

Q1

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 heart failure, serious viral infections, kidney disease, sepsis, anemia, pain, systemic inflammation, bone defects, women's health and liver diseases. 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 0.2 million (SEK -28.0 million in the first quarter of 2023). Earnings per share totaled SEK 0.00 (SEK -0.10 in the first quarter of 2023).
- The result of the Change in fair value of shares in portfolio companies for the first quarter amounted to SEK 1.9 million (SEK -24.4 million in the first quarter of 2023). The result is largely due to the upturn in share price in the listed holding OssDsign which is partially offset by the downturn in share price in the listed companies Modus Therapeutics and Promimic.
- The total fair value of the portfolio was SEK 1,452.2 million at the end of March 2024, corresponding to an increase of SEK 11.9 million from SEK 1,440.3 million at the end of the previous quarter. The net portfolio fair value at the end of March 2024 was SEK 1,114.2 million, corresponding to an increase of SEK 13.8 million from SEK 1,100.4 million at the end of the previous quarter. The increase is mainly the effect of investments during the quarter and the net of share price changes in listed companies, upturn in share price of OssDsign but downturn in share price of, among others, Modus Therapeutics and Promimic.
- Net asset value amounted to SEK 1,254.3 million, per share SEK 4.6, at the end of March 2024 (SEK 1,218.2 million, per share SEK 4.5 at the end of March 2023).
- Net sales totaled SEK 0.5 million during the first quarter of 2024 (SEK 0.5 million during the first quarter of 2023).
- Karolinska Development invested a total of SEK 12.0 million in portfolio companies during the
 first quarter of 2024 (SEK 25.1 million in the first quarter of 2023). First quarter 2024 investments
 in portfolio companies by Karolinska Development and other specialized life sciences investors
 totaled SEK 242.8 million (SEK 105.4 million in the first quarter of 2023).
- Cash and cash equivalents (including short-term investments) decreased by SEK 17.8 million during the first quarter, totaling SEK 67.5 million on 31 March 2024 (SEK 156.6 million on 31 March 2023).



Significant events during the first quarter

- The portfolio company OssDsign reported positive data from the clinical study TOP FUSION.
 Top-line results show a 93% spinal fusion rate at 12 months as assessed with CT by independent radiological review after surgery with the novel nanosynthetic bone graft OssDsign Catalyst (January 2024).
- The portfolio company AnaCardio received the second tranche of SEK 50 million, completing the
 previously announced Series A investment round totaling SEK 150 million. The financing will fund
 the continued development of the company's drug candidate AC01, including the ongoing clinical
 phase 1b/2a study in heart failure patients (January 2024).
- The portfolio company Umecrine Cognition presented recent nonclinical data elucidating golexanolone's mode-of-action in Parkinson's disease at the 18th International Conference on Alzheimer's and Parkinson's Diseases 2024 in Lisbon, Portugal, during March 5-9 (March 2024).
- The portfolio company Biosergen published a prospectus for the issue of units that was approved during an extraordinary general meeting on March 1, 2024 (March 2024).
- The portfolio company Aprea Therapeutics received FDA approval of the company's
 Investigational New Drug Application (IND) application for the drug candidate APR-1051. Aprea
 also secured funding up to USD 34 million through a financing round led by Sphera Healthcare.
 With the approval and financing in place, the company will be able to start the first clinical study
 with APR-1051 (March 2024).
- The portfolio company Umecrine Cognition presented a positive safety data from the first part of
 its clinical Phase 1b/2 study of golexanolone in patients with Primary Biliary Cholangitis, PBC.
 The second part of the study, which will now be initiated, aims to evaluate the preliminary efficacy
 of the drug candidate and further study its safety profile. Top-line results are expected in H1, 2025
 (March 2024).

Viktor Drvota, CEO of Karolinska Development, comments:

"2024 has begun strongly with development within the respective portfolio companies proceeding according to plan. The adverse market climate we have previously experienced notwithstanding, our portfolio companies have continued tirelessly to advance the development of tomorrow's treatments in order that patients can reap the benefits as quickly as possible. We look forward to an increasing tailwind and further progress during the year."

Contact information

For further information, please contact:

Viktor Drvota, Chief Executive Officer +46 73 982 52 02 viktor.drvota@karolinskadevelopment.com

Hans Christopher "HC" Toll, Chief Financial Officer +46 70 717 00 41 Hc.toll@karolinskadevelopment.com



Chief Executive's Report

It's been an intensive start to the year, with a veritable flood of news from our portfolio companies and the completion of a number of successful capital raises. AnaCardio has made progress since completing a phased investment round, and is now focusing fully on their ongoing clinical trial in the area of heart failure. Aprea Therapeutics and Biosergen have also strengthened their financial position, and the former is now focusing on the launch of clinical trials of a promising candidate drug in the oncology area. Another of our portfolio companies, Umecrine Cognition, is continuing to generate additional scientific evidence in support of its golexaolone candidate drug in the form both of positive safety data from the ongoing clinical trial in PBC (Primary Biliary Cholangitis) patients and preclinical data showing potential in the treatment of Parkinson's disease. In the MedTech sector, OssDsign – who has already achieved a breakthrough in the US market with their nanosynthetic bone graft – reported exceptionally strong results from a clinical trial in spinal fusion surgery, which are expected to provide a further boost for their entry into the US market

AnaCardio's investment round secures SEK 50 million

AnaCardio has obtained extra financing within the framework of a previously announced Series A investment round led by Flerie Invest and Industrifonden. 3B Health Ventures, Karolinska Development, Fredrik and Ann-Helene Ljungström, and LLD Nybohov Invest also participated. The latest and concluding tranche of the investment round yielded SEK 50 million for the company and this capital contribution will be used to finance the continued development of the company's candidate drug, AC01, a small molecule with the potential to boost the heart's ability to pump blood and to impact the underlying cause of heart failure. AC01 is currently being evaluated in a clinical phase 1b/2a trial in patients with heart failure and a deterioration in the heart's pumping function, and we look forward to monitoring the further development of this candidate drug.

OssDsign reports positive data from the TOP FUSION study

In January, OssDsign presented strong clinical results for the company's nanosynthetic bone graft, OssDsign Catalyst. The results of the TOP FUSION clinical study showed a 93% fusion rate at 12 months in spinal fusion surgery using OssDsign Catalyst, which is an exceptionally good figure, given that the challenge of this type of surgery specifically entails establishing spinal fusion. Failed surgeries lead to considerable suffering for the patients and a spinal fusion rate of this calibre is highly advantageous from a competition standpoint. The results surpass previously presented preclinical results that formed the basis for the US launch of the product and these stable clinical data are expected to further strengthen the product's establishment in the US market.

Umecrine Cognition presents positive outcomes in both PBC and Parkinson's disease

Umecrine Cognition has presented successful results for its candidate drug, golexanolone, in both primary biliary cholangitis, PBC, and Parkinson's disease. Golexanolone is currently being evaluated in a clinical phase 1b/2a trial in patients with PBC, and the first part of the trial has generated positive safety data. Having obtained the go-ahead from the trial's internal safety evaluation committee, the second part of the trial – which aims to evaluate the preliminary effect of the candidate drug and to continue the evaluation of its safety profile – will commence shortly. The results of the study are expected in the first half of 2025.

In March, Umecrine Cognition presented new preclinical results illustrating golexanolone's mechanism of action in Parkinson's disease at the annual AD/PD conference held in Barcelona, Spain. The results show that golexanolone improves both motor and non-motor symptoms, including fatigue, anxiety, and



depression. Golexanolone was, furthermore, shown to partially inhibit the decrease in the enzyme, tyrosine hydroxylase, and to prevent the increase in the neurotoxic protein alpha-synuclein. This protein is key in the progression of Parkinson's disease.

Aprea secures both funding and FDA-IND approval

In March, Aprea Therapeutics received FDA approval of the company's IND (Investigational New Drug) application for its candidate drug, APR-1051, and, at the same time, strengthened its financial position. A financing round led by Sphera Healthcare generated up to USD 34 million in funding for Aprea, which will be used to finance future clinical development work and an initial clinical phase 1 trial of APR-1051. The trial is designed to evaluate the effect in patients with forms of cancer that overexpress Cyclin E – a protein that regulates cell division – including ovarian and breast cancers. APR-1051 has demonstrated interesting properties in preclinical trials, offering the potential to develop the candidate drug as a more effective cancer therapy than similar ones currently under development. The hope is that the clinical trial can begin in the first half of 2024.

Biosergen strengthens its financial position

Biosergen has completed a preferential rights issue that yielded just over SEK 26 million before issue costs. The company has achieved several developmental and commercial milestones during the past year, most recently an agreement with the Indian pharmaceutical company, Alkem Laboratories, for the joint development and licensing of the candidate drug, BSG005, and which will entail Alkem financing and conducting all of the clinical trials required for approval by the Indian authorities. Biosergen will retain the rights to commercialise BSG005 in the rest of the world, and the capital contribution from the rights issue will now enable the company to take the next value creation step in its development.

Positive outlook for 2024

2024 has begun strongly with development within the respective portfolio companies proceeding according to plan. We are sensing an easing in the financial climate and are also detecting positive stock market signals, particularly in the USA where this is an election year, but the trend is also becoming perceptible in Europe. The adverse market climate we have previously experienced notwithstanding, our portfolio companies have continued tirelessly to advance the development of tomorrow's treatments in order that patients can reap the benefits as quickly as possible. We look forward to an increasing tailwind and further progress during the year.

Solna, 26 April 2024

Viktor Drvota Chief Executive Officer



Portfolio Companies

High potential for continued value inflection in portfolio

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, per March 31, 2024, consisted of eleven companies focused on developing innovative treatment methods for severe or life-threatening diseases where there is currently a great need and there is a lack of effective treatment alternatives. Nine 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 2024–2025, three portfolio companies are expected to present data from phase 1 studies and six portfolio companies are expected to present data from phase 2 studies. Additionally, one company is preparing to start a phase 3 study. 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 (SEK) for the individual projects.

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. In the case of Forendo Pharma the deal with the acquirer Organon stipulates significant milestone payments, provided milestones are met, in both the drug development phase as well as in the commercial phase.





KD: Karolinska Development KDev Invest: KDev Investments Hep. B/D: Hepatitis B/D DDR: DNA damage repair Hidradenitis S.: Hidradenitis suppurativa

^{*} Fully diluted ownership based on current investment plans

^{**} Includes indirect holdings through KCIF Co-Investment Fund

^{***} Passive investment



Dilafor

Project (First-in-class)
Tafoxiparin

Primary indicationPriming of Labor
Preeclampsia

Development phase Phase 2b

Holding in company*
Karolinska Development 2%
KDev Investments 29%

Other investors Opocrin

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

Origin Karolinska Institutet

More information dilafor.com

* Fully-diluted ownership based on current investment plans.

Deal values for similar projects

- USD 500 million
 ObsEva (licensor) &
 Organon (licensee) 2021
- USD 397 million Velo Bio (seller) & AMAG
 Pharmaceuticals (buyer) 2018

Dilafor AB



Reducing complications in prolonged childbirth

Dilafor (Solna, Sweden) is developing tafoxiparin for obstetric indications, with particular reference to protracted labor and associated complications. Up to 30 percent of all pregnant women undergo induction in labor. In just over half of all cases, the induction fails, leading to protracted labor that entails an increased risk for both mother and child due to medical complications. Between 25 and 40 percent of women who experience protracted labor eventually require an emergency caesarean section. Surgical intervention always entails not only a risk to the patient, but substantial health care costs. With the help of tafoxiparin, the patient suffering could be reduced, and valuable health care resources could be saved.

In 2021, the results of a placebo-controlled phase 2b study were presented, which showed 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 extended the phase 2b study, to document the effect of tafoxiparin also in two lower doses than what has been studied thus far. The extension study included 164 women, and positive results regarding dose response were presented in mid-February 2023.

The market

About a quarter of all pregnant women need labor induction. The current standard treatment includes administration of prostaglandins and oxytocin, but in over 50 percent of cases, the induction fails, leading to protracted labor, emergency caesarean sections, or other maternal and fetal 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

 In February 2023, positive results from the extension of the phase 2b study regarding dose response were presented.

Expected milestones

Start of Phase 3 study with tafoxiparin for priming of labor.





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

Primary indications

Primary biliary cholangitis (PBC) Parkinson's Disease

Development phase Phase 2b

Holding in company* Karolinska Development 62%

Other investors

Fort Knox Förvaring AB PartnerInvest

Origin Umeå University

More information

mecrinecognition.com

* Fully-diluted ownership based on current investment plans.

Deal values for similar projects

- USD 794 million Intercept Pharmaceuticals (seller) & Alfasigma (buyer) 2023
- USD 601 million GENFIT (licensor) & IPSEN (licensee) 2015

Umecrine Cognition AB



Developing a new approach to alleviate cognitive impairment

Umecrine Cognition (Solna, Sweden) is developing golexanolone (GR3207), a candidate drug in a new class of pharmaceuticals that affect the GABA system, the chief inhibitory neurotransmitter in the central nervous system. The GABA system is suspected of being overactivated in liver failure and potentially other severe inflammatory diseases such as Parkinson's disease, causing very serious clinical symptoms. The overactivation is also thought to lay behind certain cognitive impairments and sleep disturbances. GABA-Areceptor modulating steroid antagonists, such as golexanolone, counter the increased activation of the GABA system and have been shown to restore different types of neurological impairments in experimental models.

Umecrine Cognition is developing golexanolone for two indications: Primary Biliary Cholangitis (PBC) and Parkinson's disease. The company has also conducted a phase 2a clinical study of golexanolone in patients with Hepatic encephalopathy (HE), which is a serious neuropsychiatric and neurocognitive condition that occurs in acute and chronic liver damage. The results showed that the drug candidate was well tolerated. One of the effect parameters used shows that the drug candidate exerts a significant effect on brain signaling, with a correlated positive effect on extreme daytime fatigue. Based on these study results, the company has established a plan for the further development of the drug candidate in PBC, where a phase 2 study is now also underway. Golexanolone has also been tested in a preclinical model of Parkinson's disease which showed positive effect both on symptoms and neuroinflammation.

The market

PBC (primary biliary cholangitis) is a rare autoimmune liver disease with about 190,000 patients globally where 9 out of 10 sufferers are women. Common symptoms include fatigue, cognitive impairment, itching and, in more advanced cases, even jaundice. The global PBC treatment market is estimated at USD 584 million in 2021 and is expected to grow to USD 3 billion by 2027. Parkinson's disease is a neurodegenerative disorder that causes severe cognitive impairment as well as impaired motor functions. Around 10 million people suffer from the disease. Current medications primarily focus on improving motor function, while there is a lack of treatments to combat the

devastating cognitive impairments caused by the disease. The treatment market was valued at USD

3.4 billion in 2019 and is expected to grow with over 6 percent per year until 2029.

Recent progress

- In June 2023, data wass presented, showing that golexanolone's mode-of-action and ability to reduce neuroinflammation.
- In November 2023, new positive preclinical results were presented indicating normalizing effects of golexanolone on PBC-like symptoms.
- In March 2024, new preclinical results on golexanolone's mechanism of action in Parkinson's disease were presented. Previous preclinical data on positive effects of golexanolone in Parkinson's Disease were presented in July 2023.
- In March 2024, the company announced the successful completion of part A of the clinical phase 1/2b study in PBC, where interim data show a favorable safety and tolerability profile and that the company will now initiate part B.

Expected milestones

Topline data from the Phase 2 study of golexanolone in patients with PBC are expected H1 2025.





Project (First-in-class) Sevuparin

Primary indication

Sepsis/Septic shock Anemia chronic inflammation/ kidney disease Severe malaria

Development phase Phase 2

Holding in company*

Karolinska Development 66% KDev Investments 8%

Other investors

John Öhd Nordnet Pensionsförsäkring Hans Wigzell

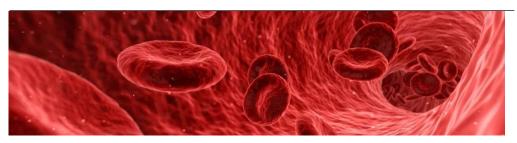
Origin

Karolinska Institutet Uppsala University

More information modustx.com

*Fully-diluted ownership based on current investment plans

Modus Therapeutics AB



Develops sevuparin for patients with severe diseases and major medical needs

Modus Therapeutics AB (Stockholm, Sweden) is developing its patented polysaccharide sevuparin as a possible treatment for several major healthcare needs, including sepsis/ septic shock and other conditions with severe systemic inflammation such as severe malaria and endotoxemia, as well as for anemia in chronic inflammation e.g kidney disease. In February 2023, the company presented positive results from a phase 1b clinical study of sevuparin, where the drug candidate's safety profile and efficacy have been evaluated in a well-established disease model for systemic inflammation (such as sepsis).

Preclinical research presented in 2023 also showed sevuparin's ability to counteract high levels of the iron-regulating hormone hepcidin (in cells, in mice and in humans), which points to the possibility of counteracting anemia in kidney disease and other conditions of chronic inflammation. In addition, in a model of chronic kidney disease in mice, sevuparin showed the ability to counteract both anemia and kidney damage in the disease model, with and without the addition of erythropoietin (standard treatment).

In December 2023, Modus carried out a rights issue that amounted to SEK 19.4 million. Karolinska Development participated with SEK 15 million. The raised capital will finance the clinical development of Sevuparin in anemia and chronic kidney disease.

The market

Septic shock is a leading cause of death in intensive care units, with mortality rates often exceeding 30 percent. No specific drug treatment is yet available. This makes the condition one of the most costly to treat in hospital care. In 2019, US healthcare costs for patients with sepsis were estimated at USD 23 billion.

Approximately 10 percent of the world's population is believed to have grade 3-5 chronic kidney disease, and approximately 25 percent of these are expected to have anemia, which equates to approximately 4-5 million patients in the United States alone. Lack of treatment response to today's standard treatments often poses a problem in being able to maintain adequate treatment over time.

Recent progress

- In February 2023, the company presented positive results from the clinical phase 1b study of sevuparin, in a well-established disease model for systemic inflammation e.g. sepsis.
- In May 2023, Modus announced that they have, in collaboration with a world-leading research
 group, generated data showing that sevuparin has the potential to be developed as a treatment
 for anemia in patients with certain chronic diseases.
- In December 2023, preclinical data were presented showing that sevuparin can counteract the anemia that occurs in a well-established preclinical model of chronic kidney disease in mice.
- In December 2023, Modus carried out a rights issue that amounted to SEK 19.4 million.
 Karolinska Development participated with SEK 15 million.

Expected milestones

 Phase 2a studies in patients with chronic kidney disease and anemia and sepsis with estimated starts in 2024/2025.



AnaCardio

Project (First-in-class) AC01

Primary indication Heart failure

Development phase Phase 2a

Holding in company' Karolinska Development 19%

Other investors
Flerie Invest
LLD Nybohov Invest
Industrifonden
3B Health Ventures

Origin

Karolinska Institutet Karolinska University Hospital

More information anacardio.com

*Fully-diluted ownership based on current investment plans

Deal values for similar projects

- USD 1.1 billion Cardior Pharmaceuticals (seller) & Novo Nordisk (buyer) 2024
- USD ~1,8 billion
 CinCor Pharma (seller) &
 AstraZeneca (buyer)
 2023

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 high blood pressure or vasoconstriction. The chronic phase is characterized by diffuse symptoms, such as tiredness or breathlessness, which leads to the illness often being diagnosed at a late stage. Acute heart failure results in an individual's health status becoming critical, necessitating hospitalization, but a major issue 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 the disease. The drug candidate is based on research by Professor Lars Lund at Karolinska Institutet.

In September 2022, a series A financing round of SEK 150 million was closed in which Karolinska Development participated together with a group of reputable investors to finance a clinical phase 1b/2a study of the drug candidate AC01 in patients with heart failure.

The market

It is estimated that more than 6 million individuals in the United States and nearly 100 million globally suffer from heart failure. The risk of developing a cardiovascular disease increases with age, and 10-20 percent of the elderly population is now estimated to suffer from chronic heart failure, which is now the most common reason for hospitalization amongst the elderly. Heart failure not only causes considerable individual suffering, but it also has significant economic consequences for society in the form of both direct costs from in-patient care and indirect costs such as productivity losses. The increased medical need is reflected in the sales value of heart failure treatments, which is expected to increase from USD 6.8 billion by 2021 to USD 18.7 billion by 2028 in the world's seven largest pharmaceutical markets.

Recent progress

- In March 2023, AnaCardio's founder published an article that supports development of heart failure drug candidate AC01
- In April 2023, the first patient was included in the company's clinical phase 1b/2a study.
- In August 2023, AnaCardio received IND approval from the FDA for AC01.
- In January 2024, AnaCardio secured SEK 50 million in the second and final part of the previously announced series A financing round of a total of SEK 150 million. Karolinska Development participated in both parts of the financing.

Expected milestones

 Topline data from the phase 1b/2a study of drug candidate AC01 are expected to be available in 2025.



PHARMNOVO

Project (First-in-class)

PN6047

Primary indication Allodynia/ Hyperalgesia

Development phase Phase 1

Holding in company' Karolinska Development 13%

Origin Start-up

More information

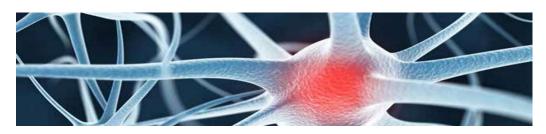
pharmnovo.com

*Fully-diluted ownership based on current investment plans

Deal values for similar projects

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

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 10 percent 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 candidate, PN6047, focuses on allodynia and hyperalgesia, two common forms of nerve pain, affecting 15-20 percent 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. Current treatment options are deemed ineffective and are also associated with significant side-effects; particularly cardiovascular risks, and, with gabapentinoids or conventional opioids, a higher risk of suicide and drug abuse potential.

PharmNovo's novel drug candidate PN6047, which is based on a drug development project from AstraZeneca, targets a different receptor than conventional opiate drugs do; the delta opioid receptor, and thereby decreases the chronical pain without the side-effects associated with the currently marketed opioids (constipation, physical dependence and, potentially, fatal respiratory depression). PN6047 has recently completed a clinical phase 1 study showing that PN6047 is safe and well-tolerated at doses predicted to have clinically relevant effects. PN6047 has also been tested in several mechanistic in vitro models and in animal models for neuropathic pain conditions, as well as for short-term tolerance and dependence. The drug candidate does not induce drug abuse behavior in non-clinical test models and indicates the capacity to reduce conventional opioid withdrawal symptoms, according to brand new results from a collaboration with researchers at the University of Washington and the University of Michigan, with financial support from the US National Institute of Drug Abuse (NIDA). PharmNovo is now preparing a phase 2 clinical study which is expected to start in 2024.

The market

The need for improved treatments for nerve pain is enormous. Around 10 percent 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 EUR 440 billion annually in Europe alone. The estimated global market value for nerve pain drugs is nearly USD 6 billion per year and the market for allodynia alone is around USD 1.25 billion per year and is expected to continue to grow, driven by an aging population and increased cancer survival.

Recent progress

- In September 2023, new preclinical data were presented showing that there are no signs of abuse potential and that PN6047 alleviates symptoms of withdrawal caused by conventional opioids.
- In October 2023, positive phase 1 data were presented showing that PN6047 is safe and well tolerated at doses predicted to have clinically relevant effects.
- In December 2023, a collaborative project based on PN6047 received funding from the US research institute NIDA to evaluate the drug candidate as a new treatment for opioid withdrawal in a preclinical model.

Expected milestones

• The phase 2 study with PN6047 is expected to start in 2024.





Project (First-in-class) SVF-001 SVF-002

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

Development phase Phase 1

Holding in company* Karolinska Development 34%

Origin Karolinska Institutet

More information

svenskavaccinfabriken.se

*Fully-diluted ownership based on current investment plans

Deal values for similar projects

- USD ~1 billion Janssen Pharmaceuticals (licensor) & GSK (licensee) 2023
- USD 1.4 billion MYR GmbH (acquired) & Gilead Sciences Inc (buyer) 2020

SVF Vaccines AB



New technology for the treatment of viral diseases

SVF Vaccines (formerly Svenska Vaccinfabriken Produktion; Solna, Sweden) develops therapeutic proteins and DNA vaccines against, among other things, hepatitis B and D, as well as vaccines to prevent infections by covid-19 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.

SVF Vaccines uses a proprietary immunotherapy 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 and is now continuing its preclinical development with the goal of enabling a phase 1 study to be initiated in 2024.

Although coronavirus infections are usually mild, some virus types can lead to life-threatening conditions. To meet and prevent severe infections, SVF Vaccines has developed a platform that is expected to enable the production of vaccines against both current and future forms of coronavirus. The company also has had patents granted for chimeric antigens that can create an immune response against chronic hepatitis B and D infections. In February 2023, the company initiated a phase 1 study for its vaccine candidate against covid-19, SVF-002.

The market

SVF Vaccines 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 USD 4-5 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 like SVF Vaccines' has increased markedly in recent years. This is thought to be due to an increased awareness of the potential for the commercialization 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

- In June 2022, the company presented 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 CongressTM.
- In January 2023, the company changed its name to SVF Vaccines.
- In February 2023, the company began a phase 1 clinical study with the company's universal vaccine against covid-19, SVF-002.

Expected milestones

Phase 1 studies of hepatitis B and D vaccines are expected to be initiated in 2024.





Project (First-in-class) HEN-001

Primary indication Hidradenitis suppurativa

Development phase Preclinical

Holding in company* Karolinska Development 15%

Other investors Eir Ventures

Origin Start-up

More information henlez.com

* Fully-diluted ownership based on current investment plans.

Deal values for similar projects

- USD 750 million Janssen (buyer) & XBiotech (seller), 2019
- USD 760 million LEO Pharma (buyer) & PellePharm (seller), 2018

Henlez ApS



Developing a topical treatment against hidradenitis suppurativa

Henlez (Copenhagen, Denmark) is a privately owned company developing a topical enzyme-based treatment of hidradenitis suppurativa. The company was founded 2019 by former Novozymes A/S scientist and current Henlez CEO Jeppe Mouritsen.

Henlez' pre-clinical lead development program, HEN-001, is an enzyme-based, topical application directed towards hidradenitis suppurativa – a highly stigmatizing and chronic inflammatory condition characterized by severe pain, malodorous wound fluid and permanent scarring of the armpits and groin. Despite an increasing number of drug trials, the available treatment options are still insufficient. Patients and key opinion leaders unanimously identify a large unmet need for novel treatments, a problem Henlez is poised to meet.

In October 2022, the company raised EUR 1 million in seed financing from Nordic venture capital firms Eir Ventures and Karolinska Development. The proceeds will cover the formulation development of topical HEN-001 to facilitate a forthcoming clinical evaluation of the product as well as an expansion of the patent portfolio.

The market

An estimated 1 percent of the world's population is affected by hidradenitis suppurativa. The global market for therapeutic treatments of the disease is projected to reach USD 1.8 billion by 2028. Available medical treatment options for the condition mainly comprise repurposed, palliative drugs for systemic administration that are limited in both numbers, safety, and effect.

Recent progress

 In October 2022, Karolinska Development's seed financing of Henlez was made in syndication with the Nordic venture capital firm Eir Ventures, where the two parties have contributed EUR 0.5 million each.





Project (First-in class)
ATR inhibitor ATRN-119
ATR inhibitor ATRN-W1051

Primary indicationSolid tumor malignancies

Development phase Phase 1

Holding in company*
KDev Investments 1%

Other investors
Morgan Stanley
Vanguard Group
BlackRock
Geode Capital Management

Origin Karolinska Institutet

More information aprea.com

* Fully-diluted ownership based on current investment plans.

Aprea Therapeutics Inc



Inhibits the ability of cancerous tumors to repair DNA damage

Aprea Therapeutics (Doylestown, 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 tumors to repair damage in their DNA. The company's primary focus is on the development of ATRN-119, a development project that was acquired by the biotech company Atrin Pharmaceuticals in 2022.

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 is being evaluated in a phase 1/2a clinical study in cancer patients with malignant solid tumors and defined gene mutations – both as monotherapy and in combination with today's standard treatment. The study aims to determine the recommended dose for a clinical phase 2 study and results from the dose-escalating phase 1 part of the study are expected in the first quarter of 2024. The aim is to start patient recruitment for the dose expansion part of the study in the second quarter of 2024.

Aprea is also 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. In September 2023, preclinical data for ATRN-W1051 in ovarian cancer were presented indicating that the selective properties of ATRN-1051 may make it a more effective cancer therapy than other WEE1 inhibitors in development and that it has a promising safety profile. In March 2024, Aprea Therapeutics received FDA approval of the company's IND application for APR-1051. Aprea has also secured funding up to USD 34 million through a financing round led by Sphera Healthcare. With the approval and financing in place, the company will be able to start the first clinical study with APR-1051.

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

The market

Targeting DNA Damage Repair, several commercially available Poly ADP-ribose polymerase (PARP) inhibitors induced substantial response in patients with DNA repair defects and have received Breakthrough Therapy Designation by the US Food and Drug Administration, FDA, 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 ataxia telangiectasia and Rad3-related protein (ATR) represents an emerging strategy to treat a broad spectrum of cancers, most notably those that currently lack fully effective treatments.

Recent progress

- In September 2023, preclinical results for ATRN-1051 were presented with positive in vivo activity and safety profile.
- In October 2023, early clinical results for ATRN-119 were announced, showing that no hematologic or liver function toxicities in the heavily pretreated solid tumor patients have been observed in the first three cohorts to date.
- In March 2024, Aprea Therapeutics received FDA approval of the company's IND application for APR-1051. Aprea has also secured funding up to USD 34 million through a financing round led by Sphera Healthcare. With the approval and financing in place, the company will be able to start the first clinical study with APR-1051.





Project BSG005

Primary indicationSystemtic fungal infections

Development phase Phase 2

Holding in company* KDev Investments 1%

Other investors

The Foundation for Baltic and East European Studies Sintef Venture II AS Rosetta Capital**

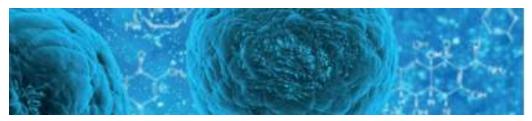
Oriain

SINTEF and Norwegian University of Science and Technology

More information biosergen.se

- * Fully-diluted ownership based on current investment plans.
- ** Co-ownership with KDev Investments

Biosergen AB



Broad treatment of systemic fungal Infections

Biosergen (Solna, Sweden) is conducting a development program, based on it's expertise in biosynthetic technology and targeting systemic fungal infections with their candidate drug, BSG005.

Patients whose immune systems are compromised due to cancer or treatment with immunosuppressive drugs have been shown to be particularly susceptible to systemic fungal infections.

While effective pharmaceutical treatments are available, their use is limited due to serious side effects or an increasing incidence of drug resistance. Biosergen's candidate drug, BSG005, has demonstrated a wide spectrum of anti-mycotic effects in preclinical experimental models, and the candidate drug's properties have, to date, been shown to be far superior to those of conventional treatment in terms of effectiveness, toxicity, and pharmacokinetics.

In March 2023, the company presented data from their phase-1 study which showed that the drug candidate BSG005 has a good safety profile. In September 2023, Biosergen announced a co-development and licensing agreement with one of the largest pharmaceutical companies in India, Alkem Laboratories Ltd and in December 2023, Alkem Laboratories submitted a clinical trial application for a first patient study of BSG005 in invasive fungal infections in India as a rescue therapy. Alkem will fund all phase 2 and 3 patient trials in India except the first patient trial with 15 patients. The studies are expected to cover up to 70 percent of all patients required for a global regulatory process. Biosergen will retain the rights for the rest of the world outside the Indian market.

The market

Fungal infections kill more than 1.5 million globally each year and the numbers continue to increase. In the past 10 years, only one new anti-fungal product has been approved. Despite this, the use of antifungals continues to increase and the WHO has drawn attention to multi -resistance as a serious global health threat. The total sales of antifungals for human use were estimated at approximately USD 16.7 billion in 2020. The Company expects the global annual sales potential for BSG005 to exceed USD 500 million

Recent progress

- In September 2023, Biosergen announced a co-development and licensing agreement with one of the largest pharmaceutical companies in India, Alkem Laboratories.
- In April 2024, the company received SEK 26.4 million in a rights issue (before issue costs).

Expected milestones

• Read-out of Phase 2 trial in India expected during 2024





Project HA^{nano} Surface

Primary indication Implant surface coatings

Development phase Marketed

Holding in company*
Karolinska Development 2%
KDev Investments 12%

Other investors K-Svets Ventures Chalmers Ventures Riepen LCC Andra AP-fonden

Origin Chalmers University of Technology

More information promimic.com

*Fully-diluted ownership based on current investment plans

Promimic AB



Nanocrystals of synthetic bone shorten the healing time of implants

Promimic (Gothenburg, Sweden) is the company behind HA^{nano} Surface, a surface treatment that is currently used clinically on approximately 1.5 million implants.

HA^{nano} Surface is a nanometer-thin coating of hydroxylapatite crystals that helps stimulate the growth of bone cells. This provides a stronger anchoring in bone tissue and better healing. The surface is unique in that it can be applied to all types of implant materials and geometries, including porous materials and 3D printed structures – examples of surfaces where traditional thicker HA coating can clog pores.

In the Brazilian market, Promimic collaborated early on with Sistema de Implante Nacional (S.I.N), a leading supplier of dental implants, which commercializes dental implants coated with HA^{nano} Surface. S.I.N halved the healing time of their implants with the help of Promimic's surface and were acquired by the world-leading dental company Henry Schein in July 2023.

In the United States, the technology is approved by the FDA, which means that new implants with HA^{nano} Surface can be quickly brought to market via a 510(k) process. This has enabled strong growth – in the last two years, the number of approved implants for clinical use has increased from five to 26.

Promimic has a sales office in Austin, Texas and several partnerships for development and commercialization in the US market for orthopedic implants. Currently, the market for spinal implants is the company's strongest segment. The collaboration with the company's customers includes the development and commercialization of products treated with HA^{nano} Surface technology in various application areas.

The market

Promimic focuses on two main segments, namely the markets for orthopedic and dental implants.

Together, these segments represent a global market opportunity for Promimic 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

- In April 2022, Promimic successfully listed the company's share on Nasdaq First North Growth Market in a fully subscribed IPO offering.
- In June 2022, new preclinical results showed that the company's HA^{nano} Surface coating technology reduces the risk of adhesion by common pathogenic bacteria by up to 60 percent.
- In July 2022, Promimic deepened its US investment through the establishment of Nano Processing Inc. – a joint venture with Danco Medical for surface treatment for the US market.

Expected milestones

In 2024, the company is expected to run development projects with both existing and new
customers, and further product launches and license agreements will be finalized and announced.



OSSDSIGN®

Project
OssDsign® Catalyst

Primary indicationBone grafts

Development phase Marketed

Holding in company* Karolinska Development 10%**

Other investors TAMT Linc AB

Origin

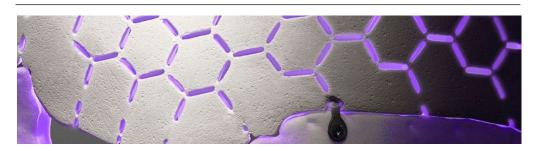
Karolinska University Hospital Uppsala University

More information ossdsign.com

* Fully-diluted ownership based on current investment plans

** Includes indirect holdings through KCIF Co-Investment Fund

OssDsign AB



Creating the next generation bone replacement products

OssDsign (Uppsala, Sweden) is an innovative company in bone regeneration. Since September 2023, the company is focusing its entire business on the orthobiologics market in the USA. This strategy is against a background of an outstanding commercial success for the nanosynthetic bone graft OssDsign Catalyst, an "off the shelf" product with very good scalability and a high gross margin.

About 20 percent of all low back pain surgeries fail due to poor fusion between the implant and the spine. When surgeons perform the procedure, they use a combination of screws and metal braces to fix the vertebrae and bone replacement material to stimulate bone growth. OssDsign Catalyst is an innovative synthetic bone graft consisting of a proprietary nanocrystalline structure of calcium phosphate. OssDsign Catalyst mimics the body's own bone mineral structure and provides a favorable biological environment for rapid and reliable bone formation. OssDsign Catalyst can be produced with high scalability, has an attractive profit margin and great potential in the market for standardized surgical procedures. OssDsign Catalyst received FDA approval in 2020 and launched in the US in August 2021.

OssDsign raised SEK 150 million in September 2023, in a targeted new issue to a number of reputable institutional investors, including TAMT and Linc AB, in order to accelerate the commercial roll out in the US. In connection with the fundraise, OssDsign announced that the company's financial goal is to reach sales of SEK 150-200 million in the mid-term, at which point the company is also expected to be cash flow positive.

The market

The orthobiologics market is valued at USD 5 billion, by 2022. The market segment that OssDsign Catalyst specifically targets is valued at USD 1.8 billion and is expected to have an annual growth rate of 8 percent.

Recent progress

- In September 2023, the company announced its' new strategy to become a pure orthobiologics company with a focus on the US market.
- In September 2023, SEK 150 million were raised in a targeted new issue to a number of reputable institutional investors. Karolinska Development participated with SEK 10 million.
- In December 2023, OssDsign announced that they believe that the fourth quarter revenue will
 exceed market expectations.
- In January 2024, OssDsign reported exceptional data from its TOP FUSION clinical study. The top-line results, reviewed by independent radiologists, show a fusion rate of 93 percent 12 months after surgery with the OssDsign Catalyst nanosynthetic bone graft.



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	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Condensed income statement			
Change in fair value of shares in portfolio companies	1.9	-24.4	15.2
Net profit/loss	0.2	-28.0	5.4
Balance sheet information			
Cash and cash equivalents	67.5	156.6	85.3
Net asset value (Note 1)	1,254.3	1,218.2	1,253.4
Net debt (Note 1)	-67.5	-156.6	-85.3
Share information Earnings per share, weighted average before dilution (SEK)	0.0	-0.1	0.0
Earnings per share, weighted average after dilution (SEK)	0.0	-0.1	0.0
Net asset value per share (SEK) (Note 1)	4.6	4.5	4.6
Equity per share (SEK) (Note 1)	4.6	4.5	4.6
Share price, last trading day in the reporting period (SEK)	1.5	1.7	1.7
Portfolio information			
Investments in portfolio companies	12.0	25.1	103.0
Of which investments not affecting cash flow	1.3	0.6	4.4
Portfolio companies at fair value through profit or loss	1,114.2	984.4	1,100.4

Financial Development for the Investment Entity in 2024

Investments (comparable numbers 2023)

Investments in the portfolio in the first quarter 2024 by external investors and Karolinska Development amounted to SEK 242.8 (105.4) million, whereof 95% (76%) by external investors.

Karolinska Development invested during the first quarter 2024 SEK 12.0 (25.1) million, of which SEK 10.7 (24.5) million was cash investments. Investments were made in AnaCardio with SEK 7.6 million, SVF Vaccines with SEK 2.0 million and in Henlez with SEK 1.1 million. Non-cash investments (accrued interest on loans) amounted to SEK 1.3 (0.6) million.

Investments by external investors in the portfolio companies during the first quarter 2024 amounted to SEK 230.8 (80.3) million and were made in Aprea Therapeutics with SEK 163.7 million, Biosergen with SEK 23.4 million, AnaCardio with SEK 42.6 million and in Henlez with SEK 1.1 million.



Portfolio Fair Value

Fair Value of the portfolio companies owned directly by Karolinska Development had a net increase by SEK 17.3 million during the first quarter 2024. The main reason for the increase in fair value was primarily the upturn in share price in the listed holding OssDsign, together with the investments in AnaCardio, SVF Vaccines and Henlez. The downturn in share price in the listed holding Modus Therapeutics and Promimic reduced the increase.

Fair Value of the portfolio companies owned indirectly via KDev Investments decreased by SEK 5.4 million during the first quarter 2024. The main reasons for the decrease in Fair value of the portfolio companies was the downturn in share price in the listed holding Promimic.

Total Fair Value from portfolio companies owned directly by Karolinska Development and indirectly via KDev Investments increased by SEK 11.9 million in the first quarter 2024.

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 2.0 million, resulting in Net Portfolio Fair Value increasing by SEK 13.9 million in the first quarter 2024.

SEKm	31 Mar 2024	31 Dec 2023	Q1 2024 vs Q4 2023
Karolinska Development Portfolio Fair Value (unlisted companies)	754.3	741.4	12.9
Karolinska Development Portfolio Fair Value (listed companies)	129.0	124.6	4.4
KDev Investments Portfolio Fair Value	568.9	574.3	-5.4
Total Portfolio Fair Value	1,452.2	1,440.3	11.9
Potential distribution to Rosetta Capital of fair value of KDev Investments	-338.0	-340.0	2.0
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	1,114.2	1,100.4	13.9

Profit development 2024 (comparable numbers 2023)

During the first quarter 2024, Karolinska Development's revenue amounted to SEK 0.5 (0.5) million and consists primarily of services provided to portfolio companies.

Change in fair value of shares in portfolio companies of in total SEK 1.9 (-24.4) million includes the difference between the change in Net Portfolio Fair Value during the first quarter 2024 with SEK 13.9 million and the investment in portfolio company of SEK 12.0 million. Change in fair value of other financial assets and liabilities amounted to SEK 4.9 (1.8) million and were the consequence of changes in valuation of earn-out deals.

During the first quarter 2024 other expenses amounted to SEK 1.4 (1.3) million and personnel costs amounted to SEK 7.2 (6.4) million.

The operating profit/loss in the first quarter 2024 amounted to SEK -1.5 million compared to SEK -29.9 million in the first quarter 2023.

The financial net during the first quarter 2024 amounted to SEK 1.7 million compared to SEK 1.9 million in the first quarter of 2023.

The Investment Entity's Net profit/loss amounted to SEK 0.2 (-28.0) million in the first quarter 2024.

Financial position

The Investment Entity's equity to total assets ratio amounted to 99% on 31 March 2024, which it also did on 31 March 2023.

The investment company's equity on 31 March 2024, amounted to SEK 1,247.0 million, compared to SEK 1,246.8 million on 31 December 2023. The increase is a consequence of the profit/loss for the period of SEK 0.2 million.



After the paying of operational costs and investments for the first quarter 2024, cash and cash equivalents (including short-term investments) amounted to SEK 67.5 million on 31 March 2024 compared to SEK 127.2 million on 31 March 2023. Net debt (negative net debt/ net cash) amounted to SEK -67.5 million on 31 March 2024 compared to the net debt of SEK -127.2 million on 31 March 2023.

The company is going concern. The company's ability to continue operations (going concern) is stable. The report is prepared based on the assumption of continued operation.

Financial Development - Parent Company

The Parent Company refers to Karolinska Development AB (comparable numbers 2023).

During the first quarter 2024, the Parent Company's Net profit/loss amounted to SEK 0.2 (-28.1) million.

The positive result for the first quarter of 2024 led to an increase in equity of SEK 0.2 million from SEK 1,246.7 million as of 31 December 2023 to SEK 1,247.0 million 31 March 2024.

The Share

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 2024 was SEK 1.55, and the market capitalization amounted to SEK 418 million.

The share capital of Karolinska Development on 31 March 2024 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 2024 amounted to 270,077,594 shares and 293,074,943 votes.

Ownership

On 31 March 2024, Karolinska Development had 14,412 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%
Styviken Invest AS	0	5,236,206	1.94%	1.79%
Avanza pension	0	4,919,928	1.82%	1.68%
Stift För Främjande & Utveckling	2,555,261	1,755,818	1.60%	9.32%
Coastal Investment Management LLC	0	2,470,541	0.91%	0.84%
Handelsbanken fonder	0	1,431,381	0.53%	0.49%
Nordnet Pensionsförsäkringar	0	1,389,475	0.51%	0.47%
SEB Investment Management	0	1,324,587	0.49%	0.45%
Sum Top 10 Shareholders	2,555,261	184,021,397	69.08%	71.51%
Sum Other Shareholders	0	83,500,936	30.92%	28.49%
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, as well as the war in Gaza and the related disturbances of sea transport through the Red Sea affect the economy and society as a whole, including Karolinska Development and its portfolio companies. The general downturn in the stock market since 2022 as well as the increase in interest rates since then have shifted the financial market's focus from growth companies to companies with positive operating cash flows, which has led to lower valuations in many previously highly valued growth companies. This affects Karolinska Development and its opportunities to not only finance its portfolio companies, but also to divest them at a suitable time for Karolinska Development.

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 works continuously with different financing alternatives to secure the long-term capital requirement and thereby increase the degree of strategic and operational headroom for the future.

For a detailed description of other risks and uncertainties, see the Annual report 2023.

Signing of the report

Solna, 26 April 2024

Viktor Drvota CEO

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

Dates for Publication of Financial Information

Annual meeting 2024 16 May 2024

Interim Report January – June 2024 30 August 2024

Interim Report January – September 2024 15 November 2024

Karolinska Development is required by law to publish the information in this interim report. The information was published on 26 April 2024.

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	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Revenue		471	548	2,014
Change in fair value of shares in portfolio companies Change in fair value of other financial assets and liabilities	2,3	1,865 4,938	-24,360 1,818	15,185 8,891
Other expenses		-1,358	-1,285	-6,963
Personnel costs		-7,187	-6,438	-21,834
Depreciation of right-of-use assets		-249	-179	-798
Operating profit/loss		-1,520	-29,896	-3,505
Financial net		1,728	1,884	8,891
Profit/loss before tax		208	-28,012	5,386
Taxes		-	<u>-</u>	_
NET PROFIT/LOSS FOR THE PERIOD		208	-28,012	5,386

Condensed statement of comprehensive income for the Investment Entity

SEK 000	Note	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Net profit/loss for the period		208	-28,012	5,386
Total comprehensive income/loss for the period		208	-28,012	5,386

Earnings per share for the Investment Entity

SEK Note	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Earnings per share, weighted average before dilution	0.00	-0.10	0.02
Number of shares, weighted average before dilution	269,833,309	269,833,309	269,833,309
Earnings per share, weighted average after dilution	0.00	-0.10	0.02
Number of shares, weighted average after dilution	269,833,309	269,833,309	269,833,309



Condensed balance sheet for the Investment Entity

SEK 000	Note	31 Mar 2024	31 Mar 2023	31 Dec 2023
ASSETS				
Tangible assets				
Right-of-use assets		2,909	536	3,158
Financial assets				
Shares in portfolio companies at fair value				
through profit or loss	2,3	1,114,227	984,401	1,100,398
Other financial assets	4	62,091	58,923	57,443
Total non-current assets		1,179,227	1,043,860	1,160,999
Current assets				
Receivables from portfolio companies		314	269	268
Other financial assets	4	10,743	18,306	10,386
Other current receivables		893	857	673
Prepaid expenses and accrued income		1,505	1,496	795
Short-term investments, at fair value through				
profit or loss		-	29,441	-
Cash and cash equivalents		67,485	127,179	85,272
Total current assets		80,940	177,548	97,394
TOTAL ASSETS		1,260,167	1,221,408	1,258,393
EQUITY AND LIABILITIES				
Total equity		1,247,032	1,213,426	1,246,824
Current liabilities				
Other financial liabilities		197	95	130
Accounts payable		1,451	720	1,323
Liability to make lease payment		2,834	543	3,070
Other current liabilities		2,701	1,448	674
Accrued expenses and prepaid income		5,952	5,176	6,372
Total current liabilities		13,135	7,982	11,569
Total liabilities		13,135	7,982	11,569
TOTAL EQUITY AND LIABILITIES		1,260,167	1,221,408	1,258,393

Condensed statement of changes in the Investment Entity's equity

SEK 000	Not	31 Mar 2024	31 Mar 2023	31 Dec 2023
Opening balance, equity		1,246,824	1,241,438	1,241,438
Share capital		2,701	2,701	2,701
Share premium		2,735,903	2,735,903	2,735,903
Retained earnings		-1,491,572	-1,525,178	-1,491,780
Closing balance, equity		1,247,032	1,213,426	1,246,824



Condensed statement of cash flows for the Investment Entity

SEK 000 Note	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Operating activities	oun ma	oun ma	,
Operating activities	-1.520	-29.896	-3.505
Operating profit/loss Adjustments for items not affecting cash flow	-1,520	-29,090	-3,505
Depreciation	249	179	798
Change in fair value	-6.803	22.542	-24.076
Other items	270	104	2,761
Cash flow from operating activities before changes in working capital and operating investments	-7,804	-7,071	-24,022
Cash flow from changes in working capital			
Increase (-)/Decrease (+) in operating receivables	-746	-455	-104
Increase (+)/Decrease (-) in operating liabilities	1,734	-1,920	-895
Cash flow from operating activities	-6,816	-9,446	-25,021
Investment activities			
Part payment from earn-out deal	-	325	18,271
Acquisitions of shares in portfolio companies	-10,705	-24,535	-98,589
Proceeds from sale of short-term investments	-	30,000	60,336
Cash flow from investment activities	-10,705	5,790	-19,982
Financing activities			
Amortization of lease liabilities	-266	-243	-803
Cash flow from financing activities	-266	-243	-803
Cash flow for the period	-17,787	-3,899	-45,806
Cash and cash equivalents at the beginning of the year	85,272	131,078	131,078
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	67,485	127,179	85,272



Condensed income statement for the Parent Company

SEK 000	Note	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Revenue		471	548	2,014
Change in fair value of shares in portfolio companies	2.3	1,865	-24,360	15,185
Change in fair value of other financial assets and liabilities		4,938	1,818	8,891
Other expenses Personnel costs		-1,624 -7,187	-1,528 -6,438	-7,859 -21,834
Operating profit/loss		-1,537	-29,960	-3,603
Financial net		1,758	1,892	8,837
Profit/loss before tax		221	-28,068	5,234
Tax			-	-
NET PROFIT/LOSS FOR THE PERIOD		221	-28,068	5,234

Condensed statement of comprehensive income for the Parent Company

SEK 000	Note	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Net profit/loss for the period		221	-28,068	5,234
Total comprehensive income/loss for the period		221	-28.068	5.234



Condensed balance sheet for the Parent Company

SEK 000	Note	31 Mar 2024	31 Mar 2023	31 Dec 2023
ASSETS				
Financial non-current assets				
Shares in portfolio companies at fair value through profit or loss	2,3	1,114,227	984,401	1,100,398
Other financial assets	4	62,091	58,923	57,443
Total non-current assets		1,176,318	1,043,324	1,157,841
Current assets				
Receivables from portfolio companies		314	269	268
Other financial assets	4	10,743	18,306	10,386
Other current receivables		893	857	673
Prepaid expenses and accrued income		1,505	1,496	795
Short-term investments at fair value through profit or loss		_	29,441	_
Cash and cash equivalents		67,485	127,179	85,272
Total current assets		80,940	177,548	97,394
TOTAL ASSETS		1,257,258	1,220,872	1,255,235
EQUITY AND LIABILITIES				
Total equity		1,246,957	1,213,433	1,246,735
Current liabilities				
Other financial liabilities		197	95	130
Accounts payable		1,451	720	1,323
Other current liabilities		2,701	1,448	674
Accrued expenses and prepaid income		5,952	5,176	6,373
Total current liabilities		10,301	7,439	8,500
Total liabilities		10,301	7,439	8,500
TOTAL EQUITY AND LIABILITIES		1,257,258	1,220,872	1,255,235

Condensed statement of changes in equity for the Parent Company

SEK 000	Not	31 Mar 2024	31 Mar 2023	31 Dec 2023
Opening balance, equity		1,246,735	1,241,501	1,241,501
Share capital		2,701	2,701	2,701
Share premium reserve		2,735,903	2,735,903	2,735,903
Retained earnings		-1,491,647	-1,525,171	-1,491,869
Closing balance, equity		1,246,957	1,213,433	1,246,735



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. The sole purpose of investing in such companies 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 2024

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

Related party transactions

No related party transactions have taken place during the reporting period.

Definitions

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

Reporting period: January - March 2024.

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 67.5 million).

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



Net asset value as of 31 March 2024:

	Number of shares	Fair value	Part of Ka Development val	ts' net asset
SEK 000			SEK per share ³	percentage
Listed assets				
Modus Therapeutics	23,801,390	27,134	0.10	2.2%
OssDsign	9,135,478	92,268	0.34	7.4%
Promimic	312,500	9,625	0.04	0.8%
Total listed assets		129,027	0.48	10.3%
Unlisted assets				
AnaCardio		52,720	0.20	4.2%
Dilafor		40,328	0.15	3.2%
Henlez		6,912	0.03	0.6%
PharmNovo		34,067	0.13	2.7%
Svenska Vaccinfabriken Produktion		23,274	0.09	1.9%
Umecrine Cognition		588,635	2.18	46.9%
KCIF Co-Investment Fund KB ¹		8,346	0.03	0.7%
KDev Investments ¹		230,918	0.86	18.4%
Total unlisted assets		985,200	3.65	78.5%
Net of other liabilities and debts ²		140,122	0.52	11.2%
Total net asset value		1,254,349	4.65	100.0%

¹The company has both listed and unlisted assets.

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

Change in fair value of portfolio companies

SEK 000	2024 Jan-Mar	2023 Jan-Mar	2023 Full-year
Result level 1			,
Listed companies, realized	-	_	-
Listed companies, unrealized	4,429	-9,095	15,561
Total level 1	4,429	-9,095	15,561
Result level 3 Unlisted companies, realized	723	-341	793
Unlisted companies, unrealized	-3,287	-14,924	-1,169
Total level 3	-2,564	-15,265	-376
Total	1,865	-24,360	15,185

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

SEK 000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Accumulated acquisition cost			
At the beginning of the year	1,100,398	983,995	983,995
Investments during the year	11,964	25,091	102,980
Sales during the year	-	-325	-1,763
Changes in fair value in net profit/loss for the			
year	1,865	-24,360	15,185
Closing balance	1,114,227	984,401	1,100,398

² Includes SEK 67.5 million cash and cash equivalents.
³ In relation to the number of shares outstanding (269,833,309) on the closing date.



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 nonobservable data

Fair value as of 31 March 2024

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	129,027	-	985,200	1,114,227
Other financial assets Cash and cash equivalents and short-term	-	-	72,834	72,834
investments	67,485	-	-	67,485
Total	196,512	0	1,058,034	1,254,546
Financial liabilities				
Other financial liabilities	-	-	197	197
Total	-	0	197	197

Fair value as of 31 March 2023

SEK 000	Level 1	Level 2	Level 3	Total
Financial assets				
Shares in portfolio companies, at fair value through profit or loss	69,168	_	915,233	984,401
Other financial assets	-	-	77,229	77,229
Cash, cash equivalents and short-term investments	156,620	-	-	156,620
Total	225,788	0	992,462	1,218,250
Financial liabilities				
Other financial liabilities	-	-	95	95
Total	-	0	95	95



Fair value (level 3) as of 31 March 2024

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	975,800	67,829	130
Acquisitions	11,964	-	-
Gains and losses recognized through profit or loss	-2,564	5,005	67
Closing balance 31 March 2024	985,200	72,834	197
Realized gains and losses for the period included in profit			
or loss	723	-	-
Unrealized gains and losses in profit or loss for the period			
included in profit or loss	-3,287	5,005	-67

Fair value (level 3) as of 31 March 2023

SEK 000	Shares in portfolio companies	Other financial assets	Other financial liabilities
At beginning of the year	908,461	75,507	191
Acquisitions	22,363	-	-
Compensations	-326	-	-
Gains and losses recognized through profit or loss	-15,265	1,722	-96
Closing balance 31 March 2023	915,233	77,229	95
Realized gains and losses for the period included in profit			
or loss	-316	-	-
Unrealized gains and losses in profit or loss for the period			
included in profit or loss	-14,949	1,722	-96

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 2024

SEK 000	Ownership	Market value	Valuation model ¹
AnaCardio	19.7%	52,720	Last post money
Dilafor	2.4%	40,328	Last post money
Henlez	15.0%	6,912	Last post money
PharmNovo	13.1%	34,067	Last post money
SVF Vaccines	34.2%	23,274	Last post money
Umecrine Cognition	72.6%	588,635	External valuation ²
KCIF Co-Investment Fund KB	26.0%	8,346	A combination of share price
			listed company and fair value of financial asset ³
KDev Investments	90.1%	230,918	A combination of last post
			money and share price listed
			company ⁴
Total level 3		985,200	

¹See The Annual Report 2023 Valuation of portfolio companies at fair value, for a description of valuation models.
²Risk adjusted external valuation by an independent valuation institute in December 2022. The external valuation resulted in

an rNPV value which Karolinska Development has adjusted further in order to reflect an assumed split in risk and revenues in conjunction with a license deal and also to incorporate the financial risk that Umecrine Cognition will not manage to finance fully the final parts of the research program.

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 85% 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 338.0 million, is the amount that KDev Investments according to the investment agreement between Karolinska Development and Rosetta Capital is obliged 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 distributes dividends. KDev Investments will only distribute dividends after all eventual payables and outstanding debt has been repaid. Following dividends from KDev Investments during 2021 - 2023, all additional investments totaling SEK 44.2 million have been repaid to Rosetta Capital. In addition, SEK 6.3 million has been distributed, which reduce the first SEK 220 million in the waterfall structure. See also the annual report for 2023, note 16, 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 2024	31 Mar 2023	31 Dec 2023
Karolinska Development Portfolio Fair Value (unlisted companies)	754,282	707,224	741,365
Karolinska Development Portfolio Fair Value (listed companies)	129,027	69,168	124,598
KDev Investments Portfolio Fair Value	568,926	538,735	574,336
Total Portfolio Fair Value	1,452,235	1,315,127	1,440,299
Potential distribution to Rosetta Capital of fair value of KDev			
Investments	-338,008	-330,726	-339,901
Net Portfolio Fair Value (after potential distribution to Rosetta Capital)	1,114,227	984,401	1,100,398

NOTE 4 Other financial assets

SEK 000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Other financial assets, non-current			
Earn-out agreement Forendo Pharma	62,091	58,923	57,443
Earn-out agreement Oncopeptides	0	0	0
Total	62,091	58,923	57,443
Other financial assets, current			
Earn-out agreement Forendo Pharma	10,743	18,306	10,386
Total	10,743	18,306	10,386

Earn-out agreement Forendo Pharma

Karolinska Development is entitled to earn-out payments according to the agreement with Organon regarding the sale of 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 and payments in 2022 and 2023, to SEK 72.8 million, whereof Karolinska Development expects SEK 10.7 million to be paid during the next 12 months. The earn-outs are expected to be paid during the period 2025–2034, and renewed rNPV valuations will be performed continuously. Forendo Pharma's previous shareholders are entitled to additional future payments totaling USD 870 million upon the achievement of certain development, registration and commercial milestones pertaining to Forendo Pharma's drug candidates.

NOTE 5 Pledge assets and contingent liabilities

SEK 000	31 Mar 2024	31 Mar 2023	31 Dec 2023
Pledge assets			
Contingent liabilities			
Investment agreement in portfolio company	-	7,580	8,705
Summa	0	7,580	8,705