
Karolinska Development

Karolinska Development (Nasdaq Stockholm: KDEV) is an investment company which offers a unique opportunity to participate in the growth in value of a number of Nordic life sciences companies with substantial commercial opportunities. All of the portfolio companies are developing potentially ground-breaking treatments for medical conditions with a substantial need for improved therapies, including leukaemia, serious viral infections, sepsis and systemic inflammation, bone defects, and hepatic encephalopathy. To date, two of the companies have launched their first products.

For further information, see www.karolinskadevelopment.com

Financial Update

First quarter

- The net profit/loss for the first quarter was SEK -29.2 million (SEK 24.9 million in the first quarter of 2021). Earnings per share totalled SEK -0.13. (SEK -0.14 in the first quarter of 2021).
- The result of the Change in fair value of shares in portfolio companies for the first quarter amounted to SEK -17.2 million (SEK -15.5 in the first quarter of 2021). The result is largely due to a downturn in share price of in the listed holdings which is owned directly and indirectly via KDevI Investments.
- The total fair value of the portfolio was SEK 1,279.4 million at the end of March 2022, corresponding to a decrease of SEK 13.7 million from SEK 1,293.1 million at the end of the previous quarter. The net portfolio fair value at that time was SEK 944.1 million, corresponding to a decrease of SEK 6.1 million from SEK 950.2 million at the end of the previous quarter. The decrease is mainly an effect of the downturn in share price of the listed holdings.
- Net asset value amounted to SEK 1,305.6 million, per share SEK 4.8, at the end of March 2022 (SEK 778.7 million, per share SEK 4.4 at the end of March 2021).
- Net sales totalled SEK 0.6 million during the first quarter of 2022 (SEK 0.6 million during the first quarter of 2021).
- Karolinska Development invested a total of SEK 11.2 million in portfolio companies during the first quarter of 2022. First quarter investments in portfolio companies by Karolinska Development and other specialised life sciences investors totalled SEK 33.2 million.
- Cash and cash equivalents (including short-term investments) increased by SEK 208.9 million during the first quarter, totalling SEK 301.3 million on 31 March 2022. During the first quarter, Karolinska Development carried out a rights issue, which provided the company with SEK 235 million in cash and further SEK 125 million in reduced loans which were converted into shares.

Significant events during the first quarter

- The portfolio company Svenska Vaccinfabriken has appointed Richard Bethell as new CEO. He will assume the position immediately. Richard Bethell holds a D.Phil in Biological Chemistry from the University of Oxford, has thirty years of experience in the biopharmaceutical industry and has worked primarily in the development of new products for the treatment and prophylaxis of infectious diseases (January 2022).
- The Portfolio company Umeocrine Cognition has presented results from a preclinical study showing that the drug candidate golexanolone has a suppressive effect on neuroinflammation in the cerebellum, leading to the cessation of disease-related motor disturbances. The study further enhances understanding of golexanolone's mechanism of action and highlights its potential to treat symptoms related to movement and coordination. The study was carried out in collaboration with Dr Vincente Felipo at the Laboratory of Neurobiology, Centro de Investigación Principe Felipe, Valencia (January 2022).
- At the Extraordinary General Meeting of Karolinska Development held on January 12, 2022, the following resolutions were passed: Election of a new member of the Board of Directors, approval of the Board of Directors' resolution to issue shares with preferential rights for existing shareholders and amendment of the articles of association (January 2022).
- Karolinska Development publishes a prospectus which has been approved and registered by the Swedish Financial Supervisory Authority due to the upcoming rights issue (January 2022).
- The portfolio company AnaCardio has completed a fundraising of SEK 33 million comprised of a convertible loan. Karolinska Development participated in this important funding, which enables AnaCardio to proceed with the clinical development plans for the company's lead asset AC01 (February 2022).
- Karolinska Development AB announces definitive outcome in rights issue. Karolinska Development's rights issue with preferential rights for shareholders is completed. The rights issue was subscribed to 76.9 per cent and Karolinska Development has received SEK 378 million before transaction costs and set-off of loans. The issue proceeds will finance the continued development of existing investments, new investments, and general corporate purposes. In total, the rights issue was subscribed to 76.9 per cent, of which 74.5 per cent was subscribed with subscription rights and 2.4 per cent without the support of subscription rights. No guarantee undertakings were claimed. Karolinska Development directs gratefulness to existing shareholders for their participation in the rights issue and at the same time welcomes a number of new shareholders, including Swedbank Robur Microcap and Nyenburgh Holding B.V.
The subscription price in the rights issue was SEK 4.00 per share. Through the rights issue, the share capital in Karolinska Development increases by SEK 944,121.85, through the issue of 1,052,163 shares of class A and 93,360,022 shares of class B, to a total of SEK 2,700,775.94 allocated to 270,077,594 shares, of which 2,555,261 shares are of class A and 267,522,333 shares are of class B (February 2022).
- The portfolio company OssDsign has signed a long-term contract to deliver OssDsign Cranial PSI to the largest hospital network in France, Assistance Publique – Hôpitaux de Paris (AP-HP) (March 2022).

Significant post-period events

- The portfolio company OssDsign has enrolled the first patient to the company's multi-centre, prospective spinal fusion registry in the U.S, PROPEL. The objective is to evaluate the use and outcome of OssDsign Catalyst in real-world clinical practice (April 2022).
- The portfolio company OssDsign has enrolled all patients in the clinical study TOP FUSION, which will primarily evaluate the safety and efficacy of OssDsign Catalyst in patients undergoing spinal fusion surgery (April 2022).
- The portfolio company Promimic 's IPO offering was fully subscribed. Promimic is now provided with SEK 80 million before deductions for issue costs, profoundly strengthening the company's position ahead of its continued growth journey. Trading in the company's shares is estimated to begin on Friday, April 29 on Nasdaq First North Growth Market (April 2022).

Viktor Drvota, CEO of Karolinska Development, comments:

"With its strong financial position, long-term investment strategy and professional team, Karolinska Development is excellently positioned to continue with its value creation, even in a more challenging market climate."

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Chief Executive's Report

Karolinska Development completed a rights issue that yielded SEK 378 million before transaction costs and set-off loans during the first quarter of 2022. The rights issue also saw us welcome a number of new shareholders who took advantage of the opportunity to subscribe for shares without subscription rights, including Swedbank Robur Microcap and Nyenburgh Holding B.V. The capital injection generated by the rights issue means we now have the ability to continue developing our existing portfolio companies while simultaneously evaluating opportunities for new investments in attractive life science innovations. Our focus will continue to be on pharmaceutical projects that show signs of proof-of-concept in clinical trials, and on companies with medtech products that have surmounted regulatory barriers and are in the early launch phase.

New research findings boost Umecrine Cognition's pharmaceutical project

In January, Karolinska Development's portfolio company, Umecrine Cognition, presented results from a preclinical study showing that their candidate drug, golexanolone, has a suppressive effect on neuroinflammation in the cerebellum, leading to the cessation of disease-related motor disturbances. These new preclinical results support the further development of golexanolone as a potential treatment for inflammatory diseases of the CNS. The company is currently preparing a clinical phase 2 study in the commercially attractive indication of primary biliary cholangitis and is also evaluating further clinical development in hepatic encephalopathy.

New CEO for Svenska Vaccinfabriken

The Covid-19 pandemic has spotlighted the enormous need for preventative vaccines against serious respiratory infections, the pharmaceutical industry is also heavily engaged in developing therapeutic vaccines that can be used to treat patients infected with potentially life-threatening forms of the hepatitis virus. Karolinska Development's portfolio company, Svenska Vaccinfabriken, is on the front line in both of these areas. The company is still in a start-up phase and has successfully strengthened its team in parallel with the progress made on these vaccine projects. In January, Richard Bethell took over as the company's new CEO. With thirty years' experience in the biopharmaceutical industry, where he worked primarily in the development of new products for the treatment of infectious diseases, Richard is ideally suited to lead Svenska Vaccinfabriken on their ongoing journey.

AnaCardio's funding boosted ahead of phase 1b/2a study launch

A successful fundraising programme yielding SEK 33 million was completed during the quarter by our portfolio company, AnaCardio, whose candidate drug, AC01, has already completed clinical trials and is now being readied for a phase 1b/2a study in patients with heart failure. Ground-breaking research by the Karolinska Institute has shown that the candidate drug's unique mechanism has the potential to improve the functioning of heart muscle. The company expects to be able to start the phase 1b/2a study of AC01 in 2022.

Additional progress for OssDsign

The medtech portfolio company, OssDsign, performed strongly during the first quarter of the year. In March, it signed a prestigious group purchasing agreement with the biggest hospital network in France, Assistance Publique – Hôpital de Paris (AP-HP), which performs over 10% of all cranial surgery in France. OssDsign will deliver its innovative cranial implant, OssDsign Cranial PSI, to the hospitals in the network during the period from 1 April 2022 to 31 October 2025. OssDsign also achieved another important milestone in early

April when the first patient was enrolled in the prospective PROPEL register in the USA, whose objective is to evaluate the use and outcome of OssDsign Catalyst in conjunction with spinal fusion. The product received FDA approval in 2020 and was launched on the US market in August 2021.

Successful Promimic listing

Trading in Promimic's share begins today on the NASDAQ First North Growth Market after the successful completion of a listing process. In the current market climate, a successful listing is not broadly, but we are not surprised that Promimic has succeeded in this respect. The company manufactures and markets a unique biomaterial that can be applied to orthopaedic and dental implants to facilitate the healing process and improve bone integration and anchoring strength. Over 600,000 operations involving implants treated with Promimic's biomaterial have already been carried out worldwide. A rights issue that provides a strong financial base for the company ahead of its ongoing value creation was, furthermore, conducted in conjunction with the listing. Promimic now intends to expand its US sales organisation, to intensify its strategic client and marketing activities, and to establish a processing facility in the USA, and will, at the same time, continue to work on the development of its technology platform to broaden its customer offering.

Our engagement in Promimic is an excellent example of how our long-term investment horizon enables us to add value at every stage of our portfolio companies' development, from the establishment of a new company based on ground-breaking research, via the development of the projects to proof-of-concept, all the way through to stock market flotation or the sale of the company.

Stable base for value creation, even in a more challenging market climate

The current market climate is characterised by a reduced appetite for risk – largely in the light of the war in Ukraine, the ongoing aftermath of the Covid-19 pandemic, and the rise in interest rates. This poses challenges for the financing of life science companies, but can, at the same time, give rise to interesting investment opportunities at lower valuation levels than those we have seen in recent years. With its strong financial position, long-term investment strategy and professional team, Karolinska Development is excellently positioned to continue with its value creation. I am convinced that our efforts to support our existing and future portfolio companies in their development and commercialisation of new biopharmaceuticals and medtech products will help result in better treatments for large groups of patients worldwide.

Solna, 29 April 2022

Viktor Drvota
Chief Executive Officer

Portfolio Companies

High potential for continued value generation

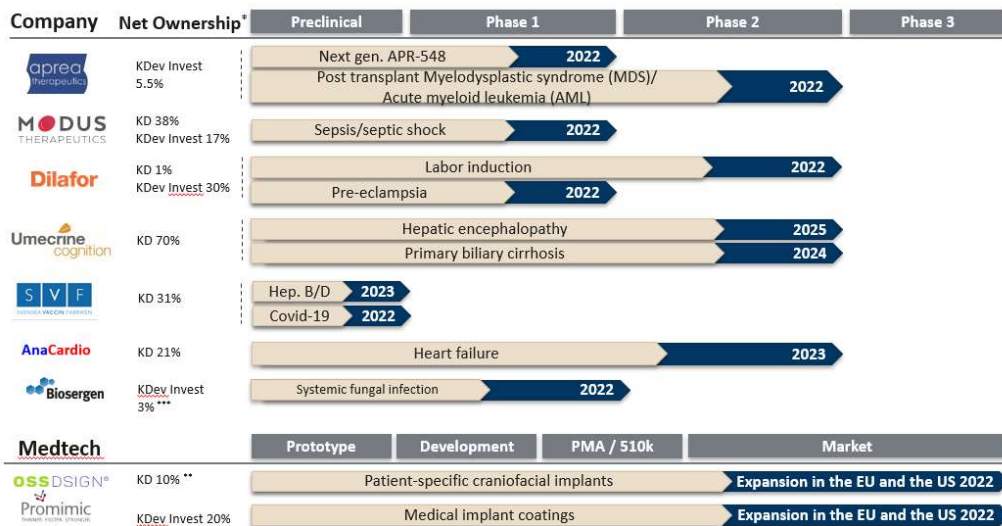
Karolinska Development's investments in therapeutic companies are conducted in syndicates with other professional life science investors, normally until proof-of-concept is demonstrated in phase 2 trials, at which point different exit options are evaluated. When engaging in medtech companies, the business model is to finance the companies until they show a positive operating profit.

The portfolio currently consists of nine companies focused on developing innovative treatment methods for diseases that are life-threatening or involve a risk of severe disabilities and other medical conditions. Seven of the portfolio companies have drug candidates in ongoing clinical trials and two companies have medtech products in early commercial phases. During the period 2022–2023, four portfolio companies are expected to present data from phase 1 studies and three portfolio companies are expected to present data from phase 2 studies. These study results have the potential to significantly increase the opportunities for attractive divestments or license transactions. Comparable drug candidates have in recent years been out licensed or sold at contract values that have amounted to billions for the individual projects.

Over the years, the portfolio companies have been strengthened with team members with a documented abilities to close international business deals in the life sciences sector.

In addition to the portfolio companies, Karolinska Development has interests in two other life science companies, Forendo Pharma and Oncopeptides, in the form of earn out agreements.

Our current portfolio – potential for value-inflection



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

Current phase Progress and expected results



Project (First-in class)
Eprenetapopt (APR-246)
APR-548

Primary indication
Myelodysplastic syndrome (MDS)
Acute myeloid leukaemia (AML)

Development phase
Phase 3

Holding in company*
KDev Investments 5.5%

Other investors
Fidelity Investments
Redmile Group
Consonance Capital
Sectoral Asset Management
Janus Capital Group
The Vanguard Group
Rock Springs Capital
BlackRock

Origin
Karolinska Institutet

More information
 aprea.com

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

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 Inc



Attacks tumor suppressor protein for increased chance of surviving cancer

Aprea Therapeutics (Boston, USA and Stockholm, Sweden) develops novel drugs targeting the tumour suppressor protein, p53. Mutations of the p53 gene occur in around 50 per cent of all human tumours and are associated with poor overall survival. Aprea's candidate drug, eprenetapopt (APR-246), has shown an ability to reactivate mutant p53 protein, inducing programmed cell death in many cancer cells.

During the second quarter of 2021, the FDA approved orphan drug designation for eprenetapopt as treatment for acute myeloid leukaemia (AML). Six months earlier, the FDA approved fast track designation for eprenetapopt within the AML indication.

During the third quarter 2021, Aprea Therapeutics reported positive results from a phase 2 study of eprenetapopt in combination with azacitidine for post-transplant maintenance therapy in patients with TP53-mutated myelodysplastic syndrome (MDS) or acute myeloid leukaemia (AML). In the 33 patients included in the study, relapse-free survival (RFS) one year after transplantation was 58 per cent and median RFS 12.1 months. The overall survival (OS) one year after transplantation was 79 per cent, with a median OS of 19.3 months. The treatment was well tolerated. The FDA has approved an Investigational New Drug (IND) application for APR-548 – a next-generation drug candidate in oral form. The company is now initiating a clinical development programme for APR-548 for the treatment of TP53-mutated MDS.

Aprea is listed on the NASDAQ Global Select Market in the USA since October 2019.

The market

Eprenetapopt has the potential for use in many different types of cancer as mutations in p53 are found in around 50 per cent of all diagnosed cancers. The lead target indications thus far include blood tumours such as MDS and AML. MDS is an orphan disease and represents a spectrum of hematopoietic stem cell malignancies. Approximately 30-40 per cent of MDS patients progress to AML and mutations in p53 are found in up to 20 per cent of MDS and AML patients, which is associated with poor overall survival.

Recent progress

- New, positive results were reported from a phase 2 trial evaluating the drug candidate eprenetapopt with azacitidine for post-transplant maintenance therapy in patients with TP53 mutant MDS and AML in the summer of 2021.
- In August 2021, FDA issued a clinical hold for Aprea Therapeutics clinical program evaluating eprenetapopt with acalabrutinib or venetoclax and rituximab in lymphoid malignancies.
- The FDA removed the clinical hold for eprenetapopt in December 2021.

Expected milestones

- The results from the phase 1 study of APR 548 are expected in the second half of 2022.

Project (First-in-class)

Sevuparin

Primary indication

Sepsis/Septic shock

Development phase

Phase 2

Holding in company*

Karolinska Development 37%

KDev Investments 17%

Other investors

The Foundation for Baltic and

East European Studies

Ergomed


Praktikerinvest

Origin

Karolinska Institutet

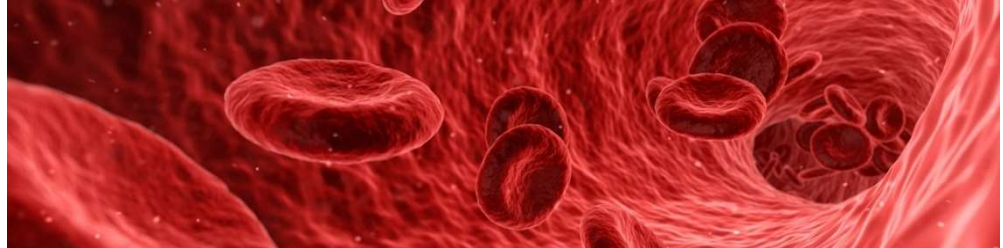
Uppsala University

More information

 modustx.com

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

Modus Therapeutics AB



Develops treatments against life threatening sepsis/ septic shock

Modus Therapeutics (Stockholm, Sweden) is developing sevuparin as a treatment of sepsis/septic shock, a potentially life-threatening condition that currently lack efficient pharmaceutical therapies. Patients that are affected by sepsis are exposed to a risk of developing multi-organ failure and – in severe cases – decease. Data from pre-clinical animal as well as in vitro human cell models has revealed that sevuparin was able to protect blood vessels and counteract lung plasma leakage during systemic inflammation. Previous clinical trials in other patient groups have shown that sevuparin is well tolerated and has a favourable safety profile.

In December 2021, the first human subject in a phase 1b study of sevuparin was dosed. The randomized, placebo-controlled study will evaluate the effect of sevuparin on the symptoms in healthy individuals who have had the bacterial toxin lipopolysaccharide (LPS) injected into the skin (local inflammation) and into the blood (systemic inflammation). Modus Therapeutics will also, together with Imperial College in London, evaluate the effect of sevuparin in patients with severe malaria. Malaria causes more than 400,000 deaths per year and the need for new and effective drugs is therefore great.

In July 2021, Modus Therapeutics carried out an oversubscribed issue of units (subscription rate 113 per cent) and was thus provided with SEK 30 million after transaction costs. In July, the Company's share was listed on the Nasdaq First North Growth Market in Stockholm.

The market

Septic shock is a leading cause of death in intensive care units, with mortality rates typically exceeding 30 per cent. There is currently no specific pharmaceutical treatment available for the treatment of sepsis. As a result, it is one of the costliest conditions to treat in the hospital care setting. In 2019, US healthcare costs for patients with sepsis were estimated at USD 23 billion. Sepsis/septic shock is triggered by an infection and causes the same form of severe uncontrolled inflammation that can occur in conjunction with extensive surgery, trauma, burns and autoimmunity.

Recent progress

- In July 2021, Modus Therapeutics secures SEK 30 million through an oversubscribed issue of units (subscription rate 113 per cent). The company's share is listed on Nasdaq First North in Stockholm.
- Modus Therapeutics announced that their phase 1b clinical trial with sevuparin was approved by certified authorities in the Netherlands and in December 2021, the first subject in the sevuparin study was dosed.

Expected milestones

- Ongoing phase 1b LPS challenge study, with H1 2022 as the estimated completion date.
- Phase 2 proof-of-concept (PoC) for sepsis/septic shock with an estimated start date of Q4 2022.

Dilafor

Project (First-in-class)
 Tafoxiparin

Primary indication
 Labor induction
 Preeclampsia

Development phase
 Phase 2b

Holding in company*
 Karolinska Development 1%
 KDev Investments 30%

Other investors
 The Foundation for Baltic
 and East European
 Studies
 Opocrin
 Praktikerinvest
 Rosetta Capital
 Lee's Pharmaceutical

Origin
 Karolinska Institutet

More information
 dilafor.com

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

Deal values for similar projects

- USD 397 million
 Velo Bio (seller) & AMAG
 Pharmaceuticals (buyer)
 2018
- USD 465 million
 Palatin Technologies
 (licensor) & AMAG
 Pharmaceuticals
 (licensee) 2017

Dilafor AB



Reducing complications with childbirth

Dilafor (Solna, Sweden) is developing tafoxiparin for obstetric indications, with particular reference to protracted labour and associated complications. About one quarter of all pregnant women undergo induction in labour. In just over half of all cases, the induction fails, leading to protracted labour that entails an increased risk for both mother and child due to medical complications. Between 25 and 40 per cent of women who experience protracted labour eventually require an emergency caesarean section. Surgical intervention always entails not only a risk to the patient, but substantial health care costs. Tafoxiparin could eliminate patient suffering and save valuable health care resources.

In 2021, the results of a placebo-controlled phase 2b study were presented which show that tafoxiparin has a significant positive effect on cervical ripening in first-time mothers who receive treatment to initiate labour. The study included 170 first-time mothers with immature cervixes, which are treated to ripen the cervix and thereby facilitate the onset of labour. Patients were treated with either a subcutaneous injection of tafoxiparin or a placebo once daily for up to one week prior to scheduled initiation. The primary objective of the study was to document the effect of tafoxiparin on cervical ripening measured as the degree of ripening according to an internationally established scale, the Bishop score.

The study results showed that tafoxiparin affected the ripening of the cervix compared to placebo, with a difference that was statistically significant ($p < 0.009$). Based on the positive results, Dilafor plans to extend the phase 2b study, in order to document the effect of tafoxiparin also in two lower doses than what has been studied thus far. Based on an external valuation, Karolinska Development increased the book value of its holding in the portfolio company by SEK 450 million as a result of the positive results in the phase 2b study.

The market

Approximately one quarter of all pregnant women require labour induction. The current standard treatment includes administration of prostaglandins and oxytocin, but in over 50 per cent of cases, the induction fails, leading to protracted labour, emergency caesarean sections, or other maternal and foetal complications. Market analyses show that a drug with a good effect on the ripening of the cervix has the potential to reach annual sales over USD 1 billion in the US market alone.

Recent progress

- Dilafor enrolled the first patient in a clinical Phase 2a study with tafoxiparin in pregnant women diagnosed with preeclampsia (October 2021).

Expected milestones

- Continued phase 2b study with lower dosage according to plan.



Project (First-in-class)
 Golexanolone (GR3027)


Primary indications
 Hepatic encephalopathy
 Primary biliary cholangitis

Development phase
 Phase 2a

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.*

Umechrine Cognition AB



A new approach to treating hepatic encephalopathy

Umechrine Cognition (Solna, Sweden) is developing golexanolone (GR3207) – a candidate drug in a new class of pharmaceuticals that affect the GABA system. An over-activation of the inhibitory GABA system in the CNS is suspected in conjunction with liver failure, causing very serious clinical symptoms. The over-activation is also thought to lay behind certain cognitive impairments and sleep disturbances. GABAA-receptor modulating steroid antagonists, such as golexanolone, counter the increased activation of the GABA system and hence constitute a promising group of candidate drugs.

Golexanolone has been shown to restore different types of neurological impairments in experimental models. The candidate drug enters the brain and works by reversing the inhibitory effects of the neurosteroid allopregnanolone on brain function in humans.

Umechrine Cognition has conducted a clinical phase 2a study of golexanolone in patients with hepatic encephalopathy (HE) – a serious neuropsychiatric and neurocognitive condition that occurs in conjunction with acute and chronic hepatic damage with underlying cirrhosis. The results showed that the candidate drug was well-tolerated, that the safety profile was good, and that the pharmacokinetic profile was favourable. One of the effect parameters – a well-established and sensitive form of EEG study – demonstrates that the candidate drug has a significant effect on brain signalling, with a correlated positive effect on extreme daytime fatigue. However, there was no significant effect on other secondary outcome measures. Based on these study results, the company has established a plan for the further development of the candidate drug.

Deal values for similar projects

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

The market

HE is a serious disease with a large unmet need that affects up to 1 per cent of the population in the USA and EU. 180,000– 290,000 patients are hospitalised every year in the USA due to complications of HE. Once HE develops, mortality reaches 22–35 per cent after five years. HE is also associated with substantial societal costs.

Recent progress

- Umechrine Cognition presented new scientific results that support the development of golexanolone as treatment for primary biliary cholangitis (PBC). Since Umechrine Cognition's candidate drug golexanolone has the ability to affect allopregnanolone, the company has, based on these new findings in combination with other supportive results, decided to commence the planning of a clinical phase 2 study within PBC (November 2021).
- The company presented results from a preclinical study showing that the drug candidate golexanolone has a suppressive effect on neuroinflammation in the cerebellum, leading to the cessation of disease-related motor disturbances (January 2022).
- Umechrine Cognition successfully conducted pre-IND meeting with FDA (March 2022).

Going forward

- The development work continues according to plan both in the HE and PBC studies.




Project (First-in-class)
SVF-001

Primary indication
Hepatitis B and D
SARS-CoV-2
and other Coronaviruses

Development phase
Preclinical

Holding in company*
Karolinska Development 31%

Origin
Karolinska Institutet

More information
 svenskavaccinfabriken.se

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

Svenska Vaccinfabriken Produktion AB



New technology for the treatment of viral diseases

Svenska Vaccinfabriken (SVF, Solna, Sweden) develops therapeutic proteins and DNA vaccines against hepatitis B and D, as well as vaccines to prevent infections by SARS-CoV-2 and potential future Coronaviruses. Therapeutic vaccines, unlike preventative vaccines, have the potential to cure already infected patients.

Despite the availability of preventative vaccines and antiviral treatments, over 250 million people live with a chronic hepatitis B infection. One million chronic carriers die each year due to complications caused by the virus, such as liver cirrhosis and liver cancer. The closely related hepatitis D virus infects 15-25 million hepatitis B carriers and exacerbates the progression of the disease.

Svenska Vaccinfabriken uses an in-house developed vaccine platform to produce a specific form of antibodies that blocks the ability of the hepatitis virus to invade human cells. The company has generated promising efficacy data in a preclinical animal model regarding hepatitis and is now continuing its preclinical development with the goal of enabling a phase 1 study to be initiated in 2023.

Although Coronavirus infections are usually mild, some virus types can lead to life-threatening conditions. To respond to and to prevent severe infections, SVF has also developed a platform that is expected to enable an opportunity to quickly develop and produce vaccines against both current and new forms of Coronaviruses. The company has granted patents for chimeric genes and peptides that elicit an immune response against chronic hepatitis B and D infections and has filed a patent application linked to a potential covid-19 vaccine.

Svenska Vaccinfabriken's business model is based on guiding their vaccine projects to the clinical development phase and then licensing them out global pharmaceutical companies with established distribution networks.

The market

Svenska Vaccinfabriken is currently focusing its innovative vaccine platform on the market for therapeutic vaccines for hepatitis B and D, and preventative vaccines for respiratory viral diseases, such as Covid-19. The 2017 KuicK research report, "Global Hepatitis Drug Market & Clinical Trials Insight 2023" estimated the value of the annual global market for hepatitis B at between USD 4 and 5 billion, growing to USD 5-6 billion by 2023. The annual global market for hepatitis D, by contrast, is estimated at around USD 1 billion. Investors' interest in early vaccine companies and platforms similar to Svenska Vaccinfabriken's has increased markedly in recent years. This is thought to be due to an increased awareness of the potential for the commercialisation of vaccines based on next generation technology, such as RNA vaccines and DNA vaccines. Interest in therapies to treat hepatitis B and D has further intensified – two areas in which the unmet medical need is still significant.

Recent progress

- Richard Bethell is appointed new CEO in January 2022.

Expected milestones

- The work of preparing the hepatitis B and D vaccine product for development in humans is expected to be completed in 2022.
- Phase 1 study with COVID vaccine expected to be initiated in 2022
- Phase 1 studies of hepatitis B and D vaccines are expected to be initiated in 2023.

AnaCardio


Project (First-in-class)
Peptide

Primary indication
Heart failure

Development phase
Phase 2a

Holding in company'
Karolinska Development 21%

Origin
Karolinska Institutet
Karolinska University Hospital

More information
 anacardio.com

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

Deal values for similar projects

- USD 2.1 billion
Cardioxyl
Pharmaceuticals
(licensor) & Bristol-Myers
Squibb (licensee), 2015
- USD 620 million
Corthera (licensor) &
Novartis (licensee), 2012

AnaCardio AB



Protects heart tissue in heart failure

AnaCardio (Stockholm, Sweden) is developing a new form of drug concept that protects cardiac tissue in conjunction with heart failure. Heart failure occurs when the heart's ability to pump sufficient blood to meet the body's needs has deteriorated. The underlying condition often involves a weakening of the heart's musculature, resulting in an inability to pump the blood out of the heart's chambers. The condition arises as a sequela of previous cardiovascular complications, such as high blood pressure or vasoconstriction. Chronic heart failure often presents with diffuse symptoms, such as tiredness or breathlessness, and delayed diagnosis is consequently a common problem. Acute heart failure results in an individual's health status becoming critical, necessitating hospitalisation. One of the major issues with existing pharmaceuticals is that they are not designed for long-term treatment, due to a degree of toxicity that results in the breakdown of cardiac tissue and consequent side effects, such as arrhythmia, low blood pressure, ischemia, and an increased risk of premature mortality.

AnaCardio's clinical candidate drug is being developed to restore the heart's normal muscular function and blood circulation with ground-breaking and safer technique. The Company's goal is to develop an oral drug that in contrast to existing treatments can affect the underlying cause of disease. The drug candidate is based on research by Professor Lars Lund at Karolinska Institutet. Karolinska Development invested in Ana Cardio in June 2021 and in conjunction with this a new Board of Directors was appointed. In the third quarter of 2021, the Company's new management was established including Patrik Strömberg as CEO and Alan Gordon as Medical Director.

The market

An estimated 20 million people suffer from chronic heart failure and around 3 million people are hospitalised to treat it every year. The risk of developing cardiovascular disease increases with age, and 10-20 per cent of the elderly population is now estimated to suffer from chronic heart failure, which is now the most common reason for hospitalisation amongst the elderly. Heart failure not only causes considerable individual suffering, it also has significant economic consequences for society in the form both of direct costs from in-patient care and of indirect costs in the form of productivity losses and reductions in tax revenues. The increased medical need is reflected in the sales value of heart failure treatments, which is expected to increase from USD 3.8 billion to USD 16.1 billion by 2026 in the world's seven largest pharmaceutical markets.

Recent progress

- During the autumn of 2021, the company has Strengthened the organization with, among other things, the recruitment of Patrik Strömberg as CEO prior to the initiation of a phase 1b / 2a study of the drug candidate AC01 in patients with heart failure.
- During February 2022, the company raised SEK 33 million through a convertible loan. Karolinska Development has participated in this important financing, which enables AnaCardio to proceed with the clinical development plans for the Company's drug candidate AC01.

Expected milestones

- Completion of preparations for phase 1b/2a study.
- Start of phase 1b/2a study.

OSSDSIGN®
Project

OSSDSIGN® Cranial PSI and
OSSDSIGN® Catalyst

Primary indication

Cranial implants
Bone grafts

Development phase

Marketed

Holding in company*

Karolinska Development 10%**


Other investors

SEB Venture Capital
Fouriertransform

Origin

Karolinska University
Hospital, Uppsala University

More information

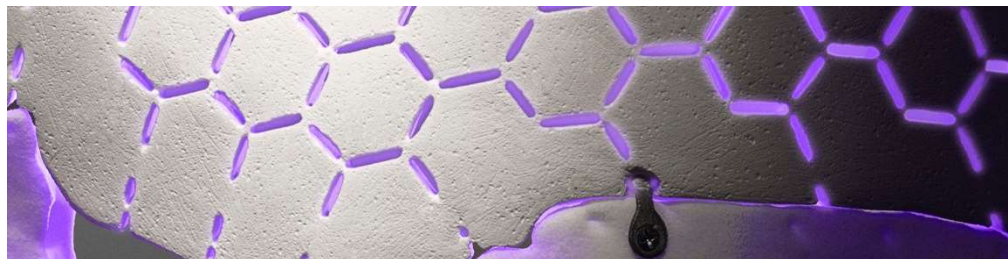
 ossdsign.com

** 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

**Developing and commercializing next generation
bone replacement products**

OssDsign (Uppsala, Sweden) is an innovative company that designs and manufactures implants and material technology for bone regeneration. The Company is focused on two particularly challenging areas where the success rate is far from acceptable today: cranial and spinal surgeries.

OssDsign Cranial PSI is an implant used for patients who have lost a large part of the cranium. The implant is constructed from 3D printed medical-grade titanium covered by a regenerative calcium phosphate composition. Long term follow-up data from over 1000 patients with OssDsign Cranial PSI implants, show an exceptional performance. Many cranial implant technologies are associated with high rates of costly complications and patient suffering. Multiple studies report infection rates above 10 per cent, leading to the removal of many implants. In comparison, the observed rate of explantations due to infections in patients who received OssDsign Cranial PSI was only 1.6 per cent at a median follow-up time of 22 months. OssDsign Cranial PSI has regulatory approvals in Europe, USA and Japan.

Approximately 20 per cent of these surgeries for treating lower back pain are unsuccessful due to the lack of proper fusion between the implant and the spine. When surgeons perform the procedure, they use a combination of hardware to fixate the vertebrae and bone replacement material to stimulate bone growth. OssDsign Catalyst is an innovative synthetic bone graft composed of a proprietary nanocrystalline structure of calcium phosphate. Similar to the body's own bone mineral architecture, OssDsign Catalyst provides a favorable bone biology environment for rapid and reliable bone formation.

OssDsign Catalyst is a high margin and scalable product with a large potential in the market for standard procedures, enabling extensive growth. OssDsign Catalyst received FDA clearance in 2020 and was launched in the U.S. in August 2021.

The market

The global market for cranial implants is estimated to USD 2.5 billion with an expected CAGR of 7 per cent between 2021–2025, whereof the addressable market for OssDsign's implant products is estimated to USD 350 million. The U.S. market for synthetic bone grafts in spinal surgeries is valued at USD 1.8 billion.

Recent progress

- OssDsign Catalyst launched in the U.S and the first patients in the US have been treated (August 2021).
- OssDsign has received an expanded marketing authorization from FDA for the company's patient-specific cranial implant product OssDsign Cranial PSI (October 2021).
- Signed long-term agreement to deliver OssDsign Cranial PSI to France's largest hospital network, Assistance Publique - Hôpitaux de Paris until October 2025 (March 2022).
- OssDsign includes first patient in the prospective multi-center registry PROPEL for spinal fusion in the US (April 2022).

Expected milestones

- Financing for continued roll-out of the products internationally


Project

 HA^{nano} Surface

Primary indication

Implant surface coatings

Development phase

Marketed

Holding in company*

KDev Investments 20%

Other investors

K-Svets Ventures


ALMI Invest

Chalmers Ventures

Origin

Chalmers University of

Technology

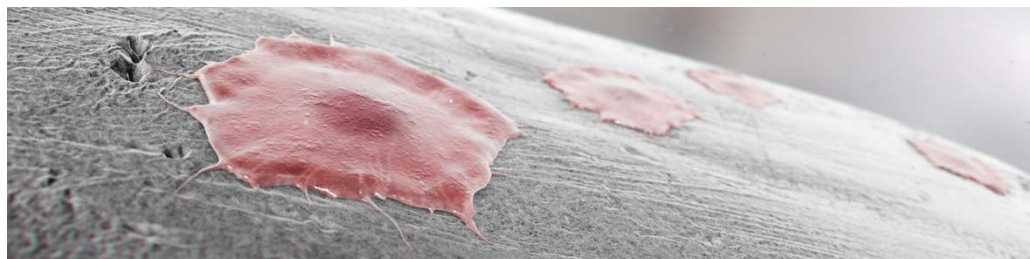
More information
 promimic.com

**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^{nano} Surface, which increases their integration into bone and anchoring strength. HA^{nano} Surface is durable nanometre-thin coating that helps preserve the surface structure of the implant by reducing the risks of cracking. The coating is unique because it can be applied to any implant geometry and material, including porous materials and 3D structures. The technology on which HA^{nano} is based is FDA-approved, which means that a new implant coated with HA^{nano} Surface can receive marketing approval through the 510(k) route and reach a new market quickly. In 2021, such an approval was granted for BioGrip® Modular Porous Collars, a product developed by Onkos Surgical.

Promimic has an established sales operation in the USA and a series of development and commercial partnerships, including one with Sistema de Implante Nacional (S.I.N), a leading provider of dental implants in Brazil, which is commercialising dental implants coated with HA^{nano} Surface, and one with Danco Anodizing, which has established a manufacturing facility for implants with HA^{nano} Surface, targeting the US and Chinese markets. Promimic has gradually strengthened its position in the orthopedic market by entering collaboration with Onkos Surgical and INNOVASIS Inc. The collaboration with Onkos Surgical includes the development and commercialization of products treated with HA^{nano} Surface technology for hip cancer surgery. INNOVASIS Inc. Manufactures and sells 3D-printed spinal implants treated with HA^{nano} Surface® in order to improve osseointegration and stimulate new bone formation and bone growth on the implant surface.

The market

Promimic focuses on two main segments and these are the markets for orthopedic and dental implants. Together, these segments represent a global market opportunity for the Company worth up to USD 600-800 million in 2025. Within these segments, the Company's target group is medium to large sized implant companies and the main market is the United States.

Recent progress

- During 2021, eight new products were submitted to the FDA for 510(k) approval.
- Eight products with Promimic's technology were also approved by the FDA in 2021.

Expected milestones

- In the beginning of 2022, further product launches and license agreements are expected to be closed and announced. In 2022, the Company expects to run approximately 15 development projects.
- Promimic has decided to list the company's share on Nasdaq First North Growth Market in Q2 2022.

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 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	2022 Jan-Mar	2021 Jan-Mar	2021 Full-year
Condensed income statement			
Change in fair value of shares in portfolio companies	-17.2	-15.5	223.2
Net profit/loss	-29.2	-24.9	170.8
Balance sheet information			
Cash and cash equivalents	301.3	61.6	92.4
Net asset value (Note 1)	1,305.6	778.7	978.0
Net debt (Note 1)	-301.3	15.7	32.2
Share information			
Earnings per share, weighted average before dilution (SEK)	-0.1	-0.1	1.0
Earnings per share, weighted average after dilution (SEK)	-0.1	-0.1	1.0
Net asset value per share (SEK) (Note 1)	4.8	4.4	5.6
Equity per share (SEK) (Note 1)	4.8	4.4	5.5
Share price, last trading day in the reporting period (SEK)	3.4	1.8	5.3
Portfolio information			
Investments in portfolio companies	11.2	3.3	20.7
Of which investments not affecting cash flow	0.2	0.4	0.2
Portfolio companies at fair value through profit or loss	944.1	758.1	950.2

Financial Development for the Investment Entity in 2022

Investments (comparable numbers 2021)

Investments in the portfolio in the first quarter 2022 by external investors and Karolinska Development amounted to SEK 33.2 (9.5) million, whereof 66% (65%) by external investors.

Karolinska Development invested during the first quarter SEK 11.2 (3.3) million, of which SEK 11.0 (3.3) million was cash investments. Investments were made in AnaCardio SEK 11.2 million. Non-cash investments (accrued interest on loans) amounted to SEK 0.2 (0.4) million.

Investments by external investors in the portfolio companies during the first quarter amounted to SEK 22.0 (6.2) million and were made in AnaCardio.

Portfolio Fair Value

Fair Value of the portfolio companies owned directly by Karolinska Development increased by SEK 1.1 million during the first quarter 2022. The main reason for the increase in fair value was the investment in AnaCardio with SEK 11,2 million but was reduced with the downturn in share price in the listed holdings of Modus Therapeutics and OssDsign.

Fair Value of the portfolio companies owned indirectly via KDev Investments decreased by SEK 14.8 million during the first quarter 2022. The main reasons for the decrease in Fair value of the portfolio companies was the downturn in share price in the listed holding Aprea Therapeutics.

Total Fair Value from portfolio companies owned directly by Karolinska Development and indirectly via KDev Investments decreased by SEK 13.7 million in the first quarter 2022.

As a consequence of the decrease in Fair Value of the part of the portfolio owned via KDev Investments, the potential distribution to Rosetta Capital decreased by SEK 7.6 million, resulting in Net Portfolio Fair Value decreasing by SEK 6.1 million in the first quarter 2022.

SEKm	31 Mar 2022	31 Dec 2021	Q1 2022 vs Q4 2021
Karolinska Development Portfolio Fair Value (unlisted companies)	663.3	652.4	10.9
Karolinska Development Portfolio Fair Value (listed companies)	64.1	73.9	-9.8
KDev Investments Portfolio Fair Value	552.0	566.8	-14.8
Total Portfolio Fair Value	1,279.4	1,293.1	-13.7
Potential distribution to Rosetta Capital of fair value of KDev Investments	-335.3	-342.9	7.6
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	944.1	950.2	-6.1

Profit development 2022 (comparable numbers 2021)

During the first quarter 2022, Karolinska Development's revenue amounted to SEK 0.6 (0.6) million and consists primarily of services provided to portfolio companies.

Change in fair value of shares in portfolio companies of in total SEK -17.2 (-15.5) million includes the difference between the change in Net Portfolio Fair Value during the first quarter 2022 with SEK -6.1 million and the investment in portfolio company of SEK 11.2 million. Change in fair value of other financial assets and liabilities amounted to SEK -0.2 (-1.5) million and are the consequence of changes in valuation of earn-out deals.

During the first quarter 2022 other expenses amounted to SEK 1.7 (1.9) million and personnel costs amounted to SEK 9.7 (5.4) million. The main reason for the increase in personnel costs compared to the first quarter 2021 is the outcome of bonus scheme and strengthen the personnel team during the first quarter of 2022.

The operating profit/loss in the first quarter 2022 amounted to SEK -28.3 million compared to SEK -23.9 million in the first quarter 2021.

The financial net during the first quarter 2022 amounted to SEK -0.9 compared to SEK -1.0 million in the first quarter of 2021.

The Investment Entity's Net profit/loss amounted to SEK -29.2 (-24.9) million in the first quarter 2022.

Financial position

The Investment Entity's equity to total assets ratio amounted to 99% on 31 March 2022, compared to 90% on 31 March 2021.

The investment company's equity on March 31, 2022, amounted to SEK 1,300.3 million, compared to SEK 971.1 million on December 31, 2021. The increase is a consequence of the rights issue which was completed during the quarter, and which provided the company with SEK 358.6 million in equity, reduced by the profit for the period of SEK -29.2 million for the first quarter of 2022.

The company has no interest-bearing liabilities as of March 31, 2022 (SEK 77.3 million as of March 31, 2021). Interest-bearing liabilities, bridge loans and accrued interest, were converted in the rights issue which was completed during the quarter.

After paying operational costs and investments for the first quarter 2022, cash and cash equivalents (including short term investments) amounted to SEK 301.3 million on 31 March 2022 compared to SEK 61.6 million on 31 March 2021. Net debt (negative net debt/ net cash) amounted to SEK -301.3 million on 31 March 2022 compared to the net debt of SEK 15.7 million on 31 March 2021.

The company is going concern. The company's ability to continue operations (going concern) was strengthened not only with the initial payments from the sale of Forendo Pharma which was received in December 2021 but also with the rights issue carried out in February 2022. The company's long-term financial situation has been strengthened. The report is prepared on the basis of the assumption of continued operation.

Financial Development – Parent Company

The Parent Company refers to Karolinska Development AB (comparable numbers 2021).

During the first quarter 2022, the Parent Company's Net profit/loss amounted to SEK -29.2 (-24.9) million.

The rights issue carried out during the first quarter of 2022 led to an increase in equity of SEK 358.5 million but decreased with a profit/ loss of SEK -29.2 million for the period, a total of SEK 329.3 million. The equity increased from SEK 971.1 million as of 31 December 2021 to SEK 1,300.4 million 31 March 2022.

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 31 March 2022 was SEK 3.44, and the market capitalization amounted to SEK 930 million.

The share capital of Karolinska Development on 31 March 2022 amounted to SEK 2.7 million divided into 2,555,261 A shares, each with ten votes (25,552,610 votes) and 267,522,333 B shares, each with one vote (267,522,333 votes). The total number of shares and votes in Karolinska Development on 31 March 2022 amounted to 270,077,594 shares and 293,074,943 votes.

Ownership

On March 31, 2022, Karolinska Development had 18,964 shareholders.

Shareholder	A-Shares	B-Shares	Cap %	Vote %
invoX Pharma Ltd	0	128,736,384	47.67%	43.93%
Worldwide International Investments Ltd	0	28,007,077	10.37%	9.56%
Swedbank Robur Microcap fond	0	8,750,000	3.24%	2.99%
Stift För Främjande & Utveckling	2,555,261	1,755,818	1.60%	9.32%
Östersjöstiftelsen	0	3,889,166	1.44%	1.33%
Nyenburgh Holding B.V.	0	2,580,000	0.96%	0.88%
Coastal Investment Management LLC	0	2,470,541	0.91%	0.84%
Handelsbanken fonder	0	2,386,081	0.88%	0.81%
SEB Investment Management	0	1,379,906	0.51%	0.47%
PSG Capital AB	0	1,213,672	0.45%	0.41%
Sum Top 10 Shareholders	2,555,261	181,168,645	68.03%	70.54%
Sum Other Shareholders	0	86,353,688	31.97%	29.46%
Sum All Shareholders	2,555,261	267,522,333	100.00%	100.00%

Information on Risks and Uncertainties

Investment Entity and Parent Company

Financial risks

Russia's invasion of Ukraine and the coronavirus's global spread affects the economy and society as a whole, including Karolinska Development and its portfolio companies. The value of listed companies can decline, delays in clinical trial programs may occur and the opportunities for refinancing can be hampered. The Board monitors the evolvement of the crises closely and Karolinska Development is working intensively to minimize the impact on the value of our investments and continues with different financing alternatives to secure the long-term capital requirement and thereby increase the degree of strategic and operational headroom for the future. After the initial payment from the sale of Forendo Pharma which was received in December 2021 and the rights issue carried out in February 2022 the company's long-term financial situation has been strengthened.

For a detailed description of other risks and uncertainties, see the Annual report 2021.

Signing of the report

Solna, 29 April 2022

Viktor Drvota
CEO

This report has not been reviewed by the Company's auditors.

Dates for Publication of Financial Information

Annual meeting 2022	12 May 2022
Interim Report January – June 2022	19 August 2022
Interim Report January – September 2022	18 November 2022

Karolinska Development is required by law to publish the information in this interim report. The information was published on 29 April 2022.

This interim report, together with additional information, is available on Karolinska Development's website: 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	2022 Jan-Mar	2021 Jan-Mar	2021 Full-year
Revenue		590	629	2,170
Change in fair value of shares in portfolio companies	2,3	-17,178	-15,518	223,203
Change in fair value of other financial assets and liabilities		-166	-1,534	-33,891
Other expenses		-1,700	-1,860	-6,887
Personnel costs		-9,696	-5,442	-23,205
Depreciation of right-of-use assets		-173	-173	-690
Operating profit/loss		-28,323	-23,898	160,700
Financial net		-905	-990	10,119
Profit/loss before tax		-29,228	-24,888	170,819
Taxes		-	-	-
NET PROFIT/LOSS FOR THE PERIOD		-29,228	-24,888	170,819

Condensed statement of comprehensive income for the Investment Entity

SEK 000	Note	2022 Jan-Mar	2021 Jan-Mar	2021 Full-year
Net profit/loss for the period		-29,228	-24,888	170,819
Total comprehensive income/loss for the period		-29,228	-24,888	170,819

Earnings per share for the Investment Entity

SEK	Note	2022 Jan-Mar	2021 Jan-Mar	2021 Full-year
Earnings per share, weighted average before dilution		-0.13	-0.14	0.97
Number of shares, weighted average before dilution		219,480,144	175,421,124	175,421,124
Earnings per share, weighted average after dilution		-0.13	-0.14	0.97
Number of shares, weighted average after dilution		219,480,144	175,421,124	175,421,124

Condensed balance sheet for the Investment Entity

SEK 000	Note	31 Mar 2022	31 Mar 2021	31 Dec 2021
ASSETS				
Tangible assets				
Right-of-use assets		1,207	1,207	690
Financial assets				
Shares in portfolio companies at fair value through profit or loss	2,3	944,143	758,113	950,170
Other financial assets	4	61,151	0	61,799
Total non-current assets		1,006,501	759,320	1,012,659
Current assets				
Accounts receivable		-	3	-
Receivables from group company		-	80	-
Receivables from portfolio companies		1,036	1,143	505
Other financial assets		-	39,996	-
Other current receivables		856	857	768
Prepaid expenses and accrued income		982	804	2,940
Short-term investments, at fair value through profit or loss		79,765	-	50,005
Cash and cash equivalents		221,528	61,573	42,398
Total current assets		304,167	104,456	96,616
TOTAL ASSETS		1,310,668	863,776	1,109,275
EQUITY AND LIABILITIES				
Total equity		1,300,332	775,400	971,086
Long-term liabilities				
Long-term liabilities to related parties	5	-	77,264	-
Total long-term liabilities		0	77,264	0
Current liabilities				
Current interest liabilities to related parties	5	-	-	124,603
Other financial liabilities		952	3,706	1,756
Accounts payable		758	851	1,674
Liability to make lease payment		1,257	1,207	732
Other current liabilities		1,409	1,205	2,156
Accrued expenses and prepaid income		5,960	4,133	7,268
Total current liabilities		10,336	11,102	138,189
Total liabilities		10,336	88,366	138,189
TOTAL EQUITY AND LIABILITIES		1,310,668	863,766	1,109,275

Condensed statement of changes in the Investment Entity's equity

SEK 000	Not	31 Mar 2022	31 Mar 2021	31 Dec 2021
Opening balance, equity		971,086	800,267	800,267
Changes during the period				
Share capital, rights issue		944	-	-
Prospectus costs, rights issue		-19,175	-	-
Share premium, rights issue		376,705	21	-
Net profit/ loss for the period		-29,228	-24,888	170,819
Closing balance, equity				
Share capital		2,701	1,757	1,757
Share premium		2,735,903	2,378,373	2,378,373
Retained earnings		-1,438,272	-1,604,730	-1,409,044
Closing balance, equity		1,300,332	775,400	971,086

Condensed statement of cash flows for the Investment Entity

SEK 000	Note	2022 Jan-Mar	2021 Jan-Mar
Operating activities			
Operating profit/loss		-28,323	-23,898
Adjustments for items not affecting cash flow			
Depreciation		173	173
Change in fair value		17,344	17,052
Other items		-492	-
Cash flow from operating activities before changes in working capital and operating investments		-11,298	-6,673
Cash flow from changes in working capital			
Increase (-)/Decrease (+) in operating receivables		-1,008	-1,030
Increase (+)/Decrease (-) in operating liabilities		-2,797	-1,158
Cash flow from operating activities		-15,103	-8,861
Investment activities			
Part payment from earn-out deal		-324	-2,886
Acquisitions of shares in portfolio companies		-11,000	-2,370
Acquisitions of short-term investments ¹		-30,000	-
Cash flow from investment activities		-41,324	-5,256
Financing activities			
Cash from rights issue		254,911	-
Prospectus costs		-19,175	-
Amortization of lease liabilities		-179	-179
Cash flow from financing activities		235,557	-179
Cash flow for the period		179,130	-14,296
Cash and cash equivalents at the beginning of the year		42,398	75,869
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD		221,528	61,573

¹Surplus 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 not included in the statement of cash flows from operating activities. Cash and cash equivalents and short-term investments amounts to SEK 301.3 million at the end of the period.

Condensed income statement for the Parent Company

SEK 000	Note	2022 Jan-Mar	2021 Jan-Mar	2021 Full-year
Revenue		590	629	2,170
Change in fair value of shares in portfolio companies		-17,178	-15,518	223,203
Change in fair value of other financial assets and liabilities		-167	-1,534	-33,891
Other expenses		-1,878	-2,039	-7,601
Personnel costs		-9,696	-5,442	-23,205
Operating profit/loss		-28,329	-23,904	160,676
Financial net		-892	-976	10,164
Profit/loss before tax		-29,221	-24,880	170,840
Tax		-	-	-
NET PROFIT/LOSS FOR THE PERIOD		-29,221	-24,880	170,840

Condensed statement of comprehensive income for the Parent Company

SEK 000	Note	2022 Jan-Mar	2021 Jan-Mar	2021 Full-year
Net profit/loss for the period		-29,221	-24,880	170,840
Total comprehensive income/loss for the period		-29,221	-24,880	170,840

Condensed balance sheet for the Parent Company

SEK 000	Note	31 Mar 2022	31 Mar 2021	31 Dec 2021
ASSETS				
Financial non-current assets				
Shares in portfolio companies at fair value through profit or loss	2,3	944,143	758,113	950,170
Other financial assets	4	61,151	-	61,799
Total non-current assets		1,005,294	758,113	1,011,969
Current assets				
Accounts receivable		-	3	-
Receivables from group companies		-	80	-
Receivables from portfolio companies		1,036	1,143	505
Other financial assets		-	39,996	-
Other current receivables		856	857	768
Prepaid expenses and accrued income		982	804	2,940
Short-term investments at fair value through profit or loss		79,765	-	50,005
Cash and cash equivalents		221,528	61,573	42,398
Total current assets		304,167	104,456	96,616
TOTAL ASSETS		1,309,461	862,569	1,108,585
EQUITY AND LIABILITIES				
Total equity		1,300,381	775,408	971,128
Long-term liabilities				
Long-term liabilities to related parties	5	0	77,264	-
Total long-term liabilities		0	77,264	0
Current liabilities				
Current interest liabilities	5	0	-	124,603
Other financial liabilities		952	3,706	1,756
Accounts payable		758	851	1,674
Other current liabilities		1,409	1,207	2,156
Accrued expenses and prepaid income		5,961	4,133	7,268
Total current liabilities		9,080	9,897	137,457
Total liabilities		9,080	87,161	137,457
TOTAL EQUITY AND LIABILITIES		1,309,461	862,569	1,108,585

Condensed statement of changes in equity for the Parent Company

SEK 000	Not	31 Mar 2022	31 Mar 2021	31 Dec 2021
Opening balance, equity		971,128	800,287	800,287
Changes during the period				
Share capital, rights issue		944	-	-
Prospectus costs, rights issue		-19,175	-	-
Share premium reserve, rights issue		376,705	-	-
Net profit/ loss for the period		-29,221	-24,880	170,840
Closing balance, equity				
Share capital		2,701	1,757	1,757
Share premium reserve		2,735,903	2,378,373	2,378,373
Retained earnings		-1,438,223	-1,604,722	-1,409,002
Closing balance, equity		1,300,381	775,408	971,128

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.

New and revised accounting principles 2022

No new or revised IFRS standards or recommendations from IFRS Interpretations Committee has had significant impact on the Investment Entity.

Related party transactions

The bridge loans, including accrued interest, totalling SEK 124.9 million was converted into shares in Karolinska Development's rights issue in February 2022.

Definitions

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

Reporting period: January – March 2022.

Alternative Performance Measures

The Company presents certain financial measures in the interim 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.

rNPV: "risk-adjusted net present value" is a method to value risky future cash flows. rNPV is the standard valuation method in the drug development industry, where sufficient data exists to estimate success rates for all R&D phases.

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

Net debt: Interest-bearing liabilities (SEK 0.0 million) reduced with cash and cash equivalents (including short-term investments) (SEK 301.3 million).

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

Net asset value as of 31 March 2022:

<i>SEK 000</i>	Number of shares	Fair value	Part of Karolinska Developments' net asset value	percentage
			SEK per share ³	
Listed assets				
Modus Therapeutics	6,144,821	22,152	0.08	1.7%
OssDsign	5,812,638	41,967	0.16	3.2%
Total listed assets		64,119	0.24	4.9%
Unlisted assets				
AnaCardio		14,540	0.05	1.1%
Dilafor		12,014	0.04	0.9%
Svenska Vaccinfabriken Produktion		6,827	0.03	0.5%
Umecrine Cognition		623,048	2.31	47.7%
KCIF Co-Investment Fund KB		6,859	0.03	0.5%
KDev Investments ¹		216,736	0.80	16.6%
Total unlisted assets		880,024	3.26	67.4%
Net of other liabilities and debts²		361,492	1.34	27.7%
Total net asset value		1,305,635	4.84	100.0%

¹The company has both listed and unlisted assets.

² Includes SEK 301.3 million cash and cash equivalents (including short-term investments).

³ In relation to the number of shares outstanding (269,833,309) on the closing date.

NOTE 2 Shares in portfolio companies, at fair value through profit or loss

Change in fair value of portfolio companies

<i>SEK 000</i>	2022 Jan-Mar	2021 Jan-Mar	2021 Full-year
Result level 1			
Listed companies, realized	-	-	-433
Listed companies, unrealized	-9,801	-12,837	-27,159
Total level 1	-9,801	-12,837	-27,592
Result level 3			
Unlisted companies, realized	-249	-682	7,243
Unlisted companies, unrealized	-7,128	-1,999	243,552
Total level 3	-7,377	-2,681	250,795
Total	-17,178	-15,518	223,203

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

<i>SEK 000</i>	31 Mar 2022	31 Mar 2021	31 Dec 2021
Accumulated acquisition cost			
At the beginning of the year	950,170	770,320	770,320
Investments during the year	11,151	3,311	69,154
Sales during the year	-	-	-112,507
Changes in fair value in net profit/loss for the year	-17,178	-15,518	223,203
Closing balance	944,143	758,113	950,170

NOTE 3 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 31 March 2022

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	64,119	-	880,024	944,143
Other financial assets	-	-	61,151	61,151
Cash and cash equivalents and short-term investments	301,293	-	-	301,293
Total	365,412	0	941,175	1,306,587
Financial liabilities				
Other financial liabilities	-	-	952	952
Total	-	0	952	952

Fair value as of 31 March 2021

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	24,929	-	733,184	758,113
Other financial assets	-	-	39,996	39,996
Cash, cash equivalents and short-term investments	61,573	-	-	61,573
Total	86,502	0	773,180	859,682
Financial liabilities				
Other financial liabilities	-	-	3,706	3,706
Total	-	0	3,706	3,706

Fair value (level 3) as of 31 March 2022

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	876,250	61,799	1,756
Acquisitions	11,151	-	-
Compensations	-	-	-324
Gains and losses recognized through profit or loss	-7,377	-648	-480
Closing balance 31 March 2022	880,024	61,151	952
Realized gains and losses for the period included in profit or loss	-249	-	-
Unrealized gains and losses in profit or loss for the period included in profit or loss	-7,128	-648	480

Fair value (level 3) as of 31 March 2021

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	732,554	41,181	5,726
Acquisitions	3,311	-	-
Compensations	-	-	-2,370
Gains and losses recognized through profit or loss	-2,681	-1,185	350
Closing balance 31 March 2021	733,184	39,996	3,706
Realized gains and losses for the period included in profit or loss	-682	-	-
Unrealized gains and losses in profit or loss for the period included in profit or loss	-1,999	-1,185	350

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.

Shares in portfolio companies (Level 3) as of 31 March 2022

SEK000	Ownership	Fair value SEK000	Valuation model ¹
AnaCardio	20.9%	14,540	Last post money
Dilafor	0.7%	12,014	Last post money
Svenska Vaccinfabriken Produktion	30.8%	6,827	Last post money
Umecrine Cognition	72.6%	623,048	External valuation ²
KCIF Co-Investment Fund KB	26.0%	6,859	A combination of share price listed company and fair value of financial asset ³
KDev Investments	90.1%	216,736	A combination of last post money and share price listed company ⁴
Total level 3		880,024	

¹See The Annual Report 2021 Valuation of portfolio companies at fair value, for a description of valuation models.

²Risk adjusted external valuation by an independent valuation institute in December 2020. The external valuation resulted in an rNPV value which has been risk adjusted to reflect an assumed pricing in conjunction with an IPO and the need to secure development financing.

³KCIF Co-Investment Fund KB holds listed shares which are valued in accordance with the closing rate on the final trading day of the period and a financial asset, at fair value through profit or loss, attributable to earn-out in the sale of Forendo Pharma.

⁴KDev Investments AB holds both listed shares which are valued in accordance with the closing rate on the final trading day of the period and unlisted shares which are valued in accordance with the most recent transaction (post-money valuation). Dilafor, which is an unlisted company, accounts for 88% of the total fair value in KDev Investments.

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 335.3 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 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. Following dividends from KDev Investments during 2021 and 2022, all additional investments totalling SEK 43.3 million have been repaid to Rosetta Capital. In addition, SEK 1.5 million has been distributed, which reduce the first SEK 220 million in the waterfall structure. See also the annual report for 2021, note 17, for a description of the agreement with Rosetta Capital.

“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

SEK 000	31 Mar 2022	31 Mar 2021	31 Dec 2021
Karolinska Development Portfolio Fair Value (unlisted companies)	663,288	733,184	652,377
Karolinska Development Portfolio Fair Value (listed companies)	64,119	24,929	73,920
KDev Investments Portfolio Fair Value	552,010	173,674	566,807
Total Portfolio Fair Value	1,279,417	931,787	1,293,104
Potential distribution to Rosetta Capital of fair value of KDev Investments	-335,274	-173,674	-342,934
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	944,143	758,113	950,170

NOTE 4 Other financial assets

SEK000	31 Mar 2022	31 Mar 2021	31 Dec 2021
Other financial assets, non-current			
Earn-out agreement Forendo Pharma ¹	61,151	-	61,799
Earn-out agreement Oncopeptides ²	0	-	0
Total	61,151	0	61,799
Other financial assets, current			
Earn-out agreement Oncopeptides ²	-	39,996	40,459
Total	-	39,996	40,459

¹Karolinska Development is entitled to earn-out payments according to the agreement with Organon regarding the sale of Forendo Pharma, see below.

²Karolinska Development is entitled to a 5% earn-out payment according to an agreement with Industrifonden. The earn-out payment is received when Industrifonden divests its holding in Oncopeptides. The value is estimated as of the balance sheet date at SEK 0.0 million. Maximum residual value amounts to KSEK 40,459.

Earn-out agreement Forendo Pharma

Karolinska Development estimates the risk-adjusted net present value (rNPV) of future cash flows (earn-outs), after the initial payment in December 2021, to SEK 61,2 million. The earn-outs are expected to be paid during the period 2024–2034, and renewed rNPV valuations will be performed continuously. Forendo Pharma’s previously shareholders are entitled to additional future payments totalling USD 870 million (approximate SEK 7,560 million) upon the achievement of certain development, registration and commercial milestones pertaining to Forendo Pharma’s drug candidates.

NOTE 5 Liabilities to related parties

SEK 000	31 Mar 2022	31 Mar 2021	31 Dec 2021
Current interest liabilities			
invoX Pharma Ltd ¹	-	70,000	70,000
invoX Pharma Ltd ²	-	-	42,500
Accrued interest Sino Biopharmaceutical	-	7,264	12,103
Total	-	77,264	124,603

The bridge loans and accrued interest, in total SEK 124.9 million, was converted into shares in Karolinska Development's rights issue in February 2022.

Related parties refer to the main owner invoX Pharma Ltd, which in turn is a wholly owned subsidiary of the former main owner Sino Biopharmaceutical Ltd.

NOTE 6 Pledge assets and contingent liabilities

SEK 000	31 Mar 2022	31 Mar 2021	31 Dec 2021
Pledge assets			
Capital Adequacy Guarantee for Portfolio company	-	2,000	-
Contingent liabilities			
Investment agreement in portfolio company	12,927	-	12,927
Summa	12,927	2,000	12,927