KAROLINSKA DEVELOPMENT

INTERIM REPORT
Jan – Jun 2022

Q2

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

- The net profit/loss for the second quarter was SEK -22.3 million (SEK 216.4 million in the second quarter of 2021). Earnings per share totalled SEK -0.08. (SEK 1.23 in the second quarter of 2021). Net profit/loss for the period January – June 2022 amounted to SEK -51.5 (191.5) million.
- The result of the Change in fair value of shares in portfolio companies for the second quarter amounted to SEK -23.9 million (SEK 227,9 in the second quarter of 2021). The result is largely due to a downturn in share price in the listed holdings which is owned directly and indirectly via KDevl Investments. The result of the Change in fair value of shares in portfolio companies for the period January – June 2022 amounted to SEK -41.1 (212.4) million.
- The total fair value of the portfolio was SEK 1,274.2 million at the end of June 2022, corresponding to a decrease of SEK 5.3 million from SEK 1,279.4 million at the end of the previous quarter. The net portfolio fair value at that time was SEK 941.7 million, corresponding to a decrease of SEK 2.5 million from SEK 944.1 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 1,284.8 million, per share SEK 4.8, at the end of June 2022 (SEK 995.5 million, per share SEK 5.7 at the end of June 2021).
- Net sales totalled SEK 0.6 million during the second quarter of 2022 (SEK 0.6 million during the second quarter of 2021). Net sales for the period January – June 2022 totalled SEK 1.2 (1.2) million.
- Karolinska Development invested a total of SEK 21.7 million in portfolio companies during the second quarter of 2022. Second quarter investments in portfolio companies by Karolinska Development and other specialised life sciences investors totalled SEK 116.2 million.
- Cash and cash equivalents (including short-term investments) decreased by SEK 27.4 million during the second quarter, totalling SEK 273.9 million on 30 June 2022.

Significant events during the second quarter

- 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 began on Friday, April 29 on Nasdaq First North Growth Market (April 2022).
- The portfolio company Biosergen is preparing a Phase 2 clinical trial of the company's lead compound BSG005, targeting systemic fungal infection from mucormycosis. The Phase 2 clinical trial will be conducted in India, where an epidemic of opportunistic mucormycosis has erupted (May 2022).
- At its Annual General Meeting, Karolinska Development voted to, among other things, to adopt the profit and loss statement and the balance sheet and the consolidated profit and loss statement and the consolidated balance sheet, to approve the allocation of the result, proposed by the Board of Directors and the CEO and to re-elect Björn Cochlovius, Philip Duong, Anna Lefevre Sköldebrand, Ben Toogood and Theresa Tse to its Board of Directors, and to elect Björn Cochlovius Chairman of the Board (May 2022).
- The portfolio company Aprea Therapeutics has completed the acquisition of the privately-held US-based biotechnology company Atrin Pharmaceuticals Inc. Aprea Therapeutics will now prioritize the development of Atrin Pharmaceuticals' drug candidates, which are being developed to fight cancer by affecting the proteins involved in the ability of tumors to repair damage to their DNA (May 2022).
- The portfolio company Umecrine Cognition has submitted a clinical trial application (CTA) to the Hungarian regulatory body OGÝEI for approval to initiate a Phase 2 clinical trial of its drug candidate golexanolone in patients suffering from primary biliary cholangitis. The study is planned to be conducted at several European clinical trial centers (May 2022).
- Karolinska Development announced that the company has agreed to invest SEK 20 million in PharmNovo AB, which is developing a novel drug for nerve pain, a difficult-to-treat form of pain that often develops into a chronic condition. The drug candidate PN6047 from PharmNovo has shown compelling efficacy in well-established preclinical disease models, and a first clinical trial is planned to start in late 2022. The estimated market value for nerve pain drugs is nearly $6 billion and is expected to continue growing (June 2022).
- The portfolio company Promimic has presented preclinical results showing that the company's HAnano Surface coating technology reduces the risk of adhesion by common pathogenic bacteria by up to 60% (June 2022).
- The portfolio company Svenska Vaccinfabriken has presented results from a preclinical study indicating that the company's candidate therapeutic vaccine SVF-001 has potential to elicit an immune response in a disease model of chronic hepatitis B. The results were presented on June 25 at the EASL International Liver CongressTM 2022 (June 2022).

Significant post-period events

- Karolinska Development has completed the previously announced investment in PharmNovo, thereby including it among its portfolio companies. As of July 4, Karolinska Development's investment portfolio consists of ten companies (July 2022).
- The portfolio company Promimic announced that they and the US-based company Danco Medical formed a joint venture for the Processing of Medical Implants in the US market. The strategic initiative is expected to have a major impact on Promimic's growth and profitability as early as next year (July 2022).
- The Board of Directors of the portfolio company Umecrine Cognition has recruited Anders Karlsson as the new CEO. He succeeds Magnus Doverskog, who moves on to a position as Chief Scientific Officer in the company. The recruitment aims to strengthen and broaden the management team with additional competence in business development and commercialization for the next phase in the company's development. Anders Karlsson will take over as CEO on 1st of September 2022 (August 2022).

Viktor Drvota, CEO of Karolinska Development, comments:

"Our portfolio companies' dedicated work, clear progress, and ability to identify strategically advantageous partnerships and acquisition opportunities are impressive, and bode well for ongoing value creation."

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Chief Executive's Report

Karolinska Development's ability to support the existing portfolio companies in their value creation work and, at the same time, identify interesting new investment opportunities are important tools in our business strategy strategy toolbox. Several of our portfolio companies have reported further progress over the past quarter, not least in the form of strategic initiatives with the potential to strengthen their positions significantly from a longer-term perspective. Our systematic process of identifying attractive opportunities for new investments in innovative life science projects has, at the same time, recently enabled us to welcome our tenth portfolio company.

New investment in ground-breaking pharmaceutical project for the treatment of neuropathic pain

In early June 2022, Karolinska Development entered into a new agreement to invest SEK 20 million in PharmNovo AB, which is developing a totally new type of pharmaceutical for the treatment of neuropathic pain – a difficult-to-treat condition with an enormous need for better treatments. Around 10% of the world's population currently suffers from neuropathic pain, which can result in a significantly reduced quality of life for the individual and substantial costs to society. The pain is often chronic and occurs as a result of nerve damage due to conditions such as type 2 diabetes, shingles, trauma, and cancer. The market for pharmaceutical treatments of neuropathic pain is estimated to be https://karolinskadevelopmentab.sharepoint.com/:w:/g/EYjLbWjwwTxBt5xOMUa-YUMBbUA-vs2K9uXGhzcX0x2wGwaround USD 6 billion and is continuing to grow, but the treatments currently offered are not always sufficiently effective and are, furthermore, often associated with severe side effects and the risk of dependency. PharmNovo's PN6047 candidate drug has shown convincing effects in well-established, preclinical disease models and an initial clinical study is scheduled to begin in late 2022. The candidate drug is expected, based on its high selectivity, to result in a better effectiveness and safety profile than those of existing treatments. The risk of developing dependency is also deemed to be lower.

Two ongoing phase 2 studies of Dilafors' tafoxiparin candidate drug

Dilafor is developing its tafoxiparin candidate drug in two indication areas with a substantial need for improved treatments. The positive outcome of a phase 2b study in women at risk of experiencing protracted labour has resulted in the study now being extended and expanded with two lower doses of tafoxiparin. Approximately one quarter of all pregnant women require labour induction, but the induction fails in over 50% of cases with a resultant ensuing risk of emergency caesarean sections and serious complications. A phase 2a study of the candidate drug is also being conducted in women diagnosed with preeclampsia – a condition that affects 5-8% of all pregnant women and which can cause serious complications affecting both the mother and the unborn child. We are very much looking forward to the results of these two studies, which could have a significant effect on the valuation of the portfolio company.

Strategic acquisition enhances outlook for Aprea Therapeutics

Our portfolio company, Aprea Therapeutics, acquired the privately owned US biotech company, Atrin Pharmaceuticals Inc., during the past quarter. Aprea Therapeutics will now prioritise the development of Atrin Pharmaceuticals' candidate drugs which are being developed to combat various types of cancer by affecting the proteins involved in the ability of tumours to repair damage to their DNA. With the acquisition of Atrin Pharmaceuticals' portfolio of pharmaceutical projects, Aprea Therapeutics has shifted its primary focus to the development of ATRN-119, a candidate drug that inhibits an important signalling pathway in DNA damage repair. ATRN-119 will soon be evaluated in clinical phase 1/2a studies in the treatment of

malignant solid tumours, both as monotherapy and in combination with standard treatment. We view this strategic acquisition positively and believe that it will enhance the outlook for Aprea Therapeutics.

Promimic intensifies collaboration with US-based Danco Medical

At the end of June, Promimic presented new preclinical data showing that the company's unique HA^{nano} Surface coating technology reduces bacterial growth on implants. After the period end, Promimic established a joint venture company with their American partner, Danco Medical, with the aim of strengthening Promimic's customer offering in the USA, and the company believes that this strategic initiative will have a major impact on Promimic's growth and profitability as early as next year. HA^{nano} Surface is a unique, nanometre-thin surface treatment that aims to improve the anchorage and healing of orthopaedic and dental implants into bone tissue. The technology is well established and has so far been applied to over 700,000 implants in clinical use around the world.

Ten portfolio companies with the potential to improve life for a long list of patient groups

Karolinska Development is now, after the investment in PharmNovo, which was completed on 4 July, the joint owner of ten life science companies with a high level of innovation and substantial commercial potential. Activity levels have also continued to be high in other portfolio companies, alongside the progress described above: Umecrine Cognition is preparing a clinical phase 2 study of golexanolone in patients with primary biliary cholangitis, and OssDsign has recently reported that over 100 patients have now been treated with OssDsign Catalyst in the USA and that the launch of OssDsign Cranial PSI has begun in Japan. Our portfolio companies' dedicated work, clear progress, and ability to identify strategically advantageous partnerships and acquisition opportunities are impressive, and bode well for ongoing value creation.

Solna, 19 August 2022

Viktor Drvota
Chief Executive Officer

Portfolio Companies

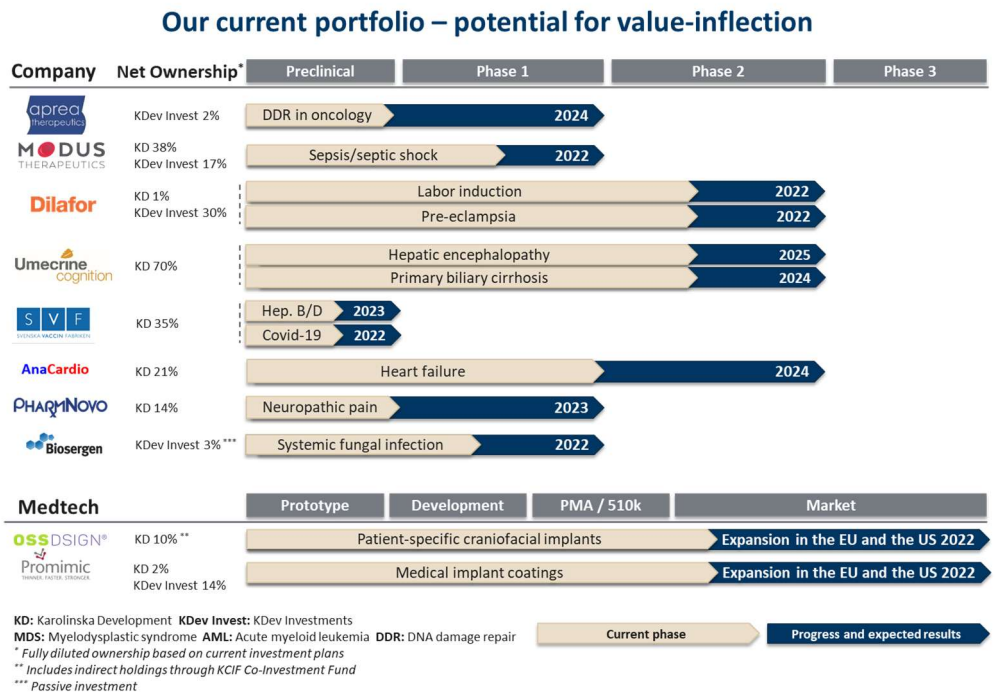
High potential for continued value generation

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 ten companies focused on developing innovative treatment methods for diseases that are life-threatening or involve a risk of severe disabilities and other medical conditions. Eight of the portfolio companies have drug candidates in ongoing or planned 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.



Aprea Therapeutics Inc

Combats cancer by targeting tumours' ability to repair damage to their DNA

Aprea Therapeutics (Boston, USA and Stockholm, Sweden) is focused on developing and commercializing novel drugs to combat various types of cancer by affecting the proteins involved in the ability of tumours to repair damage to their DNA.

During the second quarter of 2022, Aprea completed the acquisition of Atrin Pharmaceuticals, a biopharmaceutical company focused on developing novel cancer therapeutics targeting proteins in the DNA damage response (DDR).

With the acquisition of the Atrin programs, the company's focus is now on development of the ATR inhibitor ATRN-119, which will be studied as both a monotherapy and in combination with standard of care in Phase 1/2a clinical trials in solid tumor malignancies. ATRN-119 is an orally-bioavailable, highly potent and selective small molecule inhibitor of ATR, a protein with key roles in response to DNA damage. ATRN-119 has received FDA approval for a first-in-human clinical trial for cancer patients and this trial is expected to begin in the third quarter of 2022.

Aprea also is developing ATRN-W1051, an orally-bioavailable, highly potent and selective small molecule inhibitor of WEE1, a key regulator of multiple phases of the cell cycle. ATRN-W1051 is currently in preclinical development, and the company anticipates commencing studies enabling application for first-in-human clinical trials in the second half of 2022.

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

Project (First-in class)
Eprenetapopt (APR-246)
ATR inhibitor ATRN-119

Primary indication
Myelodysplastic syndrome (MDS)
Acute myeloid leukaemia (AML)
Solid tumor malignancies

Development phase
Preclinical

Holding in company*
KDev Investments 2%

Other investors
Vanguard Group
Kennedy Capital Management
Renaissance Technologies
Morgan Stanley
BlackRock
Geode Capital Management

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

The market

Targeting DNA Damage Repair, several commercially available PARP inhibitors induced substantial objective response in patients with DNA repair defects and received FDA Breakthrough Designation for several cancer indications. The notable commercial success of these PARP inhibitors has made DNA Damage and Response a clinically and commercially validated therapeutic approach. Targeting ATR represents an emerging strategy to treat a broad spectrum of cancers, most notably those that currently lack fully effective treatments. There are currently three ATR-inhibitors in Phase 1/2 clinical trials, developed by Merck KGaA, AstraZeneca and Bayer.

Recent progress

- In May 2022, Aprea announced the acquisition of Atrin Pharmaceuticals.
- Following the Annual Meeting of Stockholders on July 28, Christian S. Schade transitioned to the role of Executive Chairman of the Board of Directors and Oren Gilad assumed the role of CEO.

MODUS THERAPEUTICS

Project (First-in-class)
Sevuparin

Primary indication
Sepsis/Septic shock

Development phase
Phase 1

Holding in company*
Karolinska Development 38%
KDev Investments 17%

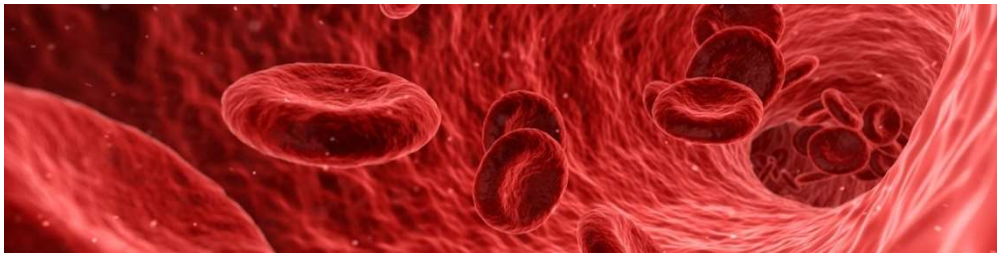
Other investors
The Foundation for Baltic and East European Studies
Ergomed
Praktikerinvest

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 lacks 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 May 2022, Karolinska Development provided bridge financing of up to SEK 11.5 million to maintain the momentum in the clinical development of the company's lead asset.

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 Therpeutics will also, together with Imperial College in London, evaluate the effect of sevuparin in patients with severe malaria.

Ongoing effects of the Covid-19 pandemic throughout spring of 2022 have slowed down enrolment for the phase 1b trial, causing a delay to the anticipated timelines. The company now expects to finalize recruitment by end Q3.

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 December 2021, the first subject in the phase 1b sevuparin study was dosed.
- Ongoing effects of the Covid-19 pandemic have slowed down enrolment for the Phase 1b trial, expecting to finalize recruitment by end of Q3 2022.
- In May 2022, Karolinska Development provided bridge financing of up to SEK 11.5 million to ensure that momentum in the company's clinical development is sustained.

Expected milestones

- Ongoing phase 1b LPS challenge study, with estimated completion date by end of 2022.
- Phase 2a trial in patients with sepsis with an estimated start before end of 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 labor 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 labor. The study included 170 first-time mothers with immature cervixes, which are treated to ripen the cervix and thereby facilitate the onset of labor. 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 labor 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 labor, 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.

Umecrine cognition

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

Primary indications
Hepatic encephalopathy
Primary biliary cholangitis

Development phase
Phase 2a

Holding in company*
Karolinska Development 70%

Other investors
Norrlandsfonden
Fort Knox Förvaring AB
PartnerInvest

Origin
Umeå University

More information
umecrinecognition.com

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

Deal values for similar projects

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

Umecrine Cognition AB

A new approach to treating hepatic encephalopathy

Umecrine 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.

Umecrine 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.

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

- 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).
- Umecrine Cognition successfully conducted pre-IND meeting with FDA (March 2022).
- The company has submitted a clinical trial application for a Phase 2 study of golexanolone in patients with PBC. The clinical trial is planned to be performed at multiple medical centers in several European countries, and the first submission was made to the Hungarian regulatory body OGYÉI (May 2022).
- Anders Karlsson recruited as new CEO and Magnus Doverskog remains as CSO (Aug 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 Coronasviruses. 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.

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.
- The company presents preclinical study data indicating that the candidate therapeutic vaccine SVF-001 has the potential to elicit an immune response in a preclinical disease model of chronic hepatitis B at the EASL International Liver Congress™ in June 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*

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, at the same time, one of the major issues with existing pharmaceuticals is that they are not designed for long-term treatment.

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 AnaCardio in June 2021 and participated in the convertible loan of SEK 33 million raised by the company by beginning of 2022.

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

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

- Start of phase 1b/2a study.

PHARMNOVO

Project (First-in-class)
PN6047

Primary indication
Allodynia/ Hyperalgesia

Development phase
Preclinical

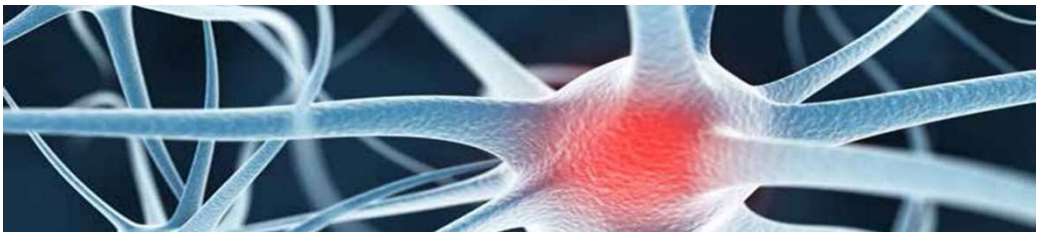
Holding in company'
Karolinska Development 14%

Origin
Start-up

More information
pharmnovo.com

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

PharmNovo AB



Innovative drug project for the treatment of nerve pain

PharmNovo (Lund, Sweden) is developing innovative drugs for the treatment of nerve pain (neuropathic pain). Neuropathic pain is one of the most prevalent types of chronic pain and affects up to 10per cent of the population. Common causes include nerve damage from type 2 diabetes, shingles and can also arise from trauma (including surgery), cancer and cancer treatments. PharmNovo's lead candite, PN6047, focuses on allodynia and hyperalgesia, two common forms of nerve pain, affecting 15-20 per cent of neuropathic pain patients. Allodynia is pain due to a stimulus that does not usually provoke pain, while hyperalgesia is increased pain from a stimulus that usually provokes pain. These types of pain have highly detrimental effects on the quality of life; it impairs everyday activities and social functioning and has harmful physical effects (e.g., due to lack of mobility, energy and appetite, sleep deprivation etc.). Current treatment options are deemed ineffective and are also associated with significant side-effects; particularly cardiovascular and suicide risks with antidepressants and drug abuse potential with gabapentinoids or conventional opioids.

PharmNovo's novel drug candidate, based on a drug development project at AstraZeneca targets a different receptor than conventional opioid drugs; the delta opioid receptor, and thus reduces chronic pain without any of the unwanted effects of currently marketed opioids (constipation, physical dependence and, potentially, fatal respiratory depression). The company is currently at a preclinical stage, where PN6047 has been tested in various mechanistic in vitro models and in animal models for neuropathic pain states, as well as for short term tolerance and dependence liability. In addition, initial safety pharmacology, pharmacokinetics, and regulatory toxicology studies have been performed. The first human studies are planned to start later this year.

Deal values for similar projects

- USD 940 million ACADIA Pharmaceuticals (acquirer) & CerSci Therapeutics (acquired), 2020
- USD 312 million Novartis (acquirer) & Spinifex Pharmaceuticals (acquired), 2015

The market

The need for improved treatments for nerve pain, is enormous. Around 10 per cent of the world's population currently suffers from conditions characterized by this form of pain, leading to a severely reduced quality of life for the individual and substantial costs for society – estimated at nearly €440 billion annually in Europe alone. The estimated market value for nerve pain drugs is nearly $6 billion and the market for allodynia alone is around $1.25 billion and is expected to continue growing driven by an aging population and increased cancer survival.

Recent progress

- A Clinical Trial Application (CTA) has been submitted to the Swedish Medical Products Agency (MPA) as well as to the ethics committee for a phase 1 First in Human (FIH) clinical trial with the lead candidate PN6047 (May 2022).
- Raised SEK 67 million in a new share issue including investments from Karolinska Development. The new capital will be used to finance drug substance manufacture, implement a clinical phase 1 trial of the drug candidate PN6047, and continue the company's development (June 2022).

Expected milestones

- Completion of preparations for phase 1 study.
- Start of phase 1 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

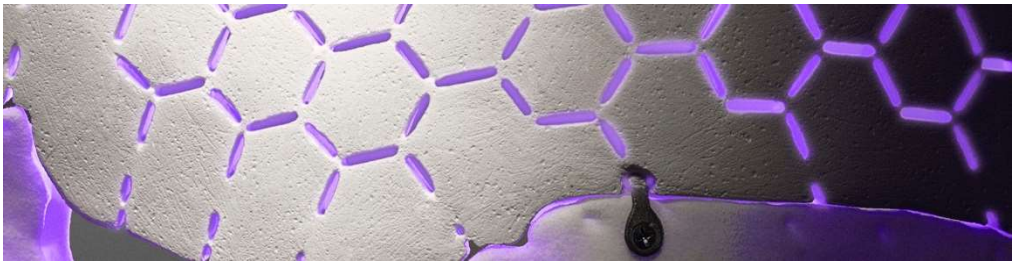
** Fully-diluted ownership based on current investment plans*

*** 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 explanations 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

- 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).
- OssDsign's clinical study TOP FUSION is now fully enrolled and patient follow-up will continue over 24 months (April 2022).
- The company has established a Strategic Surgeon Advisory Board in the US to assist with guidance and advice on strategic matters (June 2022).

Expected milestones

- Financing for continued roll-out of the products internationally.

Promimic
THINNER. FASTER. STRONGER.

Project
HA^{nano} Surface

Primary indication
Implant surface coatings

Development phase
Marketed

Holding in company*
Karolinska Development 2%

KDev Investments 14%

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

- Eight products with Promimic's technology were approved by the FDA in 2021.
- Promimic has successfully listed the company's share on Nasdaq First North Growth Market in a fully subscribed IPO offering. The shares are traded under the short name "PRO" (April 2022).
- New preclinical results showing that the company's HA^{nano} Surface coating technology reduces the risk of adhesion by common pathogenic bacteria by up to 60% (June 2022).
- Promimic and Danco Medical establish nano processing, inc. to better serve the US market. (July 2022)

Expected milestones

- During 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.

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 Apr-Jun	2021 Apr-Jun	2022 Jan-Jun	2021 Jan-Jun	2021 Full-year
Condensed income statement					
Change in fair value of shares in portfolio companies	-23.9	227.9	-41.1	212.4	223.2
Net profit/loss	-22.3	216.4	-51.5	191.5	170.8
Balance sheet information					
Cash and cash equivalents	273.9	20.8	273.9	20.8	92.4
Net asset value (Note 1)	1,284.8	995.5	1,284.8	995.5	978.0
Net debt (Note 1)	-273.9	57.8	-273.9	57.8	32.2
Share information					
Earnings per share, weighted average before dilution (SEK)	-0.1	1.2	-0.2	1.1	1.0
Earnings per share, weighted average after dilution (SEK)	-0.1	1.2	-0.2	1.1	1.0
Net asset value per share (SEK) (Note 1)	4.8	5.7	4.8	5.7	5.6
Equity per share (SEK) (Note 1)	4.7	5.7	4.7	5.7	5.5
Share price, last trading day in the reporting period (SEK)	2.5	2.9	3.4	2.9	5.3
Portfolio information					
Investments in portfolio companies	21.7	44.8	32.8	48.1	20.7
Of which investments not affecting cash flow	0.2	10.4	0.4	10.8	0.2
Portfolio companies at fair value through profit or loss	941.7	1,030.8	941.7	1,030.8	950.2

Financial Development for the Investment Entity in 2022

Investments *(comparable numbers 2021)*

Investments in the portfolio in the second quarter 2022 by external investors and Karolinska Development amounted to SEK 116.2 (339.9) million, whereof 81% (87%) by external investors.

Karolinska Development invested during the second quarter SEK 21.7 (44.8) million, of which SEK 21.5 (34.4) million was cash investments. Investments were made in Dilafor SEK 12.9 million, Promimic SEK 5.0 million, Svenska Vaccinfabriken Produktion SEK 3.5 million and AnaCardio SEK 0.2 million. Non-cash investments (accrued interest on loans) amounted to SEK 0.2 (10.4) million.

Investments by external investors in the portfolio companies during the second quarter amounted to SEK 94.6 (295.2) million and were made in Dilafor, Promimic, Svenska Vaccinfabriken Produktion.

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

SEKm	Karolinska Development	External Investors	Total Invested Q1-Q2 2022
Dilafor	12.9	19.6	32.5
AnaCardio	11.4	22.0	33.4
Promimic	5.0	75.0	80.0
Svenska Vaccinfabriken Produktion	3.5	0.0	3.5
Total	**32.8**	**116.6**	**149.4**

Portfolio Fair Value

Fair Value of the portfolio companies owned directly by Karolinska Development increased by SEK 2.9 million during the second quarter 2022. The main reason was the downturn in share price in the listed holdings, in total SEK 17.9 million, of Modus Therapeutics, OssDsign and Promimic. The investments in Dilafor, Promimic, Svenska Vaccinfabriken Produktion and AnaCardio, in total SEK 21,7 million, reduced the decrease.

Fair Value of the portfolio companies owned indirectly via KDev Investments decreased by SEK 8.2 million during the second 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 5.3 million in the second 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 2.8 million, resulting in Net Portfolio Fair Value decreasing by SEK 2.5 million in the second quarter 2022.

SEKm	30 Jun 2022	31 Mar 2022	Q2 2022 vs Q1 2022
Karolinska Development Portfolio Fair Value (unlisted companies)	679.5	663.3	16.2
Karolinska Development Portfolio Fair Value (listed companies)	50.8	64.1	-13.3
KDev Investments Portfolio Fair Value	543.8	552.0	-8.2
Total Portfolio Fair Value	**1,274.2**	**1,279.4**	**-5.3**
Potential distribution to Rosetta Capital of fair value of KDev Investments	-332.5	-335.3	2.8
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	**941.7**	**944.1**	**-2.5**

Profit development 2022 (comparable numbers 2021)

During the second 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 -23.9 (227.9) million includes the difference between the change in Net Portfolio Fair Value during the second quarter 2022 with SEK -2.5 million, the investment in portfolio company of SEK 21.7 million and the received payment from KCIF KB with SEK 0.2 million. Change in fair value of other financial assets and liabilities amounted to SEK -11.0 (-13.7) million and are the consequence of changes in valuation of earn-out deals. For the period January - June 2022, the change in fair value of shares in portfolio companies amounted to SEK 41.1 (212.4) million and the change in fair value of other financial assets amounted to SEK 10.9 (-15.3) million.

During the second quarter 2022 other expenses amounted to SEK 1.8 (1.6) million and personnel costs amounted to SEK 6.5 (5.6) million. The main reason for the increase in personnel costs compared to the second quarter 2021 is the strengthen of the personnel team during the second quarter of 2022. For the period January – June 2022 other expenses amounted to SEK 3.5 (3.4) million and personnel cost amounted to 16.2 (11.1) million

The operating profit/loss in the second quarter 2022 amounted to SEK -20.8 million compared to SEK 207.4 million in the second quarter 2021. The operating profit/loss for the period January - June 2022 amounted to -49.1 (183.5) million.

The financial net during the second quarter 2022 amounted to SEK -1.5 compared to SEK 9.0 million int the second quarter of 2021. The negative financial net during the second quarter of 2022 is due to unrealized declines in short-term investments. For the period January - June 2022 the financial net amounted to SEK -2.4 (8.0) million.

The Investment Entity's Net profit/loss amounted to SEK -22.3 (216.4) million in the second quarter 2022. Net profit/loss for the period January June 2022 amounted to SEK -51.5 (191.5) million.

Financial position

The Investment Entity's equity to total assets ratio amounted to 99% on 30 June 2022, compared to 92% on 30 June 2021.

The investment company's equity on 30 June 2022, amounted to SEK 1,278.0 million, compared to SEK 1,300.3 million on 31 March 2022. The decrease is a consequence of the profit/loss for the period of SEK -22.3 million.

The company has no interest-bearing liabilities as of 30 June 2022 (SEK 78.7 million as of 30 June 2021).

After paying operational costs and investments for the second quarter 2022, cash and cash equivalents (including short term investments) amounted to SEK 273.9 million on 31 March 2022 compared to SEK 20.8 million on 30 June 2021. Net debt (negative net debt/ net cash) amounted to SEK -273.9 million on 30 June 2022 compared to the net debt of SEK 57.8 million on 30 June 2021.

The company is going concern. The company's ability to continue operations (going concern) has 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 second quarter 2022, the Parent Company's Net profit/loss amounted to SEK -22.3 (216.4) million.

The negative result for the second quarter of 2022 led to a decrease in equity of SEK 22.3 million from SEK 1,300.4 million as of 31 March 2022 to SEK 1,278.1 million 30 June 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 30 June 2022 was SEK 2.46, and the market capitalization amounted to SEK 664 million.

The share capital of Karolinska Development on 30 June 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 30 June 2022 amounted to 270,077,594 shares and 293,074,943 votes.

Ownership

On 30 June 2022, Karolinska Development had 18,234 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%
Handelsbanken Fonder	0	2,685,540	0.99%	0.92%
Nyenburgh Hohlding B.V.	0	2,580,000	0.96%	0.88%
Coastal Investment Management LLC	0	2,470,541	0.91%	0.84%
SEB Investment Management	0	1,734,871	0.64%	0.59%
PSG Capital AB	0	1,474,104	0.55%	0.50%
Sum Top 10 Shareholders	2,555,261	182,083,501	68.37%	70.85%
Sum Other Shareholders	0	85,438,832	31.63%	29.15%
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, 19 August 2022

Björn Cochlovius
Chairman

Philip Duong

Anna Lefevre Sköldebrand

Benjamin Toogood

Theresa Tse

Viktor Drvota
CEO

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

Dates for Publication of Financial Information

Interim Report January – September 2022	18 November 2022
Year-End Report January – December 2022	17 February 2023
Annual Report 2022	24 March 2023
Interim Report January – March 2023	28 April 2023

Karolinska Development is required by law to publish the information in this interim report. The information was published on 19 August 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 Apr-Jun	2021 Apr-Jun	2022 Jan-Jun	2021 Jan-Jun	2021 Full-year
Revenue		621	575	1,211	1,204	2,170
Change in fair value of shares in portfolio companies	2,3	-23,911	227,943	-41,089	212,425	223,203
Change in fair value of other financial assets and liabilities		11,022	-13,744	10,856	-15,278	-33,891
Other expenses		-1,843	-1,557	-3,543	-3,417	-6,887
Personnel costs		-6,487	-5,629	-16,183	-11,071	-23,205
Depreciation of right-of-use assets		-172	-172	-345	-345	-690
Operating profit/loss		**-20,770**	**207,416**	**-49,093**	**183,518**	**160,700**
Financial net		-1,523	8,980	-2,428	7,990	10,119
Profit/loss before tax		**-22,293**	**216,396**	**-51,521**	**191,508**	**170,819**
Taxes		-	-	-	-	-
NET PROFIT/LOSS FOR THE PERIOD		**-22,293**	**216,396**	**-51,521**	**191,508**	**170,819**

Condensed statement of comprehensive income for the Investment Entity

SEK 000	Note	2022 Apr-Jun	2021 Apr-Jun	2022 Jan-Jun	2021 Jan-Jun	2021 Full-year
Net profit/loss for the period		-22,293	216,396	-51,521	191,508	170,819
Total comprehensive income/loss for the period		**-22,293**	**216,396**	**-51,521**	**191,508**	**170,819**

Earnings per share for the Investment Entity

SEK	Note	2022 Apr-Jun	2021 Apr-Jun	2022 Jan-Jun	2021 Jan-Jun	2021 Full-year
Earnings per share, weighted average before dilution		-0.08	1.23	-0.21	1.09	0.97
Number of shares, weighted average before dilution		269,833,309	175,421,124	244,795,823	175,421,124	175,421,124
Earnings per share, weighted average after dilution		-0.08	1.23	-0.21	1.09	0.97
Number of shares, weighted average after dilution		269,833,309	175,421,124	244,795,823	175,421,124	175,421,124

Condensed balance sheet for the Investment Entity

SEK 000	Note	30 Jun 2022	30 Jun 2021	31 Dec 2021
ASSETS				
Tangible assets				
Right-of-use assets		1,035	1,035	690
Financial assets				
Shares in portfolio companies at fair value through profit or loss	2,3	941,702	1,030,827	950,170
Other financial assets	4	69,549	-	61,799
Total non-current assets		**1,012,286**	**1,031,862**	**1,012,659**
Current assets				
Accounts receivable		-	1	-
Receivables from portfolio companies		218	2,108	505
Other financial assets		-	26,007	-
Other current receivables		1,041	1,041	768
Prepaid expenses and accrued income		913	784	2,940
Short-term investments, at fair value through profit or loss		88,032	-	50,005
Cash and cash equivalents		185,895	20,838	42,398
Total current assets		**276,099**	**50,779**	**96,616**
TOTAL ASSETS		**1,288,385**	**1,082,641**	**1,109,275**
EQUITY AND LIABILITIES				
Total equity		**1,278,039**	**991,796**	**971,086**
Long-term liabilities				
Long-term liabilities to related parties	5	-	78,680	-
Total long-term liabilities		**0**	**78,680**	**0**
Current liabilities				
Current interest liabilities to related parties	5	-	-	124,603
Other financial liabilities		409	3,459	1,756
Accounts payable		778	964	1,674
Liability to make lease payment		1,091	1,049	732
Other current liabilities		1,446	1,289	2,156
Accrued expenses and prepaid income		6,622	5,404	7,268
Total current liabilities		**10,346**	**12,165**	**138,189**
Total liabilities		**10,346**	**90,845**	**138,189**
TOTAL EQUITY AND LIABILITIES		**1,288,385**	**1,082,641**	**1,109,275**

Condensed statement of changes in the Investment Entity's equity

SEK 000	Not	2022-06-30	2021-06-30	2021-12-31
Opening balance, equity		**971,086**	**800,267**	**800,267**
Share capital		2,701	1,757	1,757
Share premium		2,735,903	2,378,373	2,378,373
Retained earnings		-1,460,565	-1,388,334	-1,409,044
Closing balance, equity		**1,278,039**	**991,796**	**971,086**

Condensed statement of cash flows for the Investment Entity

SEK 000	Note	2022 Apr-Jun	2021 Jan-Jun
Operating activities			
Operating profit/loss		-49,093	183,518
Adjustments for items not affecting cash flow			
Depreciation		345	345
Change in fair value		30,233	-197,147
Other items		-492	-
Cash flow from operating activities before changes in working capital and operating investments		**-19,007**	**-13,284**
Cash flow from changes in working capital			
Increase (-)/Decrease (+) in operating receivables		-307	-1,905
Increase (+)/Decrease (-) in operating liabilities		-2,079	142
Cash flow from operating activities		**-21,393**	**-15,047**
Investment activities			
Part payment from earn-out deal		1,956	-2,370
Acquisitions of shares in portfolio companies		-32,445	-37,257
Acquisitions of short-term investments		-40,000	-
Cash flow from investment activities		**-70,489**	**-39,627**
Financing activities			
Cash from rights issue		254,911	-
Prospectus costs		-19,175	-
Amortization of lease liabilities		-357	-357
Cash flow from financing activities		**235,379**	**-357**
Cash flow for the period		**143,497**	**-55,031**
Cash and cash equivalents at the beginning of the year		42,398	75,869
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD		**185,895**	**20,838**

Condensed income statement for the Parent Company

SEK 000	Note	2022 Apr-Jun	2021 Apr-Jun	2022 Jan-Jun	2021 Jan-Jun	2021 Full-year
Revenue		621	575	1,211	1,204	2,170
Change in fair value of shares in portfolio companies		-23,911	227,943	-41,089	212,425	223,203
Change in fair value of other financial assets and liabilities		11,023	-13,744	10,856	-15,278	-33,891
Other expenses		-2,022	-1,735	-3,900	-3,774	-7,601
Personnel costs		-6,487	-5,629	-16,183	-11,071	-23,205
Operating profit/loss		**-20,776**	**207,410**	**-49,105**	**183,506**	**160,676**
Financial net		-1,510	8,992	-2,402	8,016	10,164
Profit/loss before tax		**-22,286**	**216,402**	**-51,507**	**191,522**	**170,840**
Tax		-	-	-	-	-
NET PROFIT/LOSS FOR THE PERIOD		**-22,286**	**216,402**	**-51,507**	**191,522**	**170,840**

Condensed statement of comprehensive income for the Parent Company

SEK 000	Note	2022 Apr-Jun	2021 Apr-Jun	2022 Jan-Jun	2021 Jan-Jun	2021 Full-year
Net profit/loss for the period		-22,286	216,402	-51,507	191,522	170,840
Total comprehensive income/loss for the period		**-22,286**	**216,402**	**-51,507**	**191,522**	**170,840**

Condensed balance sheet for the Parent Company

SEK 000	Note	30 Jun 2022	30 Jun 2021	31 Dec 2021
ASSETS				
Financial non-current assets				
Shares in portfolio companies at fair value through profit or loss	2,3	941,702	1,030,827	950,170
Other financial assets	4	69,549	-	61,799
Total non-current assets		**1,011,251**	**1,030,827**	**1,011,969**
Current assets				
Accounts receivable		-	1	-
Receivables from portfolio companies		218	2,108	505
Other financial assets	4	-	26,007	-
Other current receivables		1,041	1,041	768
Prepaid expenses and accrued income		913	784	2,940
Short-term investments at fair value through profit or loss		88,032	-	50,005
Cash and cash equivalents		185,895	20,838	42,398
Total current assets		**276,099**	**50,779**	**96,616**
TOTAL ASSETS		**1,287,350**	**1,081,606**	**1,108,585**
EQUITY AND LIABILITIES				
Total equity		**1,278,095**	**991,810**	**971,128**
Long-term liabilities				
Long-term liabilities to related parties	5	-	78,680	-
Total long-term liabilities		**0**	**78,680**	**0**
Current liabilities				
Current interest liabilities	5	0	-	124,603
Other financial liabilities		409	3,459	1,756
Accounts payable		778	964	1,674
Other current liabilities		1,446	1,289	2,156
Accrued expenses and prepaid income		6,622	5,404	7,268
Total current liabilities		**9,255**	**11,116**	**137,457**
Total liabilities		**9,255**	**89,796**	**137,457**
TOTAL EQUITY AND LIABILITIES		**1,287,350**	**1,081,606**	**1,108,585**

Condensed statement of changes in equity for the Parent Company

SEK 000	Not	30 Jun 2022	30 Jun 2021	31 Dec 2021
Opening balance, equity		**971,128**	**800,287**	**800,287**
Share capital		2,701	1,757	1,757
Share premium reserve		2,735,903	2,378,373	2,378,373
Retained earnings		-1,460,509	-1,388,320	-1,409,002
Closing balance, equity		**1,278,095**	**991,810**	**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. No further transactions with owners.

Definitions

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

Reporting period: January – June 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 273.9 million).

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

Net asset value as of 30 June 2022:

SEK 000	Number of shares	Fair value	Part of Karolinska Developments' net asset value SEK per share[3]	Part of Karolinska Developments' net asset value percentage
Listed assets				
Modus Therapeutics	6,144,821	19,970	0.07	1.6%
OssDsign	5,812,638	3,750	0.01	0.3%
Promimic	312,500	27,084	0.10	2.1%
Total listed assets		**50,804**	**0.19**	**4.0%**
Unlisted assets				
AnaCardio		14,763	0.05	1.1%
Dilafor		24,026	0.09	1.9%
Svenska Vaccinfabriken Produktion		10,346	0.04	0.8%
Umecrine Cognition		623,048	2.31	48.5%
KCIF Co-Investment Fund KB[1]		7,360	0.03	0.6%
KDev Investments[1]		211,355	0.78	16.5%
Total unlisted assets		**890,898**	**3.30**	**69.3%**
Net of other liabilities and debts[2]		**343,067**	1.27	**26.7%**
Total net asset value		**1,284,769**	**4.76**	**100.0%**

[1]The company has both listed and unlisted assets.
[2] Includes SEK 273.9 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

SEK 000	2022 Jan-Jun	2021 Jan-Jun	2021 Full-year
Result level 1			
Listed companies, realized	0	-	-433
Listed companies, unrealized	-28,112	-10,777	-27,159
Total level 1	**-28,112**	**-10,777**	**-27,592**
Result level 3			
Unlisted companies, realized	-438	-887	7,243
Unlisted companies, unrealized	-12,539	224,089	243,552
Total level 3	**-12,977**	**223,202**	**250,795**
Total	**-41,089**	**212,425**	**223,203**

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

SEK 000	2022-06-30	2021-06-30	2021-12-31
Accumulated acquisition cost			
At the beginning of the year	950,170	770,320	770,320
Investments during the year	32,820	48,082	69,154
Sales during the year	-199	-	-112,507
Changes in fair value in net profit/loss for the year	-41,089	212,425	223,203
Closing balance	**941,702**	**1,030,827**	**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 30 June 2022

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	50,804	-	890,898	941,702
Other financial assets	-	-	69,549	69,549
Cash and cash equivalents and short-term investments	273,927	-	-	273,927
Total	**324,731**	**0**	**960,447**	**1,285,178**
Financial liabilities				
Other financial liabilities	-	-	409	409
Total	**-**	**0**	**409**	**409**

Fair value as of 30 June 2021

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	55,351	-	975,476	1,030,827
Other financial assets	-	-	26,007	26,007
Cash, cash equivalents and short-term investments	20,838	-	-	20,838
Total	**76,189**	**0**	**1,001,483**	**1,077,672**
Financial liabilities				
Other financial liabilities	-	-	3,459	3,459
Total	**-**	**0**	**3,459**	**3,459**

Fair value (level 3) as of 30 June 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	27,822	-	-
Compensations	-197	-2,082	-324
Gains and losses recognized through profit or loss	-12,977	9,832	-1,023
Closing balance 30 June 2022	**890,898**	**69,549**	**409**
Realized gains and losses for the period included in profit or loss	-438	-	-
Unrealized gains and losses in profit or loss for the period included in profit or loss	-12,539	9,832	1,023

Fair value (level 3) as of 30 June 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	19,720	-	-
Compensations	-	-	-2,370
Gains and losses recognized through profit or loss	223,202	-1,185	350
Closing balance 30 June 2021	**975,476**	**39,996**	**3,706**
Realized gains and losses for the period included in profit or loss	-887	-	-
Unrealized gains and losses in profit or loss for the period included in profit or loss	224,089	-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 30 June 2022

SEK 000	Ownership	Market value	Valuation model[1]
AnaCardio	20.9%	14,763	Last post money
Dilafor	0.7%	24,026	Last post money
Svenska Vaccinfabriken Produktion	30.8%	10,346	Last post money
Umecrine Cognition	72.6%	623,048	External valuation[2]
KCIF Co-Investment Fund KB	26.0%	7,360	A combination of last post money and share price listed company[3]
KDev Investments	90.1%	211,355	A combination of last post money and share price listed company[4]
Total level 3		**890,898**	

[1]See The Annual Report 2021 Valuation of portfolio companies at fair value, for a description of valuation models.
[2]Risk 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.
[3]KCIF 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.
[4]KDev 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 332.5 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 44.2 million have been repaid to Rosetta Capital. In addition, SEK 1.3 million has been distributed, which reduce the second 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	30 Jun 2022	30 Jun 2021	31 Dec 2021
Karolinska Development Portfolio Fair Value (unlisted companies)	679,544	731,794	652,377
Karolinska Development Portfolio Fair Value (listed companies)	50,804	55,351	73,920
KDev Investments Portfolio Fair Value	543,832	610,352	566,807
Total Portfolio Fair Value	**1,274,180**	**1,397,497**	**1,293,104**
Potential distribution to Rosetta Capital of fair value of KDev Investments	-332,478	-366,670	-342,934
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	**941,702**	**1,030,827**	**950,170**

NOTE 4 Other financial assets

SEK000	30 Jun 2022	30 jun 2021	31 Dec 2021
Other financial assets, non-current			
Earn-out agreement Forendo Pharma[1]	69,549	-	61,799
Earn-out agreement Oncopeptides[2]	0	-	0
Total	**69,549**	**0**	**61,799**
Other financial assets, current			
Earn-out agreement Oncopeptides[2]	-	26,007	-
Total	**-**	**39,996**	**40,459**

[1]Karolinska Development is entitled to earn-out payments according to the agreement with Organon regarding the sale of Forendo Pharma, se below.
[2]Karolinska 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 69.5 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	30 jun 2022	30 Jun 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	-	8,680	12,103
Total	**-**	**78,680**	**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	30 Jun 2022	30 Jun 2021	31 Dec 2021
Pledge assets			
Capital Adequacy Guarantee for Portfolio company	-	2,000	-
Contingent liabilities			
Investment agreement in portfolio company	-	-	12,927
Summa	**-**	**2,000**	**12,927**