



Nordic Life Science sector update

Carlsquare Equity Research

20 February 2023



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DCM

Advisory on debt financing, including investors, transaction structures and terms.

ECM

Advisory on IPOs and fund raising in the equity capital market space. Placement of block transactions.

Equity Research

Carlsquare Equity Research has been providing commissioned equity research on Nordic companies since 2013. We have covered over 250 companies from various sectors. We also do valuation assignments for private and public companies.

Selection of companies covered

| | | | | | |
|---|-------------------------|------------------------|-------------------------|--------------------------|------------------------------|
| Food supplements and distribution | Industrials | E-commerce | Real estate | Life science | Renewable energy |
|---|-------------------------|------------------------|-------------------------|--------------------------|------------------------------|

Carlsquare Equity Research, Life science-team

The Carlsquare Equity Research Life science team is headed by Niklas Elmhammer. The team has covered over 60 companies in the public Nordic life science space. For questions on the material in this sector report, please contact Niklas Elmhammer at niklas.elmhammer@carlsquare.com and/or Herman Kuntscher at herman.kuntscher@carlsquare.com



Niklas Elmhammer joined Carlsquare Equity Research Life science-team in 2016. He has previous experience from equity research at Swedbank Markets and DnB Markets. Niklas holds a Master's degree in Business & Economics from Stockholm School of Economics.



Herman Kuntscher joined Carlsquare Equity Research Life science-team in 2022. He has previous experience from business development and M&A at Surgical Science. Herman holds a bachelor's degree in Business & Economics from Lund University and St.Gallen.

Selection of valuation assignments

| | | | | | |
|---------------------------------------|--|---|---------------------------------|-----------------------------------|--|
| Personal finance VALUATION | Payment solutions VALUATION | Business management system VALUATION | E-commerce VALUATION | Life science VALUATION | Commercial services VALUATION |
|---------------------------------------|--|---|---------------------------------|-----------------------------------|--|

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Selection of Carlsquare Equity Research publications

Kancera: Expanding the clinical program to oncology

- Carlsquare Equity Research begins coverage of Kancera. In the event of a positive outcome in the ongoing study of myocardial infarction patients (results are expected in the first half of 2023), we see great potential in the shares. At the same time, it is a challenging indication for clinical development. We welcome the announced broadening of the clinical program to cancer, which reduces dependence on a single project. To finance the investment, Kancera raised SEK 46 million, with a potential 23 more in options. In our initiation of coverage report from October 26, we calculated a valuation range of around SEK 2 to 9 per share over a period of around nine months.
- Find the full report here: <https://carlsquare.com/initiation-of-coverage-kancera-broadens-the-clinical-program/>

Kancera share performance. Index = 100, 2021-12-30



Abera: Advancing with new vaccine technology

- On December 5, Carlsquare Equity Research initiated coverage of Abera Bioscience. Abera's vaccine technology is versatile and may target large indications such as pneumococcal disease and cancer. Abera plans to start first-in-human trials in 2023. We calculate a risk-adjusted fair value of SEK 12 per share.
- Find the full report (Swedish) here: <https://carlsquare.com/sv/initieringsanalys-abera-bioscience-avancerar-med-ny-vaccinteknologi/>

Abera share performance
Index = 100, 2021-12-31



Elicera share performance
Index = 100, 2021-12-30



Elicera: The next clinical study in sight

- A research update for Elicera Therapeutics was published on November 23, with Carlsquare Equity Research covering the progress made in the project portfolio. ELC-301, the lead drug candidate pursuing the B-cell lymphoma indication using the iTANK-platform, is a fourth-generation CAR T-cell therapy. A grant of 2.5 million euros from the EU and on-schedule steps in the clinical program contributed to the positive sentiment. The tailwind boosts the target price to a risk-adjusted fair value of SEK 15 per share.
- Find the full report here: <https://carlsquare.com/research-update-elicera-therapeutics-with-the-next-clinical-study-in-sight/>

Cantargia pre-tox data, BioArctic going into the U.S., and Alligator positive data

Cantargia: Preclinical success sets stage for Phase-I

- In a GLP-regulated toxicity study, the drug candidate CAN10 was shown to be well tolerated during the 6-week administration. The drug candidate did not generate any infusion-related events, and no changes to clinical pathology were observed. This positive result lays the foundation for Phase-I trials during H1 2023. CAN10 is the company's second candidate that forsakes the oncology indication for inflammatory and autoimmune diseases such as systematic sclerosis and myocarditis. Following the positive news, the share shot up upwards of 70 per cent.

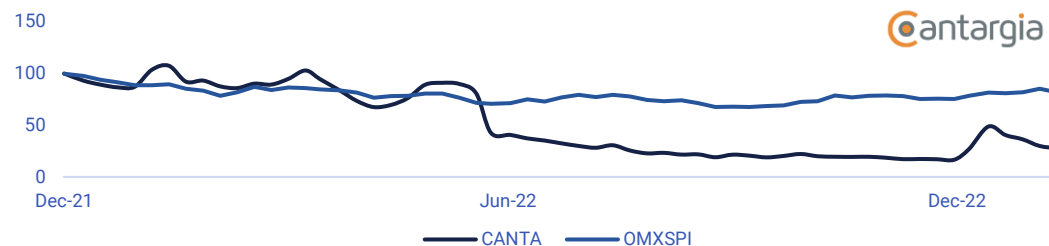
BioArctic: Marketing applications and approvals

- The success of BioArctic with the star drug candidate lecanemab has resulted in applications for market approval for the treatment for early Alzheimer's disease. Under the commercial name Leqembi, Eisai has received accelerated approval in the U.S. with applications pending in the EU as well as Japan. The latter also received a prior assessment consultation, meaning that approval for Japan might come earlier than the EU, possibly in 2023. Since the onset of 2023, the share has risen near 20 per cent, following two quarters of incredible gains of approximately 200 per cent in total.

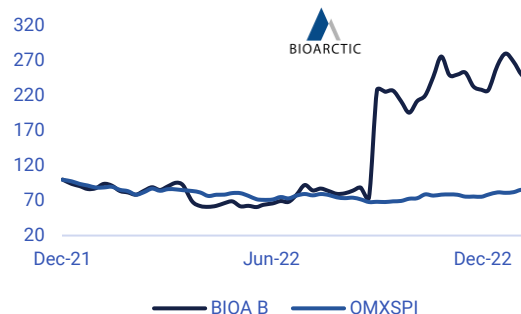
Alligator: Promising developments sets expectations

- Alligator Bioscience released promising interim data from the OPTIMIZE-1 phase-II trial. Mitazalimab pursuing the pancreatic cancer indication showed good response and control rates of 52 and 91 per cent, respectively. The positive readout sets expectations for the topline data to be released during Q1 2024. It has put into motion talks with authorities in both the U.S. and the EU regarding potential accelerated development and approval schemes. Furthermore, increased cooperation with Orion Corporation has been announced regarding the RUBY antibody technology. Following the promising news, the share rallied over 20 per cent QTD.

Cantargia share performance
Index = 100, 2021-12-30



BioArctic share performance
Index = 100, 2021-12-30



Alligator share performance
Index = 100, 2021-12-30

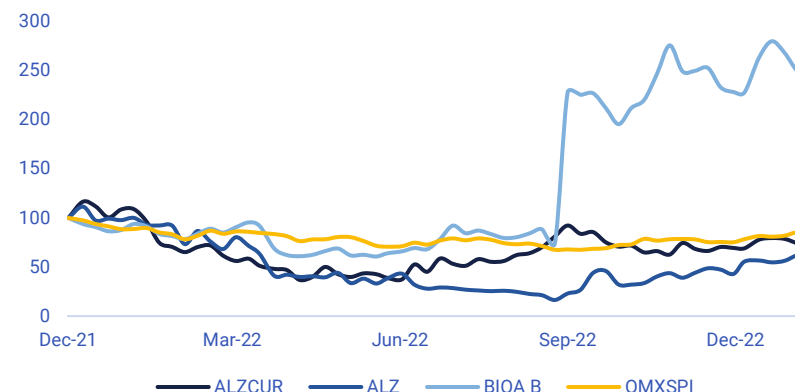


Alzheimer's disease drugs will remain in the spotlight in 2023

Accelerated approval and delayed competition for BioArctic

- **BioArctic's** partner Eisai launched lecanemab/Leqembi to treat early Alzheimer's disease in the US market at the end of January. However, the treatment is not covered by Medicaid at this point. Eisai estimates an eligible target population of 100,000 US patents for lecanemab three years after launch. It expects the market to increase from there over the mid-to-long term as screening and diagnostics improve. According to S&P Capital IQ, analysts expect revenue of about SEK 1.8bn for BioArctic in 2025. Given BioArctic's market cap of some SEK 30bn, it suggests investors are already upbeat about the company's long-term growth prospects beyond 2025.
- Another major sector event is the Phase-III read-out for competitor Eli Lilly's Alzheimer drug candidate donanemab expected for Q2, 2023. In January, the FDA issued a Complete Response Letter (CRL) for the accelerated approval submission for donanemab. According to Lilly, FDA requested a longer safety follow-up from a larger population before considering approval.

Share development Index = 100, 2021-12-30



Pipeline news flow also expected for smaller drug developers

- Following the positive outcome in the first-in-human trial, **Alzecure** is planning for a Phase-II study for ACD856 and aims to apply for an IND to the FDA, which could open for clinical development in the US. ACD856 is a small molecule neurotrophin enhancer with the aim to improve cognitive ability in neurodegenerative diseases, including Alzheimer's. For a company presentation, see the following link: <https://carlsquare.com/sv/alzecure-pharma-at-carlsquare-nordic-life-science-investor-day/>
- Sector peer **Alzinova** is finalizing a randomized Phase-Ib trial in mild Alzheimer's disease patients for its therapeutic vaccine candidate ALZ-101 targeting amyloid β oligomers.
- The FDA approval of lecanemab may spur increased industry interest in collaborations or M&A in the Alzheimer's field. Arguably, deal activity has been a bit slow in recent years. Historically, however, there are several examples of collaborations with potential deal values of up to more than USD 1bn.

Pipeline of selected Alzheimer's disease drugs

| Project | Phase | Mode of action | Efficacy (CDR SB) | Safety |
|---------------|---------------------------|--------------------------------|--------------------------------|--------------------------|
| Lecanemab | Accelerated approval (US) | Amyloid-B protofibril antibody | 27% lower change at 18m v. PBO | Symptomatic ARIA-E 2.8 % |
| Donanemab* | III/AA review | Amyloid-B antibody | ns | Symptomatic ARIA-E 6.1 % |
| Blarcamesine* | II/III | Sigma-1-agonist | 27% lower change at 48W v. PBO | Generally safe |
| Simuflam* | III | FLNA agonist | Only Open Label | Generally safe |
| Semaglutide | III | GLP-1 agonist | - | Approved for T2 diabetes |
| ALZ-101 | I | Amyloid B oligomer vaccine | Phase Ib ongoing | Phase Ib ongoing |
| ACD-586 | I | Neurotrophin enhancer | - | Generally safe |

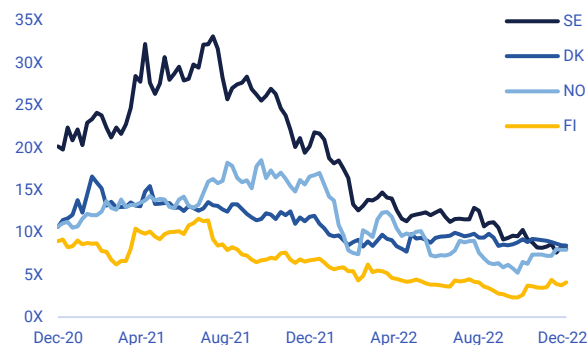
CDR-SB: Clinical Dementia Rating scale. PBO: Placebo. *Phase II results

Country valuation gap has been closed. Sweden trading stable on EBITDA multiple

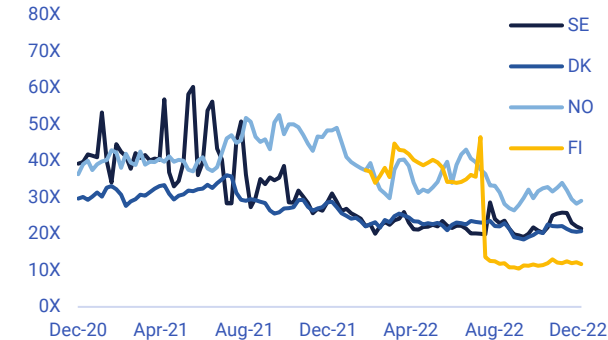
Summary

- **Denmark** retained the highest median EV/sales multiple in the last quarter, while **Finland** remained considerably lower. The trend of multiples converging from a widened state during most of 2021 continued.
- **Norway** remained the highest valued in terms of EV/EBITDA, with **Sweden** the lowest. **Finland** and **Denmark** continued to be very close following the first half of the year, where **Finland** saw the highest valuations.
- **Diagnostic imaging**, mainly boosted by **Vibrosense Dynamics**, remained above a median of 40x EV/sales. Most other sectors converged and remained in the range of 2x-6x, with **General Surgery** leading the pack.
- **Healthcare IT** soared above 200x EV/EBITDA, with **Zenicor** being the outlier. Ignoring this, **General Surgery** was valued the highest, reaching above a median of 20x EV/EBITDA .

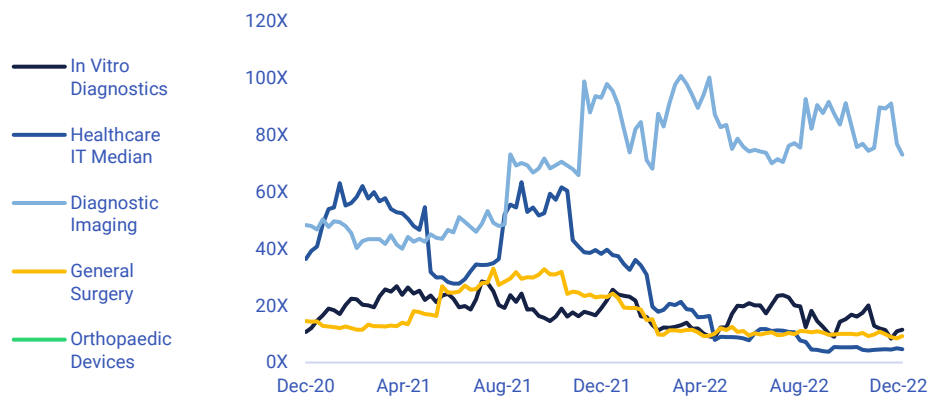
EV/Sales



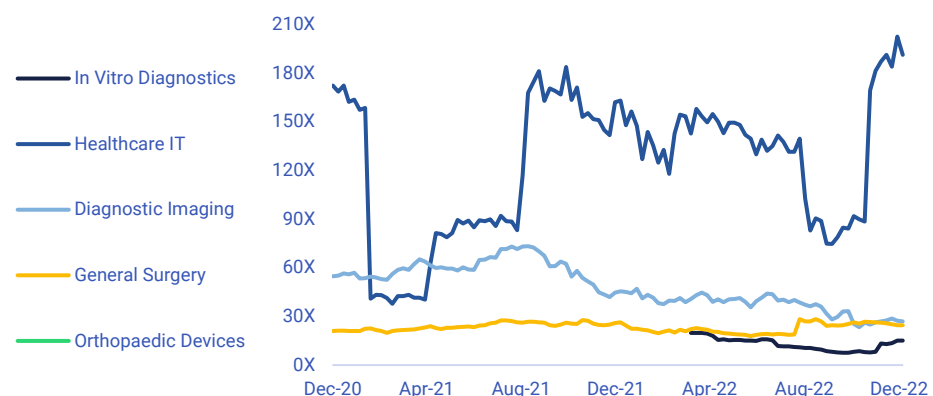
EV/EBITDA



EV/Sales



EV/EBITDA

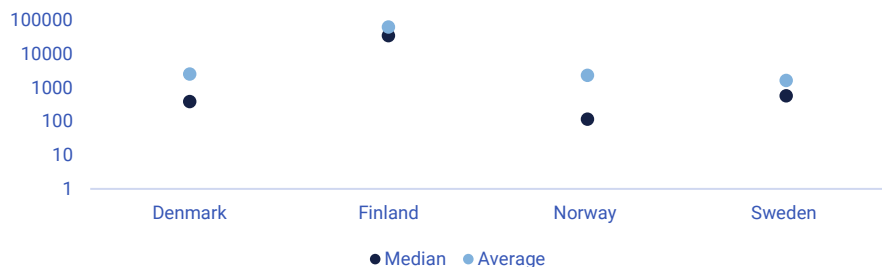


Valuations (MSEK): Denmark strong on health care companies

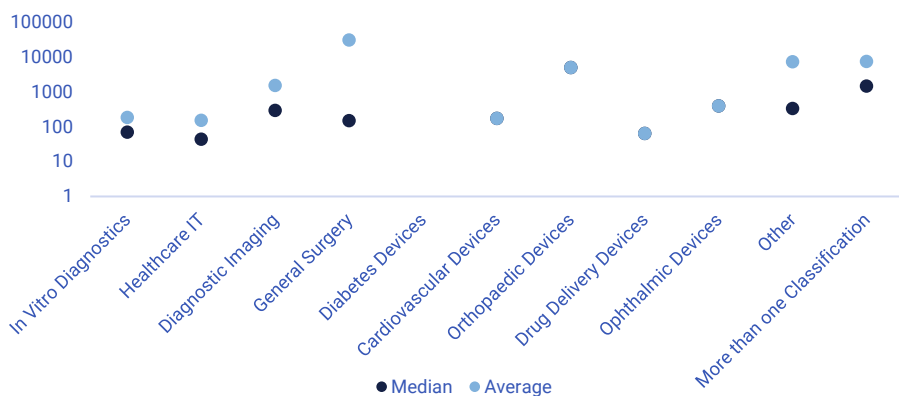
Medtech valuations with Denmark in the lead

- **Finnish** Medtech companies were, on average, valued highest, with **Denmark** in a distant second and **Sweden** last.
- **Bonesupport** was central again in pushing **orthopedic devices** to the highest median valuation. **General surgery** was on average valued most highly, although **Coloplast** is the outlier that made it happen.

Enterprise value by country (SEKm log scale)



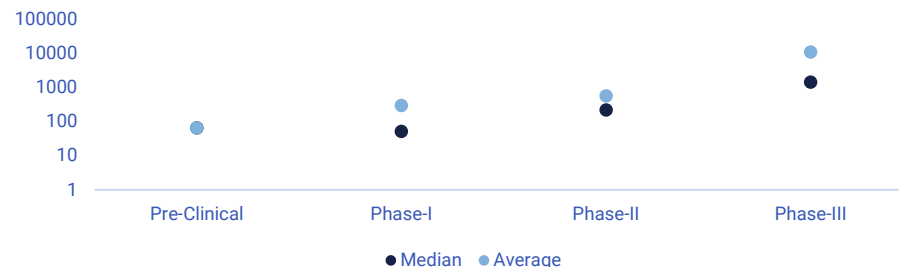
Enterprise value by vertical (SEKm log scale)



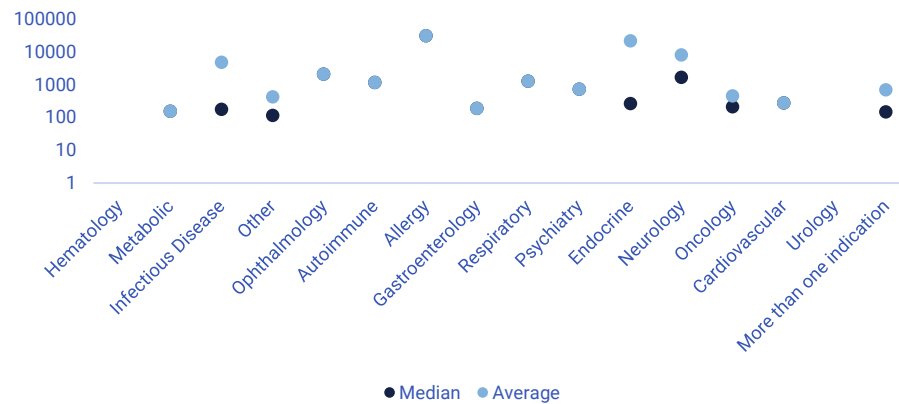
Biotech valuations, allergy and neurology pushing forward

- **Phase-III companies** were unsurprisingly valued the highest. **Pre-clinical** companies did surprise, however, reaching higher valuations than **Phase-I** companies in terms of median EV.
- **Alk-Abelló** sets the **allergy** indication highest in terms of EV, with **neurology** also becoming one of the more valued indications.

Enterprise value by phase (SEKm log scale)



Enterprise value by indication (SEKm log scale)



Share performance (%): A rough quarter for Nordic medtechs

Share issues, partnerships and missed reports

- **Invent Medic** came out in first place, with both **OssDsign** and **Duearity** in hot pursuit. **Q-linea** came in last with a sharp fall in October following a disappointing Q3 report.

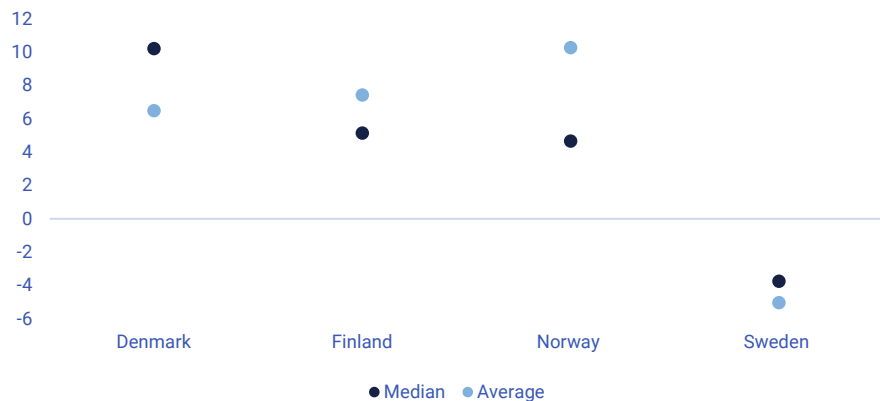
Strong quarter for Norway

- **Norway** was, on average, the best performer in the Nordics. **Sweden** came in last and was the only country in the red at an average of -4.8 per cent.

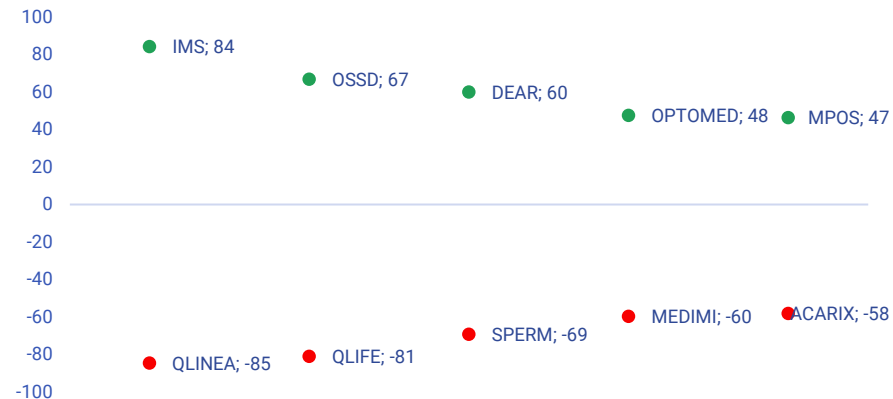
Neurology helped by BioArctic

- On average diagnostic imaging came out as the winner, with both **Lumito** and **Micropos** performing over 40 per cent each. **IVD** struggled during the quarter, as the previously glowing hot sector continued to cool off.

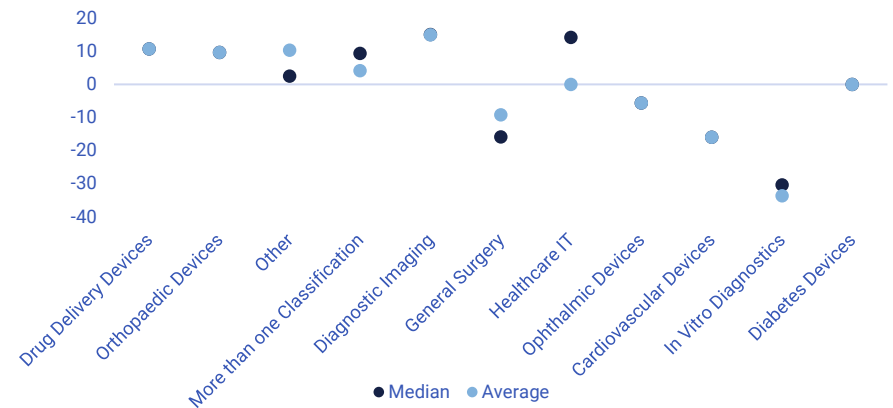
Median and average share performance per country (%)



Share performance, winners and losers (%)



Share performance by indication (%)



Performance quilts

Performance quilts – Divided by industry classification

| Average Share Performance | | | | | | | | |
|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|----------------------------------|
| Q4 2020 | Q1 2021 | Q2 2021 | Q3 2021 | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 |
| DRUG DELIVERY DEVICES 56 % | MORE THAN ONE CLASSIFICATION 21 % | ORTHOPAEDIC DEVICES 13 % | MORE THAN ONE CLASSIFICATION 18 % | DIAGNOSTIC IMAGING 20 % | HEALTHCARE IT 101 % | ORTHOPAEDIC DEVICES 15 % | DIAGNOSTIC IMAGING -16 % | DIAGNOSTIC IMAGING 15 % |
| IN VITRO DIAGNOSTICS 24 % | IN VITRO DIAGNOSTICS 15 % | MORE THAN ONE CLASSIFICATION 12 % | OTHER 15 % | OPHTHALMIC DEVICES 3 % | DIAGNOSTIC IMAGING -7 % | DIAGNOSTIC IMAGING -1 % | CARDIOVASCULAR DEVICES -18 % | DRUG DELIVERY DEVICES 10 % |
| DIAGNOSTIC IMAGING 14 % | DRUG DELIVERY DEVICES 13 % | OTHER 11 % | HEALTHCARE IT 6 % | ORTHOPAEDIC DEVICES 1 % | ORTHOPAEDIC DEVICES -11 % | CARDIOVASCULAR DEVICES -1 % | IN VITRO DIAGNOSTICS -18 % | OTHER 10 % |
| ORTHOPAEDIC DEVICES 10 % | OTHER 10 % | HEALTHCARE IT 6 % | IN VITRO DIAGNOSTICS 6 % | OTHER -1 % | GENERAL SURGERY -16 % | HEALTHCARE IT -15 % | OTHER -19 % | ORTHOPAEDIC DEVICES 6 % |
| OTHER 7 % | HEALTHCARE IT 8 % | GENERAL SURGERY 3 % | GENERAL SURGERY 3 % | GENERAL SURGERY -1 % | OTHER -16 % | MORE THAN ONE CLASSIFICATION -25 % | GENERAL SURGERY -21 % | MORE THAN ONE CLASSIFICATION 2 % |
| GENERAL SURGERY 4 % | CARDIOVASCULAR DEVICES 3 % | CARDIOVASCULAR DEVICES -2 % | DRUG DELIVERY DEVICES -1 % | MORE THAN ONE CLASSIFICATION -2 % | CARDIOVASCULAR DEVICES -28 % | IN VITRO DIAGNOSTICS -25 % | MORE THAN ONE CLASSIFICATION -21 % | HEALTHCARE IT 0 % |
| MORE THAN ONE CLASSIFICATION 2 % | GENERAL SURGERY -3 % | DIAGNOSTIC IMAGING -6 % | DIAGNOSTIC IMAGING -3 % | HEALTHCARE IT -5 % | IN VITRO DIAGNOSTICS -29 % | GENERAL SURGERY -26 % | ORTHOPAEDIC DEVICES -22 % | OPHTHALMIC DEVICES -6 % |
| HEALTHCARE IT -1 % | ORTHOPAEDIC DEVICES -12 % | IN VITRO DIAGNOSTICS -16 % | CARDIOVASCULAR DEVICES -8 % | CARDIOVASCULAR DEVICES -6 % | MORE THAN ONE CLASSIFICATION -29 % | OTHER -26 % | HEALTHCARE IT -29 % | GENERAL SURGERY -10 % |
| CARDIOVASCULAR DEVICES -8 % | DIAGNOSTIC IMAGING -17 % | DRUG DELIVERY DEVICES -30 % | ORTHOPAEDIC DEVICES -27 % | IN VITRO DIAGNOSTICS -11 % | DRUG DELIVERY DEVICES -31 % | OPHTHALMIC DEVICES -29 % | DRUG DELIVERY DEVICES -33 % | CARDIOVASCULAR DEVICES -16 % |
| DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DRUG DELIVERY DEVICES -17 % | OPHTHALMIC DEVICES -43 % | DRUG DELIVERY DEVICES -38 % | OPHTHALMIC DEVICES -54 % | IN VITRO DIAGNOSTICS -31 % |
| OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN |

| Average ROA | | | | | | | | |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|
| Q4 2020 | Q1 2021 | Q2 2021 | Q3 2021 | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 |
| CARDIOVASCULAR DEVICES -4 % | CARDIOVASCULAR DEVICES -6 % | ORTHOPAEDIC DEVICES -9 % | MORE THAN ONE CLASSIFICATION -6 % | OPHTHALMIC DEVICES 0 % | HEALTHCARE IT 101 % | OPHTHALMIC DEVICES 0 % | OPHTHALMIC DEVICES 0 % | GENERAL SURGERY 1 % |
| MORE THAN ONE CLASSIFICATION -5 % | ORTHOPAEDIC DEVICES -6 % | MORE THAN ONE CLASSIFICATION -7 % | CARDIOVASCULAR DEVICES -7 % | CARDIOVASCULAR DEVICES -3 % | OPHTHALMIC DEVICES 0 % | ORTHOPAEDIC DEVICES -5 % | CARDIOVASCULAR DEVICES -6 % | IN VITRO DIAGNOSTICS 0 % |
| ORTHOPAEDIC DEVICES -6 % | MORE THAN ONE CLASSIFICATION -7 % | CARDIOVASCULAR DEVICES -9 % | ORTHOPAEDIC DEVICES -8 % | ORTHOPAEDIC DEVICES -4 % | ORTHOPAEDIC DEVICES -7 % | CARDIOVASCULAR DEVICES -8 % | ORTHOPAEDIC DEVICES -6 % | OTHER -1 % |
| OTHER -17 % | OTHER -19 % | OTHER -15 % | OTHER -13 % | MORE THAN ONE CLASSIFICATION -10 % | CARDIOVASCULAR DEVICES -10 % | MORE THAN ONE CLASSIFICATION -13 % | MORE THAN ONE CLASSIFICATION -13 % | HEALTHCARE IT -1 % |
| DIAGNOSTIC IMAGING -17 % | IN VITRO DIAGNOSTICS -22 % | IN VITRO DIAGNOSTICS -15 % | IN VITRO DIAGNOSTICS -18 % | GENERAL SURGERY -14 % | DIAGNOSTIC IMAGING -14 % | DIAGNOSTIC IMAGING -15 % | OTHER -19 % | MORE THAN ONE CLASSIFICATION -4 % |
| IN VITRO DIAGNOSTICS -18 % | DIAGNOSTIC IMAGING -23 % | HEALTHCARE IT -18 % | GENERAL SURGERY -22 % | OTHER -17 % | MORE THAN ONE CLASSIFICATION -15 % | OTHER -17 % | DIAGNOSTIC IMAGING -23 % | DIAGNOSTIC IMAGING -10 % |
| HEALTHCARE IT -19 % | HEALTHCARE IT -24 % | GENERAL SURGERY -18 % | HEALTHCARE IT -25 % | HEALTHCARE IT -20 % | OTHER -21 % | GENERAL SURGERY -19 % | GENERAL SURGERY -27 % | Data not yet Available |
| GENERAL SURGERY -20 % | GENERAL SURGERY -25 % | DIAGNOSTIC IMAGING -19 % | DIAGNOSTIC IMAGING -27 % | IN VITRO DIAGNOSTICS -20 % | GENERAL SURGERY -23 % | IN VITRO DIAGNOSTICS -24 % | IN VITRO DIAGNOSTICS -28 % | Data not yet Available |
| DRUG DELIVERY DEVICES -28 % | DRUG DELIVERY DEVICES -41 % | DRUG DELIVERY DEVICES -41 % | DRUG DELIVERY DEVICES -44 % | DIAGNOSTIC IMAGING -20 % | IN VITRO DIAGNOSTICS -25 % | HEALTHCARE IT -27 % | HEALTHCARE IT -36 % | Data not yet Available |
| DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DRUG DELIVERY DEVICES -29 % | DRUG DELIVERY DEVICES -33 % | DRUG DELIVERY DEVICES -36 % | DRUG DELIVERY DEVICES -53 % | Data not yet Available |
| OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN |

| Average Sales growth | | | | | | | | |
|-----------------------------------|------------------------------------|------------------------------------|-----------------------------------|-------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| Q4 2020 | Q1 2021 | Q2 2021 | Q3 2021 | Q4 2021 | Q1 2022 | Q2 2022 | Q3 2022 | Q4 2022 |
| DIAGNOSTIC IMAGING 207 % | MORE THAN ONE CLASSIFICATION 189 % | MORE THAN ONE CLASSIFICATION 538 % | CARDIOVASCULAR DEVICES 270 % | MORE THAN ONE CLASSIFICATION 4412 % | IN VITRO DIAGNOSTICS 145 % | IN VITRO DIAGNOSTICS 13405 % | IN VITRO DIAGNOSTICS 371 % | MORE THAN ONE CLASSIFICATION 13 % |
| IN VITRO DIAGNOSTICS 143 % | HEALTHCARE IT 157 % | IN VITRO DIAGNOSTICS 171 % | IN VITRO DIAGNOSTICS 223 % | IN VITRO DIAGNOSTICS 246 % | DIAGNOSTIC IMAGING 110 % | DIAGNOSTIC IMAGING 1899 % | OTHER 299 % | GENERAL SURGERY 2 % |
| HEALTHCARE IT 104 % | DRUG DELIVERY DEVICES 105 % | ORTHOPAEDIC DEVICES 159 % | ORTHOPAEDIC DEVICES 136 % | HEALTHCARE IT 193 % | MORE THAN ONE CLASSIFICATION 49 % | MORE THAN ONE CLASSIFICATION 131 % | HEALTHCARE IT 75 % | OTHER 1 % |
| DRUG DELIVERY DEVICES 76 % | IN VITRO DIAGNOSTICS 65 % | HEALTHCARE IT 127 % | OTHER 62 % | DRUG DELIVERY DEVICES 183 % | ORTHOPAEDIC DEVICES 44 % | HEALTHCARE IT 97 % | ORTHOPAEDIC DEVICES 57 % | IN VITRO DIAGNOSTICS 0 % |
| OTHER 48 % | OTHER 50 % | OTHER 36 % | HEALTHCARE IT 61 % | ORTHOPAEDIC DEVICES 56 % | HEALTHCARE IT 42 % | ORTHOPAEDIC DEVICES 51 % | GENERAL SURGERY 45 % | HEALTHCARE IT -1 % |
| MORE THAN ONE CLASSIFICATION 36 % | GENERAL SURGERY 42 % | GENERAL SURGERY 17 % | MORE THAN ONE CLASSIFICATION 54 % | OTHER 23 % | OTHER 8 % | CARDIOVASCULAR DEVICES 24 % | MORE THAN ONE CLASSIFICATION 40 % | DIAGNOSTIC IMAGING -6 % |
| ORTHOPAEDIC DEVICES 11 % | ORTHOPAEDIC DEVICES 7 % | DRUG DELIVERY DEVICES -11 % | GENERAL SURGERY 23 % | GENERAL SURGERY 0 % | OPHTHALMIC DEVICES 0 % | DRUG DELIVERY DEVICES 22 % | DIAGNOSTIC IMAGING 37 % | Data not yet Available |
| GENERAL SURGERY -6 % | CARDIOVASCULAR DEVICES -8 % | CARDIOVASCULAR DEVICES -20 % | DIAGNOSTIC IMAGING -18 % | OPHTHALMIC DEVICES 0 % | GENERAL SURGERY -3 % | GENERAL SURGERY 19 % | CARDIOVASCULAR DEVICES 34 % | Data not yet Available |
| CARDIOVASCULAR DEVICES -7 % | DIAGNOSTIC IMAGING -10 % | DIAGNOSTIC IMAGING -37 % | DRUG DELIVERY DEVICES -39 % | CARDIOVASCULAR DEVICES -4 % | CARDIOVASCULAR DEVICES -6 % | OTHER 7 % | DRUG DELIVERY DEVICES 17 % | Data not yet Available |
| DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIAGNOSTIC IMAGING -17 % | DRUG DELIVERY DEVICES -40 % | OPHTHALMIC DEVICES -38 % | OPHTHALMIC DEVICES 0 % | Data not yet Available |
| OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | OPHTHALMIC DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN | DIABETES DEVICES NAN |

Performance quilts

Performance quilts – Divided by country

| Q4 2020 | | Q1 2021 | | Q2 2021 | | Q3 2021 | | QTD Performance Q4 2021 | | Q1 2022 | | Q2 2022 | | Q3 2022 | | Q4 2022 | |
|------------------------|-----------------------|------------------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------------|-----------------------|------------------------|------------------------|-------------------------|-------------------------|------------------------|-----------------------|
| Finland (Primary) 43 % | Norway (Primary) 39 % | Finland (Primary) 20 % | Norway (Primary) 11 % | Norway (Primary) 7 % | Denmark (Primary) -16 % | Norway (Primary) -16 % | Finland (Primary) -12 % | Denmark (Primary) 10 % | Denmark (Primary) 13 % | Denmark (Primary) 32 % | Sweden (Primary) 6 % | Sweden (Primary) 11 % | Finland (Primary) -2 % | Finland (Primary) -21 % | Sweden (Primary) -21 % | Sweden (Primary) -21 % | Finland (Primary) 7 % |
| Sweden (Primary) 8 % | Sweden (Primary) 7 % | Denmark (Primary) 4 % | Denmark (Primary) 2 % | Sweden (Primary) -3 % | Sweden (Primary) -21 % | Finland (Primary) -27 % | Denmark (Primary) -21 % | Norway (Primary) 6 % | Norway (Primary) -4 % | Finland (Primary) -11 % | Norway (Primary) -8 % | Finland (Primary) -6 % | Denmark (Primary) -5 % | Norway (Primary) -44 % | Denmark (Primary) -32 % | Norway (Primary) -24 % | Sweden (Primary) -6 % |

| Q4 2020 | | Q1 2021 | | Q2 2021 | | Q3 2021 | | QTD ROA Q4 2021 | | Q1 2022 | | Q2 2022 | | Q3 2022 | | Q4 2022 | |
|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|
| Denmark (Primary) 3 % | Denmark (Primary) -1 % | Denmark (Primary) 6 % | Denmark (Primary) 3 % | Finland (Primary) -1 % | Finland (Primary) -1 % | Finland (Primary) 6 % | Norway (Primary) 0 % | Denmark (Primary) 2 % | Norway (Primary) -5 % | Finland (Primary) -5 % | Norway (Primary) -4 % | Norway (Primary) 1 % | Norway (Primary) -5 % | Denmark (Primary) -10 % | Norway (Primary) -1 % | Finland (Primary) 0 % | Data not yet Available |
| Finland (Primary) -6 % | Norway (Primary) -6 % | Finland (Primary) -5 % | Finland (Primary) -5 % | Denmark (Primary) -6 % | Norway (Primary) -11 % | Denmark (Primary) -6 % | Denmark (Primary) -12 % | Data not yet Available | Sweden (Primary) -18 % | Sweden (Primary) -21 % | Sweden (Primary) -17 % | Sweden (Primary) -20 % | Sweden (Primary) -18 % | Sweden (Primary) -23 % | Sweden (Primary) -22 % | Sweden (Primary) -26 % | Sweden (Primary) -2 % |

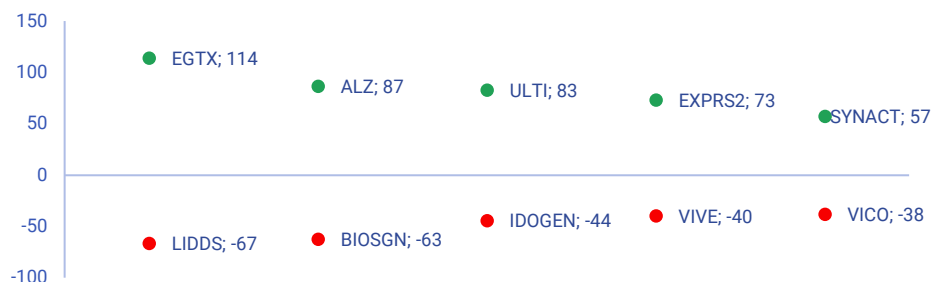
| Q4 2020 | | Q1 2021 | | Q2 2021 | | Q3 2021 | | QTD Sales Growth Q4 2021 | | Q1 2022 | | Q2 2022 | | Q3 2022 | | Q4 2022 | |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|--------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Sweden (Primary) 70 % | Norway (Primary) NaN | Norway (Primary) NaN | Sweden (Primary) 99 % | Norway (Primary) NaN | Sweden (Primary) 65 % | Sweden (Primary) NaN | Sweden (Primary) NaN | Sweden (Primary) 5 % | Denmark (Primary) 49 % | Denmark (Primary) 67 % | Denmark (Primary) 75 % | Finland (Primary) 37 % | Sweden (Primary) 100 % | Finland (Primary) 17 % | Norway (Primary) 52 % | Denmark (Primary) 18 % | Denmark (Primary) 3 % |
| Finland (Primary) 1 % | Sweden (Primary) 52 % | Sweden (Primary) 66 % | Norway (Primary) 28 % | Finland (Primary) 19 % | Norway (Primary) 17 % | Finland (Primary) 22 % | Finland (Primary) 3 % | Data not yet Available | Norway (Primary) -18 % | Finland (Primary) 4 % | Finland (Primary) 35 % | Denmark (Primary) 19 % | Denmark (Primary) -15 % | Denmark (Primary) 0 % | Denmark (Primary) -4 % | Norway (Primary) -14 % | Data not yet Available |

Share performance (%): A rough quarter for Nordic Biotechs

Egetis and Alzinova on top

- **Egetis** stood out as the only share to double in price during the quarter, closely followed by **Alzinova**. Among the losers, we have **LIDDS** and **Biosergen**, both losing more than 60 % as funding and development woes weighed on the share prices.

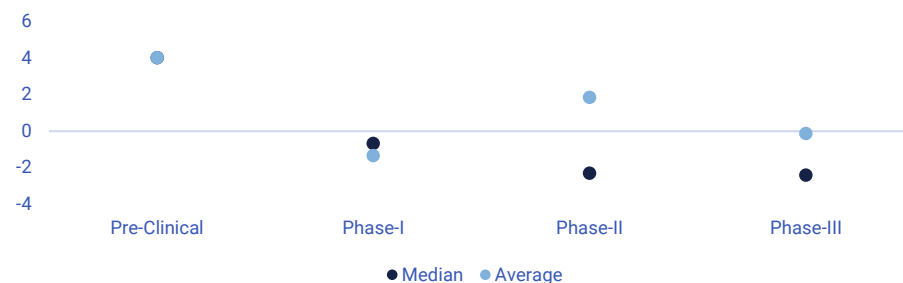
Share performance, winners and losers (%)



Phase-II companies spreading apart

- **Pre-clinical** and **phase-II** companies managed to edge out the competition and had many winners; **Nanexa** for the former and **Egetis** for the latter. Worth noting, however, is that **phase-II** also had the most significant spread between winners and losers.

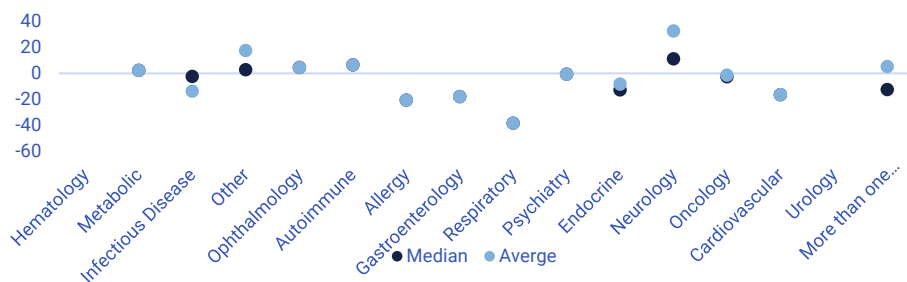
Share performance by phase (%)



Neurology helped by BioArctic

- Although **BioArctic** rocketed over 180 per cent just before Q4, it still helped push **Neurology** into the number 1 slot. Other indications trailed, notably the **respiratory** indication, weighed down by **Vicore**.

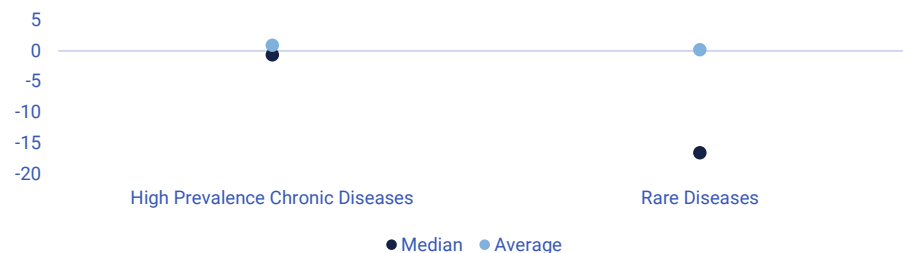
Share performance by indication (%)



Strong movers were rare among RD-companies

- **HPCD** companies just barely managed to edge out **RD**-companies when it comes to average performance. **RD**-companies also sported higher standard deviation, possibly due to higher average debt-ratios.

Share performance, high prevalence vs. rare disease



Performance quilts

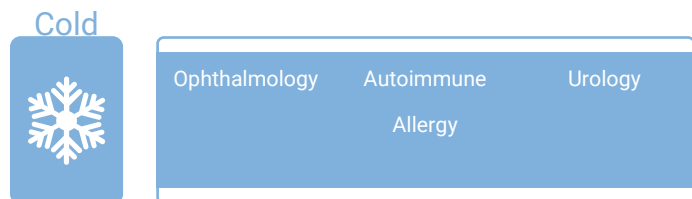
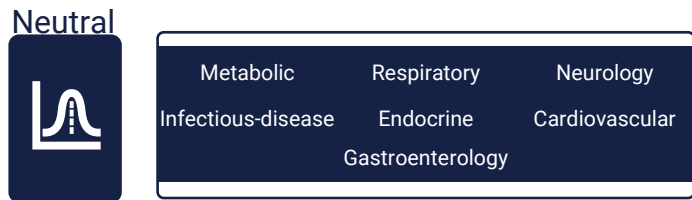
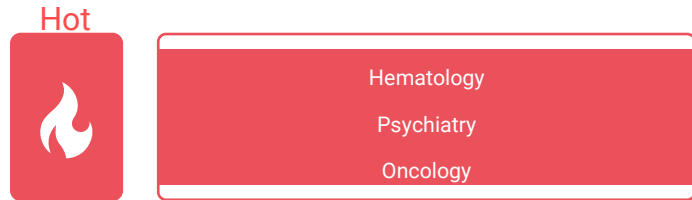
Performance quilts – Divided by indication, phase and prevalence



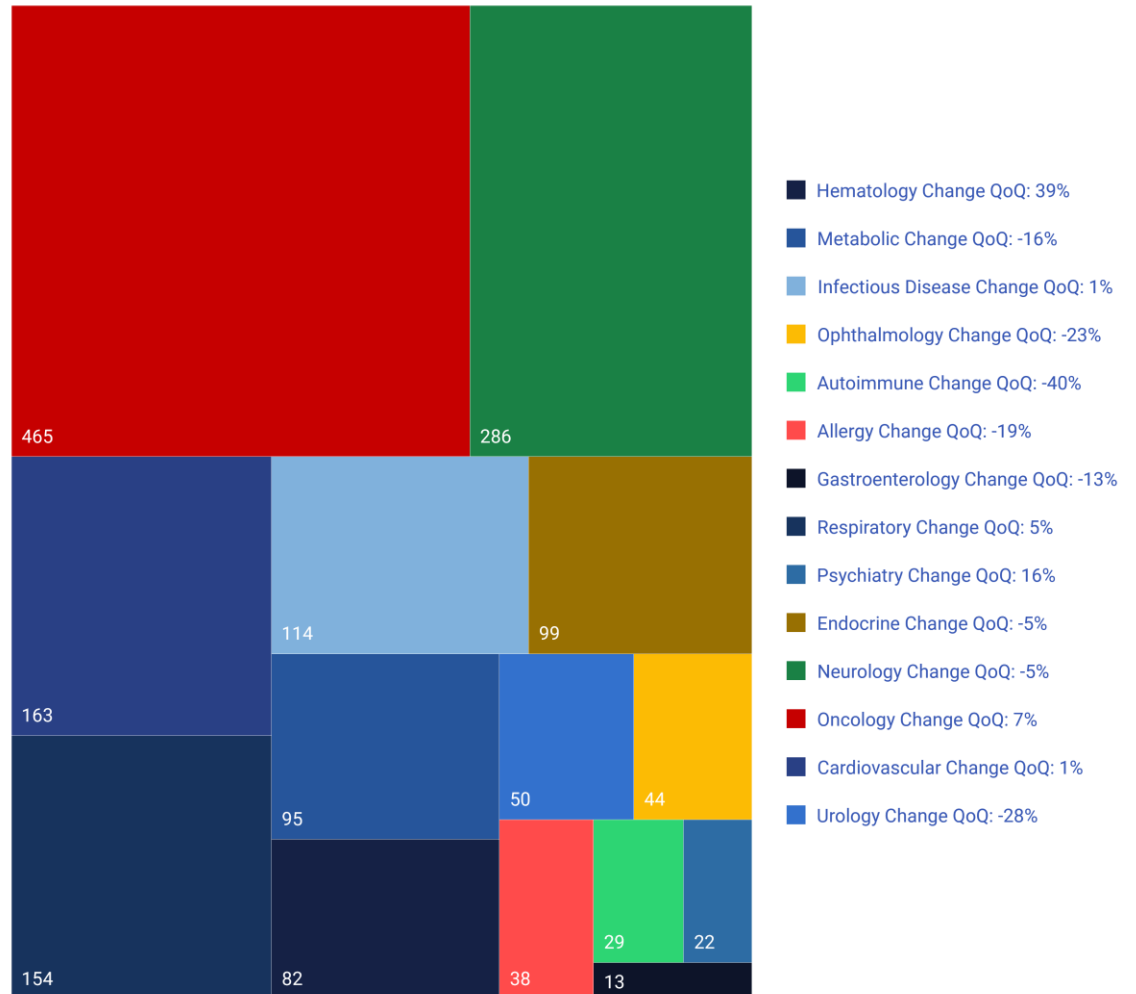
Sources: S&P Capital IQ and Carlsquare Equity Research

The great Indication game

What are the hottest indications right now?













US Clinical trials – study starts during the quarter and % change QoQ













Incoming triggers and catalysts within the biotech sector

Incoming triggers and catalysts within the biotech sector

| |  Phase |  Disease Area |  Indication |  Incidence |  Probability of success |  Catalyst date |  Comment |
|--|---|--|--|---|--|---|--|
|  | 2 | Oncology | HPV16-positive cervical cancer | High Incidence | Improbable | Q1 2023 | Updated interim data from the primary phase-II study is to be released. It is possible that positive results could lead to further indication expansions |
|  | BLA-submission | Ophthalmology | Age-related macular degeneration | Chronic High incidence | Probable | Q1 2023 | Originally meant to be submitted during Q4 2022, the delayed BLA-submission to the FDA for Ximluci might see approval moved to 2024. |
|  | 3 | More than one indication | IgA Nephropathy (Berger's Disease) | Rare Disease | Probable | H1 2023 | While 2022 saw the share price struggle to remain above 100 SEK, a positive conclusion to the NefigArd study might push it past the boundary |

Incoming earnings calls within the medtech sector

Incoming earnings calls within the medtech sector

| |  Stage |  Sub-sector |  Indication |  Average ramp |  Average 3d move |  Earnings date |  Comment |
|--|---|--|--|--|---|---|---|
|  | Profitable | More than one Classification | Dental, orthopaedic, diagnostic and hearing devices | 0.2 % | 2.1 % | 23/02/2023 | Elos medtech together with it's new CEO performed in the third quarter. Investors will be looking forward to whether seasonality effects will boost the year-end report. |
|  | Revenue | Other | Wearable muscle strengthening systems | 3.5 % | -9.1 % | 22/02/2023 | With great results in the iHand study, a rights issue and the decision to outsource production to save costs, the fourth quarter looks to be a volatile one. |
|  | Profitable | More than one Classification | Radiotherapy and neurosurgery devices | -5.7 % | - 1.8 % | 24/02/2023 | One of the most shorted shares on the Swedish stock exchange there is a lot of pressure. With positive news in December, the report might boost the already strong YTD performance. |