

---

## Karolinska Development

---

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 sciences companies with high commercial potential, eight of which have projects in the clinical development or early commercial phase. Clinical phase II results are expected for presentation by five of the portfolio companies' in 2018 and first half of 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 1.8 and 7.7 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.

For further information, see [www.karolinskadevelopment.com](http://www.karolinskadevelopment.com)

---

## Financial Update

---

### Third quarter

- The net profit/loss for the third quarter was SEK 4.1 million (SEK 194.1 million in the third quarter of 2017). Earnings per share totalled SEK 0.1 (SEK 3.0 in the third quarter of 2017).
- The result of the Change in fair value of shares in portfolio companies amounted to SEK 1.0 million.
- The total fair value of the portfolio was SEK 848.7 million at the end of September 2018, an increase of SEK 17.1 million from SEK 831.6 million at the end of the previous quarter. The net portfolio fair value was at the same time SEK 539.1 million, an increase of SEK 14.4 million from SEK 524.7 at the end of the previous quarter.
- Net sales totalled SEK 0.7 million during the third quarter of 2018 (SEK 0.5 million during the third quarter of 2017).
- Karolinska Development invested a total of SEK 13.5 million in portfolio companies during the third quarter. Third quarter investments in the portfolio companies by Karolinska Development and other specialised life sciences investors totalled SEK 78.8 million.
- Cash and cash equivalents decreased by SEK 8.5 million during the third quarter, totalling SEK 88.0 million on 30 September 2018.

---

## Significant events during the third quarter

---

- HealthCap invested SEK 60 million in Modus Therapeutics, making it one of the company's biggest shareholders. The investment coincided with the conversion of convertible notes held by current shareholders. The new investment, together with the conversion, totalled just over SEK 140 million

and the transaction resulted in the book value of Karolinska Development's holding in Modus Therapeutics increasing as early as the second quarter of 2018 (July 2018).

- Forendo Pharma initiated a clinical phase I trial of its candidate drug, FOR-6219, for the treatment of endometriosis. The data are expected at the end of 2018 (July 2018).
- The venture capital company, Vesalius Biocapital III Partners, which specialises in investing in later stage European life science companies, invested EUR 4 million in the portfolio company, Forendo Pharma. Stéphane Verdood, Managing Partner from Vesalius, joined Forendo Pharma's Board of Directors (September 2018).
- Asarina Pharma conducted an oversubscribed new share issue and was successfully listed on the NASDAQ First North exchange in Stockholm. Karolinska Development's holding in the company totals 1.2% (September 2018).

---

## Significant post-period events

---

- OssDsign announced that its latest product Cranioplug has received 510(k) clearance by the FDA, which allows marketing and sales of the product in US. The implant is the first product of its kind in the US market (October 2018).
- In October 2018 it was announced that Dilafor's phase 2b study of the candidate drug, tafoxiparin, failed to achieve its primary goals. Tafoxiparin was well tolerated amongst both women and children, but no statistically significant efficacy was observed in any of the dose levels studied. Karolinska Development will revalue Dilafor's book value, which is expected to negatively impact the result by approx. SEK 40 million for the fourth quarter of 2018 (October 2018).
- Modus Therapeutics announced that the U.S Food & Drug Administration (FDA) has approved the company's Investigational New Drug (IND) application to initiate a Phase I clinical trial with subcutaneous sevuparin for the treatment of sickle cell disease (November 2018).

### **Viktor Drvota, CEO of Karolinska Development, comments:**

"We are in an intensive phase of Karolinska Development's development, where a number of portfolio companies are expected to communicate results from important clinical trials in a relatively short period of time. First off the mark was Dilafor, and the results were unfortunately not those for which we had hoped. Phase 2 results from Modus Therapeutics, Aprea Therapeutics and Umecrine Cognition are now in the pipeline and all three of these companies expect to present their results over the next nine months. We also note that Karolinska Development in the third quarter once again was able to return a positive financial result."

### **Contact information**

For further information, please contact:

**Viktor Drvota**, Chief Executive Officer  
+46 73 982 52 02  
[viktor.drkota@karolinskadevelopment.com](mailto:viktor.drkota@karolinskadevelopment.com)

**Fredrik Järrsten**, Chief Financial Officer  
+46 70 496 46 28  
[fredrik.jarsten@karolinskadevelopment.com](mailto:fredrik.jarsten@karolinskadevelopment.com)

---

## Chief Executive's Report

---

### Promising outlook with impending study results from several portfolio companies

We are in an intensive phase of Karolinska Development's development in which a number of portfolio companies are expected to communicate results from important clinical trials within a relatively short period of time. First off the mark was Dilafor, and the results were unfortunately not those for which we had hoped. Phase 2 results from five clinical trials from Modus Therapeutics, Aprea Therapeutics and Umecrine Cognition are now in the pipeline and all three of these companies expect to present their results over the next nine months.

The failure of studies to achieve their primary goals is a natural part of the research process. Statistically speaking, only about one in ten candidate drugs that enter into clinical research actually reaches the market, and this is obviously something that we have taken into account in our overall investment strategy. Our portfolio of companies is well-structured, and includes potentially ground-breaking medical treatments, and combines a business-minded approach with professional development of innovative life science projects in a way that maximises the potential for long-term success. Our current position can be summarised in the following three points:

- our portfolio companies have five projects for which we expect phase 2 data to be presented in the next nine months;
- based on available data, the probability of positive phase II data for the projects in question is between 27 and 50%, depending on the therapeutic indication area;
- a number of deals have been signed for comparable projects where the contract values for the individual projects have ranged from SEK 1.8 to SEK 7.7 billion.

### Interesting investments in the portfolio companies

We have noted substantial interest in our portfolio companies during the summer and autumn, resulting in HealthCap's investment in Modus Therapeutics and Vesalius Biocapital III Partners' investment in Forendo Pharma. These types of investment are examples of value-boosting activities and they also provide confirmation that our work with the portfolio companies is contributing to their success.

Several of our holdings have been listed on the stock market recently, enabling us to realise a good return on some of our investments. The last quarter saw Asarina Pharma successfully listed on the NASDAQ First North exchange in Stockholm. A new share issue in conjunction with the listing was oversubscribed by 175%. Karolinska Development's holding in the company after the share issue totals 1.2%.

### Forendo Pharma enters clinical trials

The first clinical trial of Forendo Pharma's FOR-6219 candidate drug began when the trial was given the go-ahead by the British pharmaceutical regulatory authority, the Medicines and Healthcare products Regulatory Agency (MHRA). The phase Ia study is designed to investigate safety, tolerability and pharmacokinetics and presentation of the first results is expected towards the end of 2018.

### Results from five phase 2 studies expected in the coming 9 months

Our portfolio companies, including Aprea Therapeutics, Modus Therapeutics and Umecrine Cognition, are scheduled to present the results of five important phase II studies in the next nine months.

**Aprea Therapeutics'** candidate drug, APR-246, has demonstrated initial positive results in a combination study with the standard treatment, azacitidine, in patients with the type of leukaemia known as TP53 mutant myelodysplastic syndromes and acute myeloid leukaemia (MDS and AML). 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. The median survival period for MDS patients with mutated p53 is only just over 7 months.

The phase IIa study of patients with platinum-sensitive high grade serous ovarian cancer is also continuing according to plan and the results are scheduled for presentation in 2019.

Karolinska Development owns 1.5% of the company directly and a further 16% through KDev Investments. A licensing deal for a similar pharmaceutical project was signed some years ago with a contract value of over SEK 4 billion. The average probability of positive phase II data for projects in these therapeutic indication areas is 27-33%.

**Umechrine Cognition** is conducting two phase II studies of the GR3027 candidate drug. The first of these studies involves patients with a serious form of sleep disorder, with the data from this trial expected at the end of 2018. The other phase II study involves patients with hepatic encephalopathy, neuropsychiatric symptoms associated with liver failure, and the results are expected in 2019. As far as Karolinska Development is aware, no other company has similar treatments in the clinical phase of development.

Karolinska Development owns 68% of Umechrine Cognition. Two licensing deals involving similar pharmaceutical projects were signed in recent years with contract values of over SEK 3 billion and SEK 1.8 billion, respectively. The average probability of positive phase II results for this type of project is 34%.

**Modus Therapeutics** is expected to present the results of a phase II study of the candidate drug, sevuparin, for the treatment of the heritable disease, sickle cell anaemia, in the first half of 2019. People with this disease are at risk of microvascular obstructions, known as Vaso-Occlusive Crises (VOCs), which cause oxygen deprivation and severe pain. There is currently no treatment available for the acute phases of the disease, other than analgesics. Sevuparin is classified as a potential orphan drug in the USA and EU, granting market exclusivity for seven and ten years, respectively.

Karolinska Development owns 52% of Modus through KDev Investments. Two partnership agreements for pharmaceutical projects in the same developmental phase for the treatment of sickle cell anaemia have been signed in recent years, with contract values of near SEK 6 billion and about SEK 3 billion, respectively. The average probability of positive phase II data for projects in this therapeutic indication area is 50%.

We are also looking forward, with real excitement, to additional study data that could potentially trigger substantial increases in value and will, at the same time, continue our evaluation of measures designed to further strengthen our financial position.

In conclusion, we can note that Karolinska Development in the third quarter as for the accumulated period January to September 2018 was able to return a positive financial result. We are now looking forward to further results from clinical studies that potentially can lead to substantial increases in value while we at the same time continue evaluating measures to strengthen our financial situation.

Solna 13 November, 2018

Viktor Drvota  
Chief Executive Officer

## Portfolio Companies

### A Focused Portfolio with High Commercial Potential

Karolinska Development's investments in therapeutic companies are 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 and 2019. 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 within the next 9 months.

The therapeutics companies' next key value-generating milestones are expected during 2018 and the first half of 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 Development 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 within 9 months

Therapeutics	Net Ownership*	Preliminary	Phase I	Phase II	Phase III	2 <sup>nd</sup> indication(s) ongoing/planned
	KD 1.5% ** KDev Invest 16%	Ovarian cancer		2019		Platinum-resistant ovarian cancer
		Myelodysplastic syndrome (MDS)		2018		
	KDev Invest 52%	Sickle cell disease		2019		At-home setting with subcutaneous injection, Malaria
	KDev Invest 38%	Labor arrest				
	KD 68%	Hepatic encephalopathy		2019		
		Idiopathic hypersomnia		2018		
	KD 12% **	Endometriosis		2018		
	KD 10% **	Pain during intrauterine device placement			2020	Passive investment
	KDev Invest 1%	Premenstrual dysphoric disorder		2019		Passive investment
	KDev Invest 4%	Systemic fungal infections		2019		Passive investment
Medicinsk teknik		Prototype	Development	PMA / 510k		Market
	KD 32% **	Patient-specific craniofacial implants				Expansion in the EU and the US 2018
	KDev Invest 30%	Medical implant coatings				Expansion in the EU and the US 2018

KD: Karolinska Development – KDev Invest: KDev Investments  
 \* Fully diluted ownership based on current investment plans  
 \*\* Includes indirect holdings through KCIF Co-Investment Fund

Current phase → Progress and expected results

### Earn-out agreements

				
Phase III	Phase II	Phase II	Preliminary	Phase III



**Project (First-in class)**  
APR-246

**Primary indications**  
Ovarian cancer  
MDS

**Development Phase**  
Phase IIa (Ovarian cancer)  
Phase Ib/IIa (MDS)

**Holding in company\***  
Karolinska Development  
1.5%\*\*  
KDev Investments 16%

**Other investors**  
Versant Ventures,  
5AM Ventures,  
HealthCap,  
Sectoral Asset  
Management,  
KCIF Co-Investment Fund KB

**Origin**  
Karolinska Institutet

**More information**  
 [aprea.com](http://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) 2016
- USD 483 million Calithera Biosciences (licensor) & Incyte (licensee) 2017

## Aprea Therapeutics AB



### Unique approach to treating a 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 established safety, tolerability and pharmacokinetics of APR-246 in combination with standard chemotherapy.

Aprea is also enrolling one Phase Ib/IIa study in myelodysplastic syndrome (MDS) and one Phase Ib study in platinum-resistant HGSOC. Initial positive results from the Phase Ib part of the ongoing Phase Ib/IIa study in MDS have been presented at key congresses. The study evaluated the safety and efficacy of APR-246 in combination with standard chemotherapy (azacitidine) for the treatment of TP53 mutated MDS and acute myeloid leukemia (AML). Initial data of 9 evaluable patients show that there was a 100% overall response rate (ORR), with 8 of 9 patients achieving a complete remission. In comparison, the ORR in corresponding patient group receiving standard of care is 30-50%. The combination of APR-246 and azacitidine was also well tolerated. APR-246 is now undergoing the Phase IIa part of the combined Phase Ib/IIa MDS study.

#### The market

APR-246 has the potential to be used in many cancers as mutations in p53 are found in around 50% of all diagnosed cancers. The lead target indications thus far include ovarian cancer and blood tumors as MDS and AML. Ovarian cancer is the 7th most common cancer in women, with over 60,000 new patients diagnosed worldwide each year. HGSOC accounts for 70-80% of all deaths from ovarian cancer. MDS is an orphan disease and represents a spectrum of hematopoietic stem cell malignancies. Approximately 30-40% of MDS patients progress to AML and mutations in p53 are found in up to 20% of MDS and AML patients, which is associated with poor overall prognosis.

#### Recent progress

- Initial positive results from the ongoing Phase Ib/II study in MDS presented at the 2018 American Association of Cancer Research (AACR) Annual Meeting in Chicago (April 2018) and at the 2018 European Hematology Association (EHA) Annual Meeting in Stockholm (June 2018).

#### Expected milestones

- Results of Phase IIa part of PiSARRO study expected in 2019.
- Results from Phase IIa component of combined Phase Ib/IIa study in MDS expected in 2018.




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

Sevuparin

**Primary indication**

Sickle cell disease (SCD)

**Development Phase**

Phase II

**Holding in company\***


KDev Investments 52%

**Other investors**

The Foundation for Baltic and  
East European Studies,  
Praktikerinvest,  
HealthCap

**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) 2016
- USD 340 million GlycoMimetics (licensor) & Pfizer (licensee) 2011

## 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, Jamaica 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.

#### 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.

#### Recent progress

- Dr. John Öhd appointed Chief Medical Officer (March 2018).
- Sevuparin granted Rare Pediatric Disease Designation by the FDA for the treatment of children with SCD (April 2018).
- SEK 140 million raised in a financing led by new investor HealthCap, which will invest SEK 60 million (July 2018).
- FDA approved IND application to initiate a Phase I clinical trial with subcutaneous sevuparin for the treatment of SCD (November 2018).

#### Expected milestones

- Complete recruitment into Phase II proof-of-concept trial in 2018.
- Results from Phase II trial expected in 2019.




**Project (First-in-class)  
GR3027**
**Primary indications**

Hepatic encephalopathy  
Idiopathic hypersomnia

**Development Phase**

Phase IIa

**Holding in company\***

Karolinska Development 68%


**Other investors**

Norrlandsfonden,  
Fort Knox Förvaring AB,  
PartnerInvest

**Origin**

Umeå University

**More information**

 [umecrincognition.com](http://umecrincognition.com)

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

**Deal values for similar  
projects**

- USD 397 million Aerial Biopharma (licensor) & Jazz Pharmaceuticals (licensee) 2014
- USD 201 million Vernalis (licensor) & Corvus Pharmaceuticals (licensee) 2015

## Umechrine Cognition AB



### Unique treatment approach for CNS-related disorders

Umechrine 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 Umechrine 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/IIa study in HE shows that GR3027 is well tolerated, does not cause any dose-limiting side effects and has a favorable pharmacokinetic profile. GR3027 has now advanced into the phase IIa part of the study, from which results are expected in 2019. A Phase IIa study in IH is also ongoing, with data readout expected in 2018.

#### 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.

#### Recent progress

- Positive Phase Ib data for GR3027 presented (September 2017).
- SEK 20 million raised from existing investors to fund a Phase IIa study in IH (October 2017).
- First patient included in clinical Phase IIa study in patients with IH (November 2017).

#### Expected milestones

- Results from the Phase IIa part of the combined Phase Ib/IIa study in HE expected in 2019.
- Results from Phase IIa study in IH expected in 2018.

**FORENDO**  
P H A R M A

**Project (First-in-class)**  
FOR-6219


**Primary indication**  
Endometriosis

**Development Phase**  
Phase Ia

**Holding in company\***  
Karolinska Development 12%\*\*

**Other investors**  
Novo Seeds,  
Novartis Venture Fund,  
Merck Ventures,  
Vesalius Biocapital,  
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

**Deal values for similar  
projects**

- USD 853 million Astellas  
(buyer) & Ogeda (seller)  
2017
- USD 595 million  
Neurocrine Biosciences  
(licensor) & AbbVie  
(licensee) 2010

## Forendo Pharma Ltd



### Novel therapies for women's health.

Forendo (Turku and Oulu, Finland) is developing a new treatment for eliminating endometriosis while at the same time maintaining normal hormonal cycles.

Endometriosis is an estrogen dependent disease that affects women in reproductive age and is caused by cells normally lining uterus being present outside of the uterine cavity, which induces chronic inflammation. The disease is manifested in many diverse ways and it often causes particularly painful menstruations or chronic pelvic pain. The existing drug therapies ameliorate the symptoms by suppressing estrogen synthesis, but due to systemic estrogen disturbances these therapies are also associated with harmful side effects that limit the use of them. The risk of osteoporosis is for example well known in association with estrogen elimination therapies.

Forendo's drug candidate FOR-6219 is an inhibitor of the HSD17B1 enzyme, a novel drug target for tissue specific regulation of hormone activity. Proof of efficacy for this novel mechanism has been demonstrated in preclinical models, in which the compound has been shown to locally block formation of estrogen in endometrial tissue, cause regression of endometriosis and relief of the associated inflammatory pain without impacting systemic estrogen levels. A Phase Ia trial has commenced, investigating the safety, tolerability, and pharmacokinetics of FOR-6219 in healthy, postmenopausal women. Results are expected at the end of 2018.

Forendo has also a second program, a dual HSD inhibitor for the treatment of broader gynecological conditions in preclinical discovery phase.

#### The market

It is estimated that 10% of all fertile women are affected by endometriosis. This corresponds to a total of 176 million women in the world. Endometriosis has a detrimental effect on the well-being of the women affected and the socio-economic burden of the disease from e.g. sick leaves is profound due to the lack of safe and effective treatment. Forendo's approach to treat endometriosis therefore has a high potential to substantially impact future treatment regimens.

#### Recent progress

- Initiated clinical development of FOR-6219 (July 2018).
- EUR 4 million raised from new investor Vesalius Biocapital III Partners (September 2018).

#### Expected milestones

- Results from Phase Ia study expected at end of 2018. .

## OSSDSIGN®

### Project

OSSDSIGN® Cranial and  
OSSDSIGN® Facial

### Primary indication

Cranial implants

### Development Phase

Marketed

### Holding in company\*

Karolinska Development 32%\*\*

### Other investors

SEB Venture Capital,  
Fouriertransform

### Origin

Karolinska University Hospital,  
Uppsala University

### More information



ossdsign.com

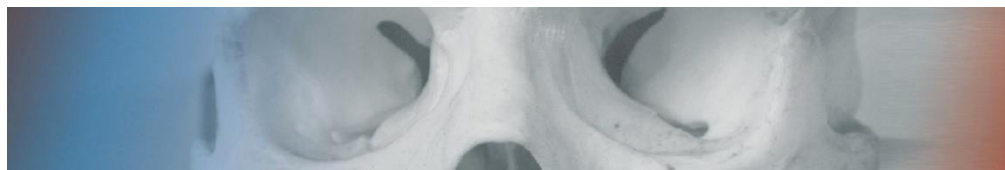
\* Fully-diluted ownership based on  
current investment plans

\*\* Includes indirect holdings through  
KCIF Co-Investment Fund

### Deal values for similar projects

- USD 330 million Baxter International (buyer) & ApaTech (seller) 2010
- USD 360 million Royal DSM (buyer) & Kensey Nash (seller) 2012

## OssDsign AB



## 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 is also undertaking regulatory and commercial activities in Japan.

The commercial strategy is focused on building sales of the innovative products through a combination of an internal sales organization and distribution partnerships. A US subsidiary has been established to strengthen the market presence.

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.

### 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.

### Recent progress

- Launch of OSSDSIGN® Cranial in the US (April 2017).
- US subsidiary established (January 2018)
- 510(k) clearance granted by US FDA to market OssDsign's latest product Cranioplug in the US (October 2018).

### Expected milestones

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



**Project**

HA<sup>nano</sup> Surface

**Primary indication**

Implant surface coatings

**Development Phase**

Marketed

**Holding in company\***

KDev Investments 30%


**Other investors**

ALMI Invest,  
K-Svets Ventures,  
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) 2008
- USD 120 million MAKO surgical (buyer) & Pipeline Biomedical (seller) 2013

## 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 HA<sup>nano</sup> Surface, which increases their integration into bone and anchoring strength.

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

#### The market

Promimic is focusing on the markets for dental and orthopedic implants, which collectively represents a worldwide market opportunity 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 HA<sup>nano</sup> Surface technology to leading implant manufacturers so that they can incorporate it into their products.

#### Recent progress

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

#### Expected milestones

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

## Financial Development

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

Amounts with brackets refer to the corresponding period previous year unless otherwise stated.

### Financial development in summary for the Investment Entity

SEKm	2018 Jul-Sep	2017 Jul-Sep	2018 Jan-Sep	2017 Jan-Sep	2017 Full-year
<b>Condensed income statement</b>					
Change in fair value of shares in portfolio companies	1.0	212.2	22.1	203.0	252.1
Net profit/loss	4.1	194.1	15.7	147.6	179.6
<b>Balance sheet information</b>					
Cash, cash equivalents and short-term investments	88.0	165.4	88.0	165.4	169.6
<b>Share information</b>					
Earnings per share, weighted average before dilution (SEK)	0.1	3.0	0.2	2.4	2.9
Earnings per share, weighted average after dilution (SEK)	0.1	3.0	0.2	2.4	2.9
Net asset value per share (SEK) (Note 1)	4.5	3.8	4.5	3.8	4.3
Equity per share (SEK) (Note 1)	4.4	3.7	4.4	3.7	4.2
Share price, last trading day in the reporting period (SEK)	8.1	5.6	8.1	5.6	5.8
<b>Portfolio information</b>					
Investments in portfolio companies	13.5	17.1	81.1	57.8	91.9
Of which investments not affecting cash flow	2.5	1.2	6.5	3.0	4.6
Portfolio companies at fair value through profit or loss	539.1	410.2	539.1	410.2	447.8

### Financial Development for the Investment Entity in 2018

#### *Investments (comparable numbers 2017)*

Investments in the portfolio in the third quarter 2018 by external investors and Karolinska Development amounted to SEK 92.3 (21.4) million, whereof 79% (21%) by external investors.

Karolinska Development invested SEK 13.5 (17.1) million, of which SEK 11.0 (15.9) million was cash investments. Investments were made in OssDesign SEK 8.0 million, Dilafor SEK 1.8 million and Promimic SEK 1.2 million. Non-cash investments (accrued interest on loans) amounted to 2.5 (1.2) million.

Investments by external investors in the portfolio companies amounted to SEK 78.8 (4.4) million. Investments were made in Forendo Pharma SEK 30.9 million, Modus Therapeutics SEK 30.0 million, OssDesign SEK 9.5 million, Biosergen SEK 5.2 million, Promimic SEK 2.8 million and Dilafor SEK 0.3 million. Further more Asarina Pharma conducted an oversubscribed new share issue and raised SEK 150 million when listed on the NASDAQ exchange in Stockholm.

During the year, Karolinska Development and external investors have made investments in the portfolio companies as follows:

<b>SEKm</b>	<b>Karolinska Development</b>	<b>External Investors</b>	<b>Total Invested Q1-Q3 2018</b>
Modus Therapeutics	33.6	41.0	74.6
Umecrine Cognition	15.9	3.9	19.8
Dilafor	13.1	29.9	43.0
Forendo Pharma	6.5	71.3	77.8
Promimic	2.3	5.7	8.0
OssDsign	9.6	9.5	19.1
Biosergen	0.0	5.2	5.2
<b>Total</b>	<b>81.1</b>	<b>166.5</b>	<b>247.6</b>

### **Portfolio Fair Value**

Fair Value of the portfolio companies owned directly by Karolinska Development increased by SEK 10.1 million during the third quarter 2018. Fair value increased as a result of the investments in the portfolio company OssDsign and accrued interest on loans to portfolio companies, but decreased due to exchange rate adjustments on the investment in Forendo Pharma.

Fair Value of the portfolio companies owned indirectly via KDev Investments increased by SEK 7.0 million during the third quarter 2018. The main reason for the increase was the increased value of Asarina Pharma when listed on Nasdaq First North. The investments in Dilafor and Promimic also positively affected Fair Value.

Total Fair Value from portfolio companies owned directly by Karolinska Development and indirectly via KDev Investments increased by SEK 17.1 million in the third quarter 2018.

As a consequence of the increase in Fair Value of the part of the portfolio owned via KDev Investments, the potential distribution to Rosetta Capital increased by SEK 2.7 million, resulting in Net Portfolio Fair Value increasing by SEK 14.4 million in the third quarter 2018.

<b>SEKm</b>	<b>30 Sep 2018</b>	<b>30 Jun 2018</b>	<b>Q3 2018 vs Q2 2018</b>
Karolinska Development Portfolio Fair Value (unlisted companies)	450.9	440.8	10.1
Karolinska Development Portfolio Fair Value (listed companies)	0.0	0.0	0.0
KDev Investments Portfolio Fair Value	397.8	390.8	7.0
<b>Total Portfolio Fair Value</b>	<b>848.7</b>	<b>831.6</b>	<b>17.1</b>
Potential distribution to Rosetta Capital of fair value of KDev Investments	309.6	306.9	2.7
<b>Net Portfolio Fair Value (after potential distribution to Rosetta Capital)</b>	<b>539.1</b>	<b>524.7</b>	<b>14.4</b>

Total Portfolio Fair Value on 30 September 2018 amounted to SEK 848.7 million and the potential distribution to Rosetta Capital amounted to SEK 309.6 million. Net Portfolio Fair Value on 30 September 2018 amounted to SEK 539.1 million.



***Profit development 2018 (comparable numbers 2017)***

During the third quarter 2018, Karolinska Development's revenue amounted to SEK 0.7 (0.5) million and consists primarily of services provided to portfolio companies. Revenue for the period January – September 2018 amounted to SEK 2.2 (1.7) million.

During the third quarter 2018 other expenses amounted to SEK 2.8 (3.0) million and personnel costs amounted to SEK 4.1 (5.9) million. The main reason for the lower personnel costs, compared to the third quarter 2017, is a severance package during third quarter 2017. For the period January – September 2018 other expenses amounted to SEK 10.5 (8.6) million and personnel cost amounted to 12.3 (16.9) million.

Change in fair value of shares in portfolio companies of in total SEK 1.0 (212.2) million includes the difference between the increase in Net Portfolio Fair Value during the third quarter 2018 with SEK 14.4 million and the net of investments in the portfolio companies of SEK 13.4 million. Change in fair value of other financial assets amounted to SEK 19.1 (0.0) million and is mainly a consequence of the valuation of an earn-out deal. During the third quarter a part of this earn-out was realized when SEK 8.7 million was received in cash. For the period January – September 2018 the change in fair value of shares in portfolio companies amounted to SEK 22.1 (203.0) million and the change in fair value of other financial assets amounted to SEK 44.6 (0.0) million.

The operating profit/loss in the third quarter amounted to SEK 14.0 million compared to SEK 203.8 million third quarter 2017. The operating profit/loss for the period January – September 2018 amounted to 46.3 (179.1) million.

Financial net increased during the third quarter 2018 compared to the third quarter 2017 and amounted to SEK -9.9 (-9.7) million. For the period January – September 2018 the financial net amounted to SEK -30.6 (-31.4) million.

The Investment Entity's Net profit/loss amounted to SEK 4.1 (194.1) million in the third quarter 2018. Net profit/loss for the period January – September 2018 amounted to SEK 15.7 (147.6) million.

***Financial position***

The Investment Entity's equity amounted to SEK 281.2 million on 30 September 2018 compared to SEK 277.1 million on 30 June 2018. The increase was a consequence of the Net profit/Loss of SEK 4.1 million for the third quarter 2018. The Investment Entity's equity to total assets ratio amounted to 40% on 30 September 2018 as it also did on 30 June 2018.

After paying operational costs and investments in the third quarter 2018, cash and cash equivalents together with short-term investments, amounted to SEK 88.0 million on 30 September 2018.

---

## Financial Development – Parent Company

---

*The Parent Company refers to Karolinska Development AB (comparable numbers first quarter 2017).*

During the third quarter 2018, the Parent Company's Net profit/loss amounted to SEK 4.1 million (SEK 194.1 million).

Due to the positive result for the third quarter 2018, the equity increased from SEK 277.1 million 30 June 2018 to SEK 281.2 million 30 September 2018.

---

## Shares

---

**The share and share capital**

Trade in the Karolinska Development share takes place on Nasdaq Stockholm under the ticker symbol "KDEV". The last price paid for the listed B share on 28 September 2018 was SEK 8.08, and the market capitalization amounted to SEK 508 million.

The share capital of Karolinska Development on 30 September 2018 amounted to SEK 0.6 million divided into 1,503,098 A shares, each with ten votes (15,030,980 votes) and 62,915,639 B shares, each with one vote



(62,915,639 votes). The total number of shares and votes in Karolinska Development on 30 September 2018 amounted to 64,418,737 shares and 77,928,026 votes.

### Ownership

On September 30, 2018, Karolinska Development had 3,961 shareholders

Shareholder	A-Shares	B-Shares	Cap %	Vote %
KAROLINSKA INSTITUTET HOLDING AB	1,503,098	2,126,902	5.64%	22.01%
TREDJE AP-FONDEN	0	6,373,600	9.89%	8.18%
SINO BIOPHARMACEUTICAL LIMITED	0	4,853,141	7.53%	6.23%
ÖSTERSJÖSTIFTELSEN	0	3,889,166	6.04%	4.99%
COASTAL INVESTMENT MANAGEMENT LLC	0	3,470,466	5.39%	4.45%
OTK HOLDING A/S	0	2,300,000	3.57%	2.95%
RIBBSKOTTET AB	0	1,700,000	2.64%	2.18%
STIFT FÖR FRÄMJANDE&UTVECKLING AV	0	1,397,354	2.17%	1.79%
FÖRSÄKRINGSAKTIEBOLAGET AVANZA PENSION	0	1,238,826	1.92%	1.59%
FRIHEDEN INVEST A/S	0	1,000,000	1.55%	1.28%
Sum Top 10 Shareholders	1,503,098	28,349,455	46.34%	55.65%
Sum Other Shareholders	0	34,566,184	53.66%	44.35%
<b>Sum All Shareholders</b>	<b>1,503,098</b>	<b>62,915,639</b>	<b>100.00%</b>	<b>100.00%</b>

## Information on Risks and Uncertainties

### Investment Entity and Parent Company

#### Financial risks

No new risk areas have been identified since 31 December 2017. For a detailed description of risks and uncertainties, see the annual report 2017.

## Signing of the report

Solna, 13 November 2018

Hans Wigzell  
Chairman

Tse Ping

Vlad Artamonov

Anders Härfstrand

Magnus Persson

Theresa Tse

Viktor Drvota  
CEO

---

## Review report

---

Karolinska Development AB, corporate identity number 556707-5048

### Introduction

We have reviewed the condensed interim report for Karolinska Development AB, the Investment Entity, as at September 30, 2018 and for the nine months period then ended. The Board of Directors and the Managing Director are responsible for the preparation and presentation of this interim report in accordance with IAS 34 and the Swedish Annual Accounts Act. Our responsibility is to express a conclusion on this interim report based on our review.

### Scope of review

We conducted our review in accordance with the International Standard on Review Engagements, ISRE 2410 *Review of Interim Financial Statements Performed by the Independent Auditor of the Entity*. A review consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing and other generally accepted auditing standards in Sweden. The procedures performed in a review do not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

### Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the interim report is not prepared, in all material respects, in accordance with IAS 34 regarding the Investment Entity, and in accordance with the Swedish Annual Accounts Act regarding the Parent Company.

Solna, 13 November 2018

Ernst & Young AB

Björn Ohlsson

Authorized Public Accountant

---

## Dates for Publication of Financial Information

---

Year-end Report 2018

14 February 2019

Karolinska Development is required by law to publish the information in this interim report. The information was published on 13 November 2018. This interim report, together with additional information, is available on Karolinska Development's website: [www.karolinskadevelopment.com](http://www.karolinskadevelopment.com).

*Note: This report is a translation of the Swedish interim report. In case of any discrepancies, the official Swedish version shall prevail.*

## Financial Statements

### Condensed income statement for the Investment Entity

SEK 000	Note	2018 Jul-Sep	2017 Jul-Sep	2018 Jan-Sep	2017 Jan-Sep	2017 Full-year
Revenue		728	537	2,220	1,713	2,464
Change in fair value of shares in portfolio companies	2	979	212,190	22,129	202,968	252,072
Change in fair value of other financial assets		19,134	0	44,654	0	2,483
Other expenses		-2,790	-2,999	-10,463	-8,649	-12,996
Personnel costs		-4,100	-5,940	-12,288	-16,943	-23,513
<b>Operating profit/loss</b>		<b>13,951</b>	<b>203,788</b>	<b>46,252</b>	<b>179,089</b>	<b>220,510</b>
Financial net		-9,878	-9,705	-30,596	-31,445	-40,915
<b>Profit/loss before tax</b>		<b>4,073</b>	<b>194,083</b>	<b>15,656</b>	<b>147,644</b>	<b>179,595</b>
Taxes		-	-	-	-	-
<b>NET PROFIT/LOSS FOR THE PERIOD</b>		<b>4,073</b>	<b>194,083</b>	<b>15,656</b>	<b>147,644</b>	<b>179,595</b>

### Condensed statement of comprehensive income for the Investment Entity

SEK 000	Note	2018 Jul-Sep	2017 Jul-Sep	2018 Jan-Sep	2017 Jan-Sep	2017 Full-year
Net/profit loss for the period		4,073	194,083	15,656	147,644	179,595
<b>Total comprehensive income/loss for the period</b>		<b>4,073</b>	<b>194,083</b>	<b>15,656</b>	<b>147,644</b>	<b>179,595</b>

### Earnings per share for the Investment Entity

SEK	Note	2018 Jul-Sep	2017 Jul-Sep	2018 Jan-Sep	2017 Jan-Sep	2017 Full-year
Earnings per share, weighted average before dilution		0.06	3.03	0.24	2.45	2.93
Number of shares, weighted average before dilution		64,174,452	64,108,498	64,136,941	60,274,818	61,243,234
Earnings per share, weighted average after dilution		0.06	3.03	0.24	2.45	2.93
Number of shares, weighted average after dilution		64,174,452	64,108,498	64,136,941	60,274,818	61,300,516

**Condensed balance sheet for the Investment Entity**

SEK 000	Note	30 Sep 2018	30 Sep 2017	31 Dec 2017
<b>ASSETS</b>				
<b>Financial assets</b>				
Shares in portfolio companies at fair value through profit or loss	2	539,114	410,186	447,783
Loans receivable from portfolio companies		5,100	3,407	3,436
Other financial assets		76,587	38,113	40,596
<b>Total non-current assets</b>		<b>620,801</b>	<b>451,706</b>	<b>491,815</b>
<b>Current assets</b>				
Receivables from portfolio companies		637	341	611
Other current receivables		976	359	531
Prepaid expenses and accrued income		843	868	666
Short-term investments, at fair value through profit or loss		70,123	155,491	150,329
Cash and cash equivalents		17,902	9,862	19,305
<b>Total current assets</b>		<b>90,481</b>	<b>166,921</b>	<b>171,442</b>
<b>TOTAL ASSETS</b>		<b>711,282</b>	<b>618,627</b>	<b>663,257</b>
<b>EQUITY AND LIABILITIES</b>				
<b>Total equity</b>		<b>281,153</b>	<b>235,112</b>	<b>267,121</b>
<b>Long-term liabilities</b>				
Convertible loan	3	416,023	368,411	379,184
Other financial liabilities		4,807	4,807	4,807
<b>Total long-term liabilities</b>		<b>420,830</b>	<b>373,218</b>	<b>383,991</b>
<b>Current liabilities</b>				
Accounts payable		1,030	1,132	1,155
Other current liabilities		1,328	707	1,627
Accrued expenses and prepaid income		6,941	8,458	9,363
<b>Total current liabilities</b>		<b>9,299</b>	<b>10,297</b>	<b>12,145</b>
<b>Total liabilities</b>		<b>430,129</b>	<b>383,515</b>	<b>396,136</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>711,282</b>	<b>618,627</b>	<b>663,257</b>

**Condensed statement of changes in the Investment Entity's equity**

SEK 000	Not	2018-09-30	2017-09-30	2017-12-31
<b>Opening balance, equity</b>				
		<b>267,121</b>	<b>29,815</b>	<b>29,815</b>
Net profit/ loss for the period		15,656	147,644	179,595
Effect of incentive programs		-1,624	-73	-15
Set-off issue		0	57,713	57,713
Share issue		0	13	13
<b>Closing balance, equity</b>		<b>281,153</b>	<b>235,112</b>	<b>267,121</b>

**Condensed statement of cash flows for the Investment Entity**

SEK 000	Note	2018 Jan-Sep	2017 Jan-Sep
<b>Operating activities</b>			
Operating profit/loss		46,252	179,089
<b>Adjustments for items not affecting cash flow</b>			
Change in fair value	2	-66,783	-202,968
Other items		-1,624	96
Proceeds from short-term investments		-595	-279
Interest paid/received		-	2
<b>Cash flow from operating activities before changes in working capital and operating investments</b>		<b>-22,750</b>	<b>-24,060</b>
<b>Cash flow from changes in working capital</b>			
Increase (-)/Decrease (+) in operating receivables		-1,418	-500
Increase (+)/Decrease (-) in operating liabilities		-2,846	1,029
<b>Operating investments</b>			
Part payment from earn-out deal		8,663	-
Proceeds from sale of shares in portfolio companies		11,911	-
Acquisitions of shares in portfolio companies		-74,640	-56,130
Proceeds from sale of short-term investments <sup>1</sup>		79,677	81,549
Investments in short-term investments <sup>1</sup>		-	-
<b>Cash flow from operating activities</b>		<b>-1,403</b>	<b>1,888</b>
<b>Financing activities</b>			
Convertible debentures issue		-	-2,628
<b>Cash flow from financing activities</b>		<b>0</b>	<b>-2,628</b>
<b>Cash flow for the period</b>		<b>-1,403</b>	<b>-740</b>
Cash and cash equivalents at the beginning of the year		19,305	10,602
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD</b>		<b>17,902</b>	<b>9,862</b>
<b>Supplemental disclosure<sup>1</sup></b>			
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD</b>		<b>17,902</b>	<b>9,862</b>
Short-term investments, market value at closing date		70,123	155,491
<b>CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS AT THE END OF THE PERIOD</b>		<b>88,025</b>	<b>165,353</b>

<sup>1</sup>Surplus liquidity in the Investment Entity is invested in interest-bearing instruments and is recognized as short-term 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 fund including cash, cash equivalents and short-term investments described here.

**Condensed income statement for the Parent Company**

SEK 000	Note	2018 Jul-Sep	2017 Jul-Sep	2018 Jan-Sep	2017 Jan-Sep	2017 Full-year
Revenue		728	537	2,220	1,713	2,464
Change in fair value of shares in portfolio companies		979	212,190	22,129	202,968	252,072
Change in fair value of other financial assets		19,134	0	44,654	0	2,483
Other expenses		-2,790	-2,999	-10,463	-8,649	-12,996
Personnel costs		-4,100	-5,940	-12,288	-16,943	-23,513
<b>Operating profit/loss</b>		<b>13,951</b>	<b>203,788</b>	<b>46,252</b>	<b>179,089</b>	<b>220,510</b>
Financial net		-9,878	-9,705	-30,596	-31,445	-40,915
<b>Profit/loss before tax</b>		<b>4,073</b>	<b>194,083</b>	<b>15,656</b>	<b>147,644</b>	<b>179,595</b>
Tax		-	-	-	-	-
<b>NET PROFIT/LOSS FOR THE PERIOD</b>		<b>4,073</b>	<b>194,083</b>	<b>15,656</b>	<b>147,644</b>	<b>179,595</b>

**Condensed statement of comprehensive income for the Parent Company**

SEK 000	Note	2018 Jul-Sep	2017 Jul-Sep	2018 Jan-Sep	2017 Jan-Sep	2017 Full-year
Net profit/loss for the period		4,073	194,083	15,656	147,644	179,595
<b>Total comprehensive income/loss for the period</b>		<b>4,073</b>	<b>194,083</b>	<b>15,656</b>	<b>147,644</b>	<b>179,595</b>

**Condensed balance sheet for the Parent Company**

SEK 000	Note	30 Sep 2018	30 Sep 2017	31 Dec 2017
<b>ASSETS</b>				
<b>Financial assets</b>				
Shares in portfolio companies at fair value through profit or loss	2	539,114	410,186	447,783
Loans receivable from portfolio companies		5,100	3,407	3,436
Other financial assets		76,587	38,113	40,596
<b>Total non-current assets</b>		<b>620,801</b>	<b>451,706</b>	<b>491,815</b>
<b>Current assets</b>				
Receivables from portfolio companies		637	341	611
Other current receivables		976	359	531
Prepaid expenses and accrued income		843	868	666
Short-term investments at fair value through profit or loss		70,123	155,491	150,329
Cash and cash equivalents		17,902	9,862	19,305
<b>Total current assets</b>		<b>90,481</b>	<b>166,921</b>	<b>171,442</b>
<b>TOTAL ASSETS</b>		<b>711,282</b>	<b>618,627</b>	<b>663,257</b>
<b>EQUITY AND LIABILITIES</b>				
<b>Total equity</b>		<b>281,153</b>	<b>235,112</b>	<b>267,121</b>
<b>Long-term liabilities</b>				
Convertible loan	3	416,023	368,411	379,184
Other financial liabilities		4,807	4,807	4,807
<b>Total long-term liabilities</b>		<b>420,830</b>	<b>373,218</b>	<b>383,991</b>
<b>Current liabilities</b>				
Accounts payable		1,030	1,132	1,155
Other current liabilities		1,328	707	1,627
Accrued expenses and prepaid income		6,941	8,458	9,363
<b>Total current liabilities</b>		<b>9,299</b>	<b>10,297</b>	<b>12,145</b>
<b>Total liabilities</b>		<b>430,129</b>	<b>383,515</b>	<b>396,136</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>711,282</b>	<b>618,627</b>	<b>663,257</b>

**Condensed statement of changes in equity for the Parent Company**

SEK 000	Note	30 Sep 2018	30 Sep 2017	31 Dec 2017
<b>Opening balance, equity</b>		<b>267,121</b>	<b>29,815</b>	<b>29,815</b>
Net profit/ loss for the period		15,656	147,644	179,595
Effect of incentive programs		-1,624	-73	-15
Set-off issue		0	57,713	57,713
Share issue		0	13	13
<b>Closing balance, equity</b>		<b>281,153</b>	<b>235,112</b>	<b>267,121</b>



---

## Notes to the Financial Statements

---

### NOTE 1 Accounting policies

This report has been prepared in accordance with the International Accounting Standard (IAS) 34 Interim Financial Reporting and the Annual Accounts Act. The accounting policies applied to the Investment Entity and the Parent Company correspond, unless otherwise stated below, to the accounting policies and valuation methods used in the preparation of the most recent annual report.

#### Information on the Parent Company

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 developing these assets into differentiated products that will make a difference to patients' lives and provide an attractive return on investment to its shareholders. Investments are made in companies whose sole purpose is to generate a return through capital appreciation and investment income. These temporary investments, which are not investment entities, are designated "portfolio companies" below.

#### Changes in accounting principles 2017

No changes in accounting principles has been made for the Investment Company or the parent company during third quarter 2018.

#### New and revised accounting principles 2018

No new or revised IFRS standards or recommendations from IFRS Interpretations Committee has had impact on the Investment Entity. At the introduction of IFRS 16 Leases is expected to have small influence on the financial reporting compared to the current reporting. The company will adopt the "alternatively not restate comparative information" method.

#### Definitions

**Equity per share:** Equity on the closing date in relation to the number of shares outstanding on the closing date.

**Equity to total assets ratio:** Equity divided by total assets.

**Interim period:** The period from the beginning of the financial year through the closing date.

**Reporting period:** January – September 2018.

#### Alternative Performance Measures

The Company presents certain financial measures in the year-end 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 where Karolinska Development has made investments (subsidiaries, joint ventures, associated companies and other long-term securities holdings) which are active in pharmaceuticals, medtech, theranostics and formulation technology.

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.

**Net asset value per share:** Net Portfolio Fair Value of the total portfolio (SEK 539.1 million), loans receivable from portfolio companies (SEK 5.1 million), short-term investments (SEK 70.1 million), cash and cash equivalents (SEK 17.9 million), and net of financial assets and liabilities minus interest-bearing liabilities (SEK 71.8 million minus SEK 416.0 million), in relation to the number of shares outstanding (64 174 452) on the closing date (30 September 2018).

## NOTE 2 Fair value

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, either directly or indirectly
- Level 3-** Fair value determined based on valuation models where significant inputs are based on non-observable data

### Fair value as of 30 September 2018

SEK 000	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>				
Shares in portfolio companies, at fair value through profit or loss	-	-	539,114	539,114
Loans receivable from portfolio companies	-	5,100	-	5,100
Other financial assets	-	-	76,587	76,587
Receivables from portfolio companies	-	637	-	637
Cash, cash equivalents and short-term investments	88,025	-	-	88,025
<b>Total</b>	<b>88,025</b>	<b>5,737</b>	<b>615,701</b>	<b>709,463</b>
<b>Financial liabilities</b>				
Other financial liabilities	-	-	4,807	4,807
Accounts payable	-	1,030	-	1,030
<b>Total</b>	<b>-</b>	<b>1,030</b>	<b>4,807</b>	<b>5,837</b>

### Fair value as of 30 September 2017

SEK 000	Level 1	Level 2	Level 3	Total
<b>Financial assets</b>				
Shares in portfolio companies, at fair value through profit or loss	15,250	-	394,936	410,186
Loans receivable from portfolio companies	-	3,407	-	3,407
Other financial assets	-	-	38,113	38,113
Receivables from portfolio companies	-	341	-	341
Cash, cash equivalents and short-term investments	165,353	-	-	165,353
<b>Total</b>	<b>180,603</b>	<b>3,748</b>	<b>433,049</b>	<b>617,400</b>
<b>Financial liabilities</b>				
Other financial liabilities	-	-	4,807	4,807
Accounts payable	-	1,132	-	1,132
<b>Total</b>	<b>-</b>	<b>1,132</b>	<b>4,807</b>	<b>5,939</b>

**Fair value (level 3) as of 30 September 2018**

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	433,700	40,596	4,807
Acquisitions	81,113	-	-
Gains and losses recognized through profit or loss	24,302	44,654	0
<b>Closing balance 30 Sep 2018</b>	<b>539,115</b>	<b>85,250</b>	<b>4,807</b>
Realized gains and losses for the period included in profit or loss	-26	-	-
Unrealized gains and losses in profit or loss for the period included in profit or loss	24,328	44,654	0

**Fair value (level 3) as of 30 September 2017**

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	149,408	38,113	4,798
Acquisitions	57,810	-	-
Gains and losses recognized through profit or loss	187,718	-	9
<b>Closing balance 30 Sep 2017</b>	<b>394,936</b>	<b>38,113</b>	<b>4,807</b>
Realized gains and losses for the period included in profit or loss	-77	-	-
Unrealized gains and losses in profit or loss for the period included in profit or loss	187,795	0	-9

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 of Portfolio Fair Value**

In the table below, "Total Portfolio Fair Value" is as defined in Note 1.

**Impact on Portfolio Fair Value of the agreement with Rosetta Capital**

"Potential distribution to Rosetta Capital", SEK 309.6 million, is the amount 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 40.7 million that Rosetta Capital currently has invested in KDev Investments' portfolio companies and the distribution of dividends from Rosetta Capital's common and preference shares. The distribution to Rosetta Capital will only happen when KDev Investments distribute dividends. KDev Investments will only distribute dividends after all eventual payables and outstanding debt has been repaid.

"Net Portfolio Fair Value (after potential distribution to Rosetta Capital)" is as defined in Note 1.

**Expanded Portfolio Fair Value calculations taking the portfolio valuation and potential distribution to Rosetta Capital in consideration**

<b>SEK 000</b>	<b>30 Sep 2018</b>	<b>30 Sep 2017</b>	<b>31 Dec 2017</b>
Karolinska Development Portfolio Fair Value (unlisted companies)	450,913	378,286	413,844
Karolinska Development Portfolio Fair Value (listed companies)	-	15,250	14,083
KDev Investments Portfolio Fair Value	397,832	280,501	286,070
<b>Total Portfolio Fair Value</b>	<b>848,745</b>	<b>674,037</b>	<b>713,997</b>
Potential distribution to Rosetta Capital of fair value of KDev Investments	309,632	263,851	266,214
<b>Net Portfolio Fair Value (after potential distribution to Rosetta Capital)</b>	<b>539,113</b>	<b>410,186</b>	<b>447,783</b>

\* SEK 40.7 million repayment of investments in KDev Investments made by Rosetta Capital and SEK 268.9 million distribution of dividends to preference shares and common shares.

**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. 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 or a valuation from an external independent valuation and if the companies recently have met significant milestones. If there is no valuation available based on a recently refinancing or other third-party valuation and there is no valuation available based on a similar transaction or an external independent valuation, discounted cash flow models (DCF) may be used.

For detailed description, see the annual report 2017.

## NOTE 3      **Convertible loan**

Karolinska Development has issued convertible debentures, so called compound financial instruments, in which the holder has right to convert into shares, the number of shares to be issued are not affected by changes in fair value of the shares.

The debt portion of the compound financial instrument is initially recognized at fair value for a similar debt without a conversion right into shares. The equity portion is initially recognized as the difference between the total fair value of compound financial instrument and the fair value of the debt portion. Directly attributable transaction costs are allocated to the debt respectively equity portion based on their initial recognized values.

Post-acquisition the debt portion of the compound financial instrument is valued to amortized costs based on the effective interest method. The equity portion of the compound financial instrument is not revalued post-acquisition, except at conversion or redemption.

Karolinska Development issued convertible debentures with a nominal amount of SEK 387 million on 2 January 2015 which have a nominal interest rate of 8 percent. The nominal amount was reduced to SEK 329 million after the set-off issue in March 2017. The convertible debentures will fall due for payment on 31 December 2019 at the amount of SEK 484 million (as accrued interest is interest bearing), the convertibles grant a right at any time to convert into shares at a conversion rate of 22 SEK per series B share. The value of the debt and equity part (conversion right) was determined on the date of issuance.

The convertible debentures are presented in the balance sheet as shown in the below table.

<b>SEK 000</b>	<b>30 Sep 2018</b>	<b>30 Sep 2017</b>	<b>31 Dec 2017</b>
Nominal amount of convertible debentures issued on 2 January 2015	329,337	386,859	386,859
Issue costs	-23,982	-28,171	-28,171
Equity portion	-42,164	-49,528	-49,528
<b>Debt at issuance date 2 January 2015</b>	<b>263,191</b>	<b>309,160</b>	<b>309,160</b>
Accrued interest costs	115,993	117,900	128,766
<b>TOTAL</b>	<b>379,184</b>	<b>427,060</b>	<b>437,926</b>
<b>Set-off share issue 2017</b>			
Converted nominal amount	-	-57,522	-57,522
Converted part of issue costs	-	4,189	4,189
Converted part of equity portion	-	7,364	7,364
Converted part of accrued interest costs	-	-12,680	-12,680
Redemption of convertible	-	-	-93
<b>Debt prior this year's interest</b>	<b>379,184</b>	<b>368,411</b>	<b>379,184</b>
Accrued interest costs 2018	36,839	-	-
<b>Total</b>	<b>416,023</b>	<b>368,411</b>	<b>379,184</b>