 40.6 million minus SEK 384 million), in relation to the number of shares outstanding, excluded repurchased shares (64 116 921) on the closing date (31 December 2017).

Return on equity

Profit/loss after financial items divided by equity

employed

Return on capital Profit/loss after financial items divided by capital employed

### Other definitions

**Deal flow** agreement

Agreement between Karolinska Development and KIAB aiming to grant Karolinska Development access to research projects through KIABs evaluation of innovations from research Karolinska Institutet.

Fair value

The NASDAQ Stockholm regulations for issuers require companies listed on NASDAQ Stockholm to apply the International Financial Reporting Standards, IFRS, in their consolidated financial statements. The application of the standards allows groups of an investment company nature to apply so-called fair value in the calculation of the carrying amount of certain assets. These calculations are made on the basis of established principles and are not included in the opening accounts of the Group's legal entity, nor do they affect cash flows.

Karolinska Development applies the accounting principles of fair value according to the International Private Equity and Venture Capital Valuation Guidelines and adheres to the guidance of IFRS 13 Fair Value Measurement. Based on the valuation criteria provided by these rules, an assessment is made of each company to determine a valuation method. This takes into account whether the companies have recently been financed or involved with a transaction that includes an independent third party. If there is no valuation available based on a similar transaction, risk adjusted net present value (rNPV) calculations are made of the portfolio companies whose projects are suitable for this type of calculation. In other cases, Karolinska Development's total investment is used as the best estimation of fair value. In one other case, the valuation at the time of the last capital contribution is used

### **Definitions and glossary**

The part of the Fair Value that is related to the value of Karolinska Development's portfolio companies is named Portfolio Fair Value or Fair Value of the Portfolio. The calculation of the Portfolio Fair Value is based on IFRS 13 standards of deciding and reporting fair value and the International Private Equity and Venture Capital Valuation Guidelines (IPEV Valuation Guidelines) decided by the IPEV board that represent the current best practice, on the valuation of private equity investments.

The Portfolio Fair Value is divided into **Total Portfolio Fair Value** and **Net Portfolio Fair Value** (after potential distribution to Rosetta Capital).

### Karolinska Development

Karolinska Development AB (publ.), Corporate Identity Number 556707-5048

### Karolinska Institutet

Karolinska Institutet, Corporate Identity Number 202100-2973

Karolinska Institutet is one of the world's leading medical universities and awards the Nobel Prize in Physiology or Medicine.

#### KIAB

Karolinska Institutet Innovations AB, Corporate Identity Number 556528-3909

KIAB, which is owned (indirectly via KIHAB) by Karolinska Institutet, identifies projects with high commercial potential at an early stage by actively seeking new ideas from Karolinska Institutet and other Nordic universities. KIAB leads and also finances the project development in early phases, where the objective is to establish a licensing agreement or a start-up company.

#### **KIHAB**

Karolinska Institutet Holding AB, Corporate Identity Number 556525-6053

KIHAB is owned by Karolinska Institutet. KIHAB is the Parent Company of a group of five wholly owned subsidiaries, including Karolinska Institutet Innovations AB (KIAB).

### **Glossary**

**Amino acids** 

Amino acids are the chemical building blocks that can be combined in chains, or sequences, to form proteins and peptides.

**Antibodies** 

Proteins that are a part of the immune response system. Antibodies bind foreign agents (e.g. pathogens), which allows them to be identified and attacked by the body's

immune system.

Chemotherapy

See Cytotoxics.

Cytotoxics

Pharmaceuticals that target fast growing cells, for example cancer cells. These compounds usually work by halting the cell division process. The treatment with cytotoxics is

referred to as chemotherapy.

**Endogenous** 

Cells or substances that originates from the own body

or the own species.

In vivo

From Latin, literally 'inside of the living'. Refers to studies

conducted on living organisms.

Pathogen

Infectious agent that causes disease.

Programmed cell death

A suicide mechanism a cell may go through if it is

somehow damaged.

**Protein** 

Large molecules built from sequences of amino acids. Proteins are used in many different ways in an organism; they provide structure for cells and tissues, they catalyze chemical reactions in the form of enzymes and they are involved in the signalling in and between cells.

Randomized

A study in which the trial participants are randomly allocated into two or more treatment groups that are

prescribed a specific treatment or placebo.

Receptor

(study)

A large molecule, usually a protein, which is attached to cell membranes and binds to a target molecule. The target molecule can be a hormone that has a certain effect on

the cell to which it binds to.

**Steroids** 

Type of organic molecules that among other things include

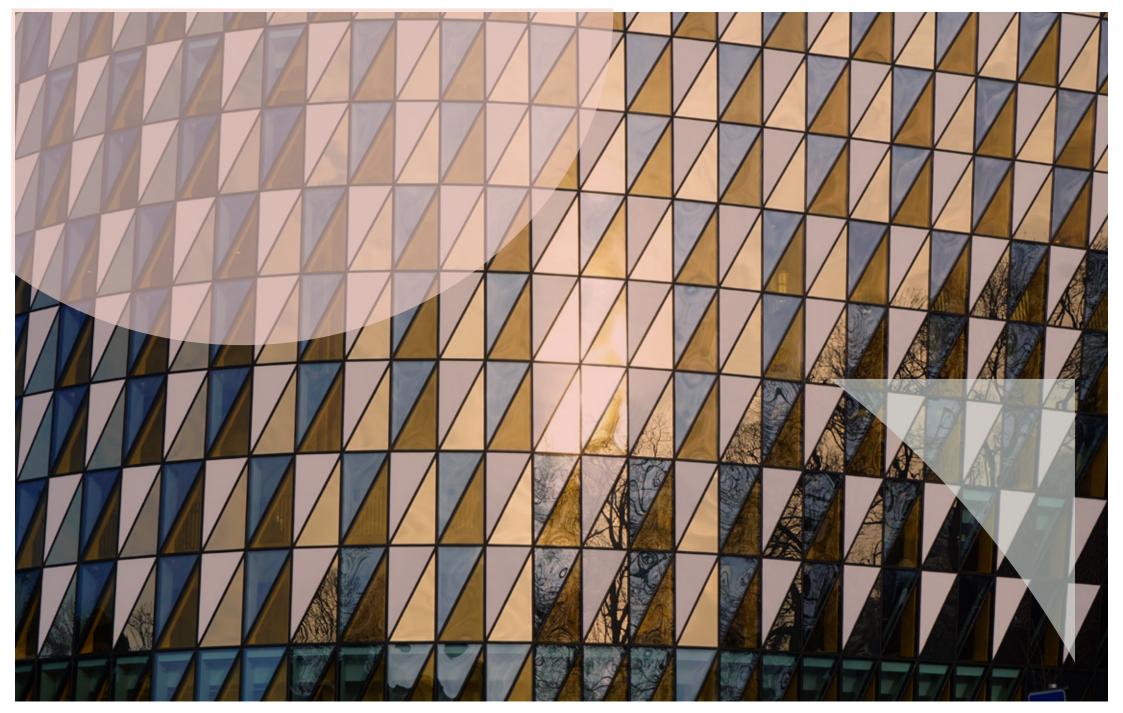
natural hormones.

## Dates for publication of financial information

Interim ReportJanuary – March 201825 April 2018Interim ReportJanuary – June 201816 August 2018Interim ReportJanuary – September 201831 October 2018

**Year-end Report** January – December 2018 February 2019

Annual Report 2018 March 2019







### Karolinska Development

Tomtebodavägen 23A SE-171 65 Solna Sweden