

Initial Research

2020-01-29

ViroGates: A suPARhighway to health

- A simple blood test to immensely improve clinical decision making
- Global market opportunities and virtually no competition
- We see a fair value of DKK 68.00 – 100.50 per share in Acute Care alone

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Stock ticker:	VIRO
Industry:	MedTech
Listed on:	First North Copenhagen
Latest stock price (DKK):	59,00
Market cap (MDKK):	179,0
Enterprise Value (MDKK):	128,9
Total number of shares (M):	3,03
- of which free float (M):	1,64

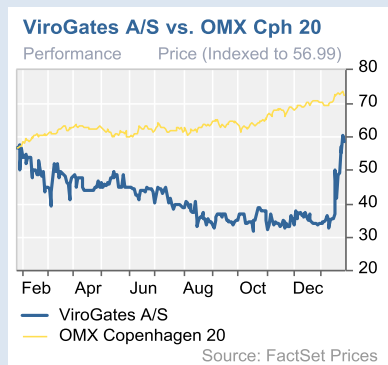
VHCF fair value per share

DCF model DKK 68,00 - 100,50

ViroGates A/S
Address: Banevænget 13
DK-3460 Birkerød, Denmark
Webpage: virogates.com
CEO: Jakob Knudsen

Main owners (31 Dec 2019)	Capital (%)
N. P. LOUIS-HANSEN APS.	24,25%
KIM GINNERUP APS	10,74%
4AM APS	10,74%
JEO Holding ApS	5,07%

Stock price history



	-1m	-3m	-12m
Change (%)	72,9	55,1	3,2
52 w k range (Low /Hi) - DKK	30,3 / 63,8		

Source: FactSet

ViroGates has developed a prognostic biomarker, suPARnostic®, that can assist physicians in deciding which patients need immediate attention and which patients can safely be discharged from hospital. This is achieved by measuring the level of suPAR from a quick blood sample. Further out, suPARnostic® could become an important aid in motivating and reinforcing lifestyle changes in currently healthy individuals, hindering the development of lifestyle-related diseases years later.

A huge body of research supports the efficacy of the method. The solution contributes to significant efficiency gains in the healthcare system, which are acutely needed as several societal megatrends are putting increasing strain on the health sector. The company is also well protected from competition by a combination of technical leadership and patents.

ViroGates is in the early stage of commercialization, with six hospitals currently labelled routine clinical customers and another 36 hospitals in pilot programmes. We expect an interesting near-term news flow with more routine as well as pilot customers and ViroGates' technology becoming validated on several new hospital analyzer platforms.

The organization is lean with many outsourced functions, pointing to high potential operating margins. In our economic scenario, the EBITDA margin gradually grows to 50 percent over the next five years. We expect the first net profit in 2022 and regard the current cash holdings as sufficient until the company becomes self-financing through profits.

Our DCF model suggests a fair value range for the stock price of DKK 68.00 – DKK 100.50 given our current view of the risk and including only the Acute Care market in our model. We see potential for further valuation upgrades when the company has overcome certain risks and when it gets closer to addressing other market segments.

Table 1: Financial Overview

MDKK	2 018	2019e	2020e	2021e	2022e
Net sales	3,3	4,2	8,3	30,7	52,3
Growth (%)	na	26,8%	98,0%	269,1%	70,1%
Gross margin (%)	90,6%	88,7%	80,0%	80,0%	79,9%
EBIT	(18,1)	(17,1)	(21,4)	(6,7)	8,0
EBIT margin (%)	neg	neg	neg	neg	15,3%
Cash holdings	60,1	40,5	18,1	2,6	6,3
Total assets	63,4	48,2	24,4	17,3	25,4
Total equity	61,0	44,5	22,8	15,8	23,5
Solidity (%)	96,2%	92,3%	93,4%	91,1%	92,4%
P/E	neg	neg	neg	neg	18,9
ROE	neg	neg	neg	neg	32,8%
EV/EBIT (x)	neg	neg	neg	neg	11,9
EV/Sales (x)	28,7	22,6	11,4	3,1	1,8

Source: Västra Hamnen Corporate Finance

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Separates acute cases from the non-acute

What does ViroGates do?

ViroGates is a Danish medical technology company listed on Nasdaq First North Copenhagen. The company has developed a range of products, collectively referred to as suPARnostic®, that enable physicians to quickly determine if a patient is severely sick and in need of acute care, or outside imminent danger and can be sent home. All it takes is a quick blood test. The same test can even be used to determine the risk of developing serious, lifestyle-related diseases as far as ten years into the future. The test can therefore also be used to motivate and monitor lifestyle changes in order to avoid disease development.

Huge potential savings in the healthcare system

Adoption of suPARnostic® testing at hospitals and other health services could lead to quicker and more accurate decision making, saving tens of billions of EUR in healthcare costs and improving outcomes for millions of patients.

The suPARnostic® method entails in vitro analysis of blood samples using either the typical analysis platforms found in many hospital labs, or on a standalone optical reader supplied by ViroGates. In 20 minutes or less, the test will reveal the concentration of a protein called suPAR in the blood. According to a strong body of research, suPAR is a protein expressed when inflammation is present in the body. Inflammation is one of the fundamental mechanisms for the body to react to serious disease, and a quick measurement of the suPAR level will immediately reveal the severity of a patient's condition. A high suPAR level means a need for acute measures to diagnose and treat or prevent further disease progression. On the other hand, if the level of suPAR is low, the physician is justified in sending the patient home. Measuring suPAR will save money and resources for the healthcare system, increase confidence in clinical decision making for physicians, while the patient is spared the inconvenience and worry of an unnecessary hospital stay as well as the risk of contracting hospital-acquired infections.

Several megatrends play in ViroGates' favour

Several major societal trends emphasize the need for ViroGates' solution:

- Aging populations imply more people in need of long-term care, leading to higher healthcare spending
- Chronic and infectious diseases are increasing, putting considerable demand on the healthcare system and society as a whole
- A shortage of skilled doctors, nurses and other healthcare staff. WHO predicts a shortage of 12.9 million healthcare professionals globally in 2035
- Patients are demanding sophisticated, convenient, transparent, affordable and personalized service and becoming more willing to self-manage

Overcrowding of hospitals strains the healthcare system

Overcrowding of hospitals, and emergency departments in particular, is a common problem and is considered a national crisis in some nations. Research has shown that there is a direct link between hospital overcrowding and short-term patient mortality. Therefore, it is crucial to handle incoming patient flows in the most resource-efficient way. Most of the existing tests and risk scoring systems that assist medical staff on hospital admission are either time-consuming, complicated or disease-specific.

suPAR tests lead to shorter hospital stays

ViroGates' suPARnostic® products have a proven effect on improving the use of healthcare resources. A recent study showed that in hospitals where the level of suPAR was measured, patients stayed in hospital on average 6.5 hours shorter relative to the control group (where suPAR was not measured). There was no difference in mortality between the groups. ViroGates estimates that this efficiency improvement could lead to healthcare savings exceeding EUR 27 billion per year, counting only selected EU countries and the US.

Level of suPAR correlates positively with immune activation

The suPAR solution

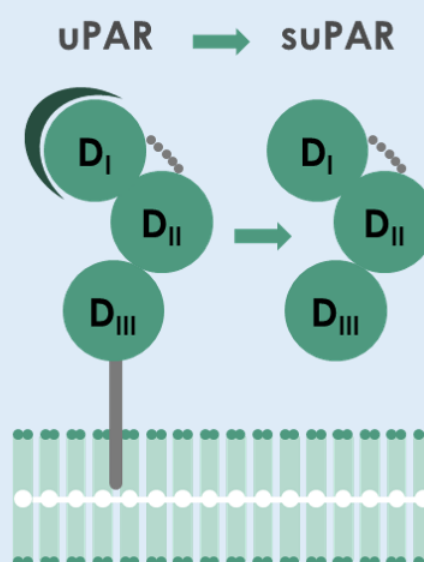
Soluble urokinase Plasminogen Activator Receptor, or suPAR, is a protein present in the human bloodstream. The existence of suPAR was first described in 1991, but it was not until a decade later it was found to be predictive of disease. In 2000, the inventor and co-founder of ViroGates, Jesper Eugen-Olsen, discovered the potential of measuring suPAR in patients diagnosed with HIV. Since then, it has been discovered that the level of suPAR is also elevated and therefore predictive of outcome in other diseases such as malaria, tuberculosis, streptococcus pneumonia, pneumococcal pneumonia, sepsis, and bacterial and viral CNS infection, among many other diseases.

There are now more than 600 peer-reviewed articles on suPAR and its ability to measure both the severity and the progression of diseases. The level of suPAR can also be used for the prediction of lifestyle-related diseases, such as cardiovascular disease, type-2 diabetes, cancer, etc. However, the suPAR level is not affected by short-term life circumstances, e.g. fasting, and neither is it affected by minor illnesses, such as influenza.

How does suPAR work?

suPAR is an abbreviation for **s**oluble **u**rokinase **P**lasminogen **A**ctivator **R**eceptor and as the name suggests, is the soluble form of the receptor (uPAR) for urokinase plasminogen activator (uPA). The uPAR molecule is a multi-domain protein which is attached to various immunologically active cells, e.g. white blood cells. The uPAR is tethered to the cell membrane with a glycosyl phosphatidylinositol (GPI) anchor. uPAR is a part of the plasminogen activation system, which in the healthy body is involved in tissue reorganization events such as mammary gland involution and wound healing.

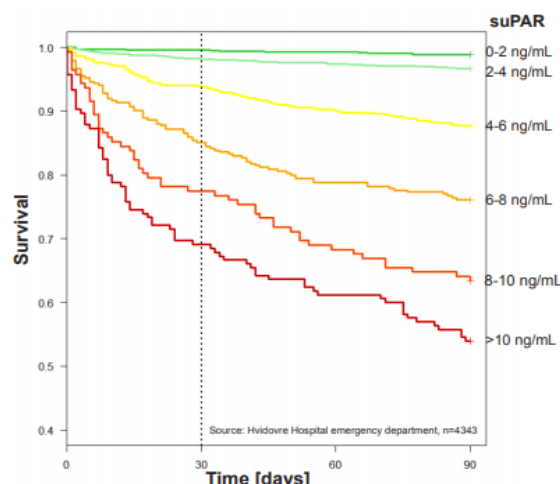
Any severe illness will lead to inflammation of the involved tissue, which in turn is shown to increase the occurrence of plasminogen activators such as uPA. When the uPA enters the blood stream it will bind to the receptor, triggering a cleavage between the GPI anchor and the uPAR and thereby releasing the soluble form suPAR. The suPARnostic® products work by exposing blood or plasma samples to a solution containing ViroGates' proprietary antibodies. After reacting with the antibodies, suPAR is readily detected using standard immuno-assay technology. It provides a reliable measurement of the concentration of suPAR in the blood, which will reveal the severity of inflammation and thus the risk profile of the patient.



Provides a prognosis of mortality risk

Studies have shown that the level of suPAR is highly associated with short-term mortality in several acute, but also chronic, diseases found in the general population. This makes it a prognostic, and not diagnostic, biomarker, since it provides information about the mortality risk of the tested individuals but not its exact cause. The level of suPAR in the bloodstream has strong predictive power over the 30-day, 60-day, 90-day, and even 1-year patient mortality. In addition, an elevated suPAR in healthy individuals is predictive of development of a range of diseases, including cancer, cardiovascular, kidney and diabetes within the next 10 years. As can be seen in Figure 1 on the right, the 90-day mortality rate for a patient with a suPAR level ng/ml is close to 50 percent, compared to less than two percent in patients with a suPAR level below 4.

Figure 1: Survival rates for different levels of suPAR



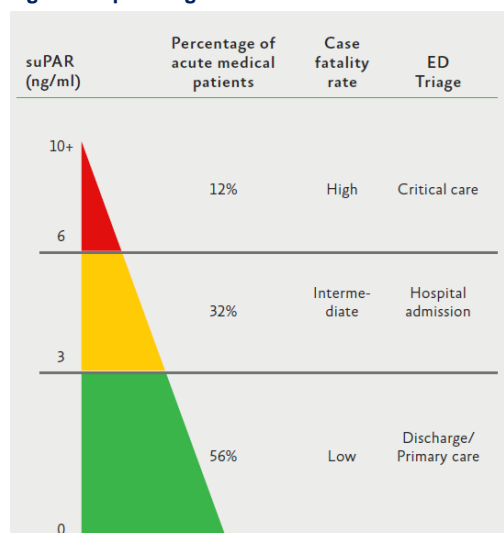
Source: suPAR Monograph Feb 2016

above 10

Provides support for making clinical decisions

Published articles show that patients with a suPAR level of 3.0 ng/ml or less are considered healthy, with no or low activation of the immune system. These patients can be sent home without hospitalization. A measurement between 3.0 and 6.0 ng/ml indicates potential infection or high level of inflammation, and the patient would be admitted to a hospital for further investigation. A measurement above 6.0 ng/ml is indicative of critical illness in the patient, with high short-term mortality risk. In this case the patient would be admitted to a critical care unit for acute care and further examination.

Figure 2: Specific guidelines for suPAR level



Source: ViroGates A/S

Product offering

ViroGates' product portfolio, suPARnostic®, is adapted to the needs in the healthcare sector, whether the tests are performed locally at the point-of-care (e.g. emergency departments), at central laboratories in hospitals, or for R&D/clinical laboratory use. The company's suPARnostic® products are the only CE approved in vitro diagnostic products for clinical determination of suPAR in human plasma and serum.

suPARnostic® TurbiLatex

The suPARnostic® TurbiLatex was introduced to the market in late 2018 and is used in automated and centralized hospital labs. Compared to the earlier products, it has the advantage of being able to run on the same blood sample as any other tests the hospital needs to take on the patient. Once the blood sample is fed into the hospital lab's biochemistry analyzer, the suPAR test will run alongside any other tests. This means no extra work is needed from the clinical chemistry lab and it fits well into many emergency departments' existing work flow. The TurbiLatex has been vali-



Runs alongside on same blood sample as other blood tests

dated for use with the Roche cobas platform and Siemens Healthineers ADVIA® XPT analyzers. The underlying assay can be adapted to any turbidimetric platform and ViroGates is currently working to have the product approved for use on other platforms such as Siemens Atellica, Abbott Architect and Abbott Alinity.

Test results in only 20 minutes

suPARnostic® Quick Triage

The suPARnostic® Quick Triage product was introduced to the market in 2015 and offers an easy-to-use test that gives a quick and reliable suPAR result between 2-16 ng/ml. Quick Triage is designed for on-site testing in emergency rooms, small hospitals and other sites without laboratory access. The test is instead run on a standalone device called suPARnostic® Quick Test optical reader. The device is sourced from QIAGEN (The QIAGEN aLF Reader - www.alf-reader.com) but adapted to Quick Triage and supplied to customers by ViroGates. The tests run on blood plasma, meaning blood samples must go through centrifuge separation first. The suPAR result is then produced in 20 minutes.



New version of Quick Triage in development

In February 2019, ViroGates announced a co-development agreement with another device manufacturer, GEN SPEED, to develop a device for an improved version of Quick Triage. The device will enable a combined suPAR and CRP point-of-care triage test for use in hospitals, general practitioners and ambulances. Using blood from a simple pinprick instead of using blood plasma, the ambition is to produce test results in less than 10 minutes.

For use in central laboratories and in research

suPARnostic® ELISA Assay kits

The suPARnostic® ELISA kit is primarily meant to be used at central laboratories and in research as the testing time is in many cases considered too slow for use at the point-of-care. The tests take up to 1½ hours and involve a measure of manual labour. The ELISA is a well-proven technology platform and is stable, accurate and reliable. It can be used with limited need for additional equipment and it enables processing of hundreds or thousands of samples simultaneously.



Currently 6 clinical routine customers

Business strategy and go-to-market plan

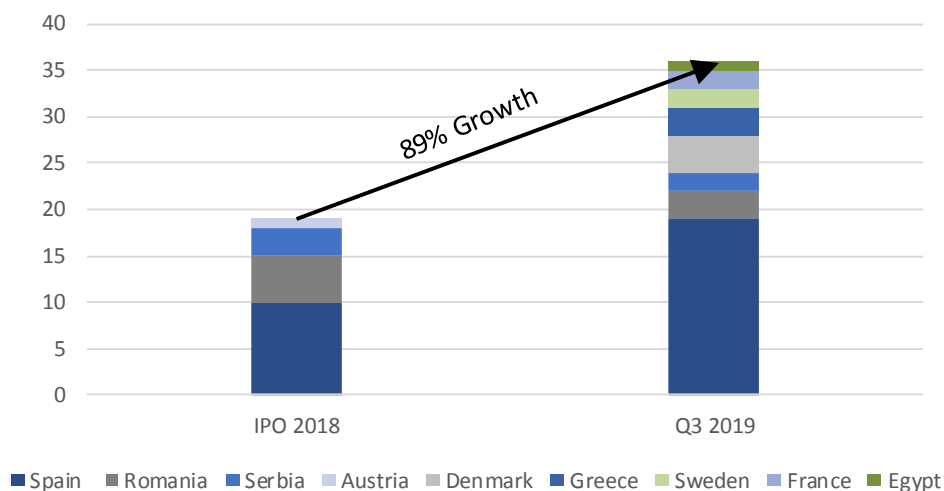
The commercialization phase of the suPARnostic® product line is initially directed at the European Acute Care market. In December 2019, the company announced that two hospitals in Denmark had implemented suPAR in their clinical procedure. The two hospitals, Kolding and Vejle, have a total of 360 hospital beds and are part of a hospital group with an uptake population of 300 000 people. In September, ViroGates reported that the University Hospital Montpellier, France had implemented suPAR in their clinical procedures. All three new customers will be using suPARnostic® TurbiLatex with the cobas system from Roche. With these three new hospitals, the company has a total of six clinical routine customers.

Direct sales strategy for selected Acute Care markets

ViroGates adopts a direct sales strategy for selected Acute Care markets in Europe. So far, these efforts have resulted in 36 hospitals using suPARnostic in pilot programmes, spread across Spain (19), Denmark (4), Greece (3), Romania (3), Serbia (2), Sweden (2), France (2) and Egypt (1). ViroGates have found that the sales process is easier in Southern and Eastern European markets because their hospital hierarchies differ from hospitals in Northern Europe. In the north, physicians and laboratory staff usually have an equal say in the selection of analysis procedures, meaning that both departments must be convinced for the hospital to adopt a new solution. In the south, laboratory departments often see themselves as servicing the medical staff, and hence the medical staff has a larger say in the choice of new equipment and processes. In these hospitals there is only one party to convince before

a pilot can start. However, since the launch of TurbiLatex in Q3 2018 this difference should lose importance since the new product implies minimal extra handling at the laboratory.

Figure 3: Hospitals in pilot use



Source: ViroGates A/S

For several other countries in the European market and the rest of the world, ViroGates deploys a strategy based on distributors, with the ambition of investing heavily in educating and supporting the network of distributors.

9-12 months run-in period

The company has a communicated a road map for penetrating the European market. In the road map ViroGates assumes a run-in period for trial hospitals of 9-12 months before the customer is converted into a clinical routine customer. This is offered in order to show the customer that they can handle the product in daily use and to convincingly demonstrate improved clinical outcomes from the use of suPARnostic®.

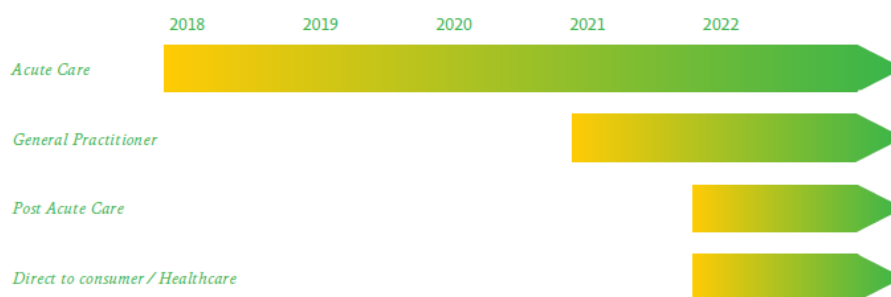
After ViroGates has established a foothold in the European market, the next geography to be addressed is North America. The first step to entering the American market is a Pre-IDE meeting with the US medicinal authorities FDA. Building on experiences from Europe and its plans for clinical studies in America, ViroGates will have a data package for the FDA to consider. As the company is currently fully occupied with rolling out its products in the European market, we don't expect this meeting to take place any time soon.

Possible US partnership

After getting the FDA approval, it is likely that ViroGates will partner up with an integrated health organization operating both insurance planning and hospitals. Such organization will have a strong incentive to implement ViroGates' products in a clinical setting as the savings will benefit the overall insurance plan.

Ambition of 40 clinical routine customers by end of the year

After addressing the Acute Care market, ViroGates plans to expand its sales strategy into several other market segments. These include Post-Acute Care, General Practitioners and Direct-to-Consumer. The different segments and the timing of the planned commercialization are illustrated in Figure 4 below. The strategic ambition is to reach about 40 clinical routine customers, in several European countries, by the end of 2020. The company has also expressed a financial objective to become cashflow positive during the same timeframe.

Figure 4: Commercialization timeline

Source: ViroGates A/S

Company and Key Personnel

ViroGates has its headquarters in Birkerød, north of Copenhagen. Currently, there are eleven full-time employees and two part-time employees. Another five full-time employees work at ViroGates' contracted lab in Poland. In addition, ViroGates has entered into consultancy agreements with two consultants active within sales and regulatory functions. Various processes, with respect to manufacturing and supply chain, have been outsourced in order to reduce the need for fixed laboratory facilities, capital expenditures and personnel.

Mr Jakob Knudsen is the CEO since 2011. He holds a Master of Law degree and an MBA. He has more than 25 years' experience in life science, with a broad expertise spanning many business areas, such as finance, commercial operations, sales and marketing. He was previously the CCO & CFO of Egalet Ltd (now Zyla Life Sciences), which is a life science company developing products for pain and inflammation.

Mr Mark Christian Hvidberg da Silva is the CFO since September 2019. He was previously a manager at the management consulting company QVARTZ (now acquired by Bain & Company), where he was heading several client projects within corporate strategy, M&A and commercial excellence, primarily in Europe and North America.

Dr. Lars Kongsbak is Chairman of the Board since 2015. He is also the President and CEO of Samplix ApS. He holds a M.Sc. in biology and a Ph.D. in molecular biology. He has experience from being the President and CEO of a former listed biopharmaceutical company as well as experience within financing, M&A and business development.

Dr. Jesper Eugen-Olsen is a co-founder of ViroGates and has been CSO of the company since 2001. He holds a Ph.D. in biochemistry and has more than 30 years of research experience and is considered a pioneer in suPAR research. He has authored more than 70 peer reviewed papers on suPAR and is the inventor of several patents related to suPAR.

Owners and Financing

ViroGates has three dominant owners in Niels Peter Louis-Hansen, Kim Ginnerup and Lars Krogsgaard, who own 24.2 percent, 10.7 percent and 10.7 percent of the shares, respectively. Together they represent substantial financial muscle in the event that the company should need additional capital in the future. All three have been invested in ViroGates for more than 10 years and taken part in all subsequent equity issues. Mr. Louis-Hansen is a well-known Danish businessman who owns one-fifth of the medical device company Coloplast (CSE: COLO), a company founded by his father. He also owns a large stake in Ambu (CSE: AMBU). Mr. Krogsgaard is a member of the board of ViroGates and has 20 years' experience from working in private equity, i.a. at Procuritas Partners. Kim Ginnerup has spent more than 30 years in managing roles at Missionpharma, including CEO and board membership. Missionpharma was founded by his father, Poul Ginnerup, in 1975 but in 2012 the family sold a majority stake to Eurapharma SA.

Three main owners control 46 percent of the company

Total funds invested in ViroGates since its foundation amount to approximately DKK 170 million, whereof DKK 150 million were equity and DKK 20 million were grants.

History

- 2000:** ViroGates ApS was founded in Copenhagen, Denmark
Inventor and co-founder Jesper Eugen-Olsen discovered the utility of the biomarker suPAR in HIV
- 2003:** Patent application on the prognostic ability of suPAR in bacterial sepsis
- 2004:** ViroGates was awarded EUR 375 000 by European Commission's Frameworks Programme 6
- 2008:** First CE/IVD approved suPAR measuring method on market
Patent family issued on low-grade inflammation and prediction of diseases in healthy individuals
- 2010:** The number of publications on suPAR exceeds 100
Publication shows that suPAR predicts cardiovascular disease, type 2 diabetes and cancer
- 2011:** Jakob Knudsen is named new CEO
- 2013:** First routine customer
- 2015:** First version of the suPARnostic® Quick Triage test is released (qualitative)
Publication shows that suPAR can be predictive of kidney failure
- 2017:** The number of publications on suPAR exceeds 500
Publication shows causal relationship between elevated suPAR and kidney disease
- 2018:** ViroGates is listed on Nasdaq First North Copenhagen
suPARnostic® TurbiLatex Product is launched, based on turbidimetric technology
- 2019:** The company reaches 6 clinical routine customers and 36 pilot hospitals
Completes commercial scale-up of the organisation, including new CFO Mark da Silva

Ageing population puts pressure on the healthcare sector

What is the market potential?

The global population is ageing and according to WHO, this will continue until the middle of the twenty-first century. This will have implications both for individuals and for the society as a whole. For the elderly, earlier diagnosis and disease prevention will be key factors for sustaining good quality of life. For society, an ageing population means an increased burden on the healthcare system, and the Acute Care system in particular. Both of these healthcare trends can advantageously be tackled using suPAR biomarkers provided by ViroGates.

The market in which ViroGates is operating, the in vitro diagnostics (IVD) market, had an estimated turnover of USD 74 billion in 2017, according to the analysis firm BCC Research. The firm estimates that the market will grow by 6.7 percent annually to reach USD 102 billion in 2022. North America is currently the largest market, even if the majority of the growth is found in the Asian Pacific market. The highest use of IVD tests are found in the Acute Care market, where they assist physicians in deciding whether to hospitalize or discharge each incoming patient. Among the most common IVD tests today we find biomarkers such as C-reactive protein and cholesterol.

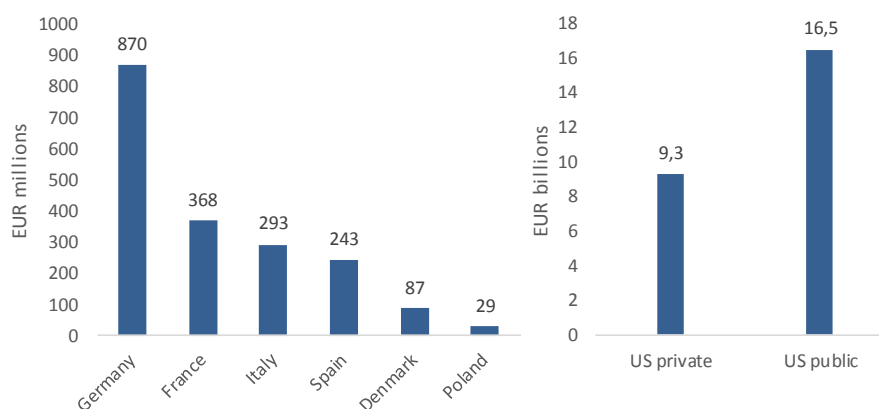
Acute Care market valued at EUR 1 billion annually

By studying patient flows from selected hospitals, ViroGates assumes that the market potential for suPARnostic® products in Acute Care would amount to approximately 2.5 percent of the general population per year. ViroGates has estimated, based on pricing assumptions of EUR 20 per test in Europe and North America and EUR 10 per test in the rest of the world, that the global market potential for suPAR testing in Acute Care could amount to more than EUR 1 billion annually.

Huge savings potential

ViroGates' estimations suggest that the use of suPARnostic® testing in Acute Care could lead to enormous cost savings for the healthcare sector. The figures below show potential savings in the healthcare system in selected EU countries and in the US. Cost savings vary by country and have been calculated using average cost per hospital bed per day, based on the finding from a study saying that suPAR testing could reduce the average patient hospital stay by 6.5 hours.

Figure 5: Potential cost savings



Source: ViroGates A/S

Other market opportunities

Other markets where ViroGates subsequently aim to launch suPARnostic® include General Practitioners (GPs), Post-Acute Care and Direct-to-Consumer. The role of GPs entails problem recognition and decision making. The diagnostics part of the process often encounters problems such as high prevalence of overlapping symptoms and the lack of predictive diagnostics test. ViroGates' products assist GPs in making informed decisions about its patients, and whether the patient at hand needs hospitalization or could be cared for at home.

ViroGates plans to enter the Post-Acute market by 2022. This market consists of patients that need a direct follow-up after being treated for an acute condition. At this stage it is important to be able to see how the patient is progressing and whether the patient can be discharged, and more importantly, whether the patient needs further medical treatment.

Measuring suPAR could boost motivation for a healthier lifestyle

Lastly, the Direct-to-Consumer market will also be targeted by ViroGates. Today, there are several routine measurements to determine and track one's health. These are measurements such as blood pressure, glucose, height and weight (BMI), smoking status, etc. However, these measurements are insufficient to identify who becomes ill or not. Measuring the level of suPAR would help identify people with a low-grade inflammation present in their body due to lifestyle-related diseases, such as cardiovascular diseases, type-2 diabetes or cancer. Seeing a precise risk metric may motivate individuals at risk to change their lifestyle, increasing the chances of staying healthy and lowering the risks of developing a disease. Consumers who decide on a lifestyle change such as quitting smoking, eating healthier or exercising more, would see their suPAR level drop and their risk profile improve within weeks. Comparing their suPAR level before and after a behavioural change could boost motivation and dedication to the healthier habits. Documenting their suPAR at regular intervals would further reinforce their new lifestyle. We could imagine a market for suPAR testing offered at retail clinics, pharmacies, health clubs, spa facilities, etc. to cater for this kind of market.

Market trends

There are several overarching global trends that point to increasing need for an efficient diagnostic biomarker of the kind that ViroGates has to offer. Five trends are particularly important:

- The global **demographic composition** is changing, with rising life expectancies causing an ageing population. This will strain the healthcare system as a whole and lead to higher healthcare spending.
- An older population also means a **growing number of chronic and infectious diseases**, further burdening the healthcare system where these patients eventually seek medical assistance.

- The healthcare sector is already growing at an unsustainable pace. **Shortage of skilled doctors, nurses and other healthcare professionals** is increasing, meaning that there is a critical need to boost efficiency in the sector.
- **Healthcare services are becoming more decentralized**, meaning patients are seeking help at many different outlets other than hospitals where diagnostic equipment and expertise are at its best. Retail and community-based clinics, pharmacies, etc. may be places where patients expect to receive high-grade prognostication, necessitating the use of convenient and reliable tests.
- Patients are becoming more and more **empowered consumers**, doing their own investigation of symptoms and treatments and demanding sophisticated, convenient, transparent and personalized service. Knowledge of the availability of suPAR and its objective measurement could trigger demand from the patient side.

How is the competition?

While the research within the area of suPAR is immense, the competition is not. The extensive research that has taken place in suPAR is to a large extent based on the protein antibody and the use of this for prognosis, which is patented by ViroGates. In simple terms this means that for any competitor to be able to use suPAR as a biomarker, they would have to repeat much of the research that has taken place with ViroGates' antibody, with an antibody of their own. Since ViroGates has been involved in suPAR research since the early 2000s, they have a gigantic lead, which will be hard, if not impossible, for a competitor to overcome.

That said, there are several other biomarkers on the market. These can be diagnostic or prognostic, with most biomarkers being niched into specific areas of testing. Two of the most general and commonly used biomarkers in the healthcare sector, C-reactive protein and Procalcitonin, are described in further detail below. These are not in direct competition with suPAR, but should rather be seen as complements, as they can be used together to provide more information about the patient analyzed.

C-reactive protein

C-reactive protein (CRP) is a substance that is produced in the liver and sent to the bloodstream in response to inflammation. Today, CRP is used as a general inflammatory diagnostics tool, capable of measuring injury, infection, cancer and some autoimmune disorders. suPAR and CRP are positively correlated, but suPAR has advantages over CRP. A significant number of patients can have a high suPAR and a low CRP, and they run a high risk of readmission and mortality. suPAR is more stable than CRP from day to day, and is a stronger marker across diseases, whereas CRP is strongest for bacterial infections. The tests can be used in combination, but suPAR will always contribute extra information independent of a CRP reading. The CRP test takes less than 5 minutes and since CRP is not protected by any patents the costs for healthcare providers to purchase the tests are low, ranging from 0.5 – 10 USD per test, depending on which platform the testing is conducted on.

Procalcitonin

Procalcitonin (PCT) is another diagnostic biomarker and is also produced in the body in response to an infection, especially of bacterial origin. PCT is more informative about the severity of an infection than CRP, however, the test remains diagnostic, and not prognostic. PCT is primarily a biomarker for sepsis. The patent for PCT has expired and the price per test is close to 10 USD and is offered by several players in the diagnostics healthcare market. The annual sales of PCT tests sum up to more than USD 300 million annually.

What are ViroGates' competitive advantages?

ViroGates is in an enviable position as it has no competition in utilising the strength of suPAR in commercial applications. The strength of its business model rests on the efficacy of suPAR as a prognostic biomarker, the megatrends that support increasing need for this kind of test and finally, its technical leadership and patent portfolio which secures against competition even in the future.

A diagnostic, not prognostic biomarker

Mainly infections can be measured

suPAR is a superior biomarker for prognostication

As we have discussed above, suPAR is superior to all other known diagnostic tests in discriminating between patients in acute states of disease and patients outside imminent danger. The key advantage is that the suPARnostic® tests do not test for any particular condition, but rather for *any* condition that mobilises the immune system. As evidenced by numerous clinical studies, any illness that could lead to severe conditions will also mobilise the immune system and therefore be revealed by the suPARnostic® tests. Practically any medical condition requiring hospitalisation would show up either as elevated suPAR or be obvious to an examining physician anyway, such as acute injury or trauma. ViroGates may therefore claim that a trained physician aided by a suPAR test would be able to determine the severity of a patient's condition with a high degree of confidence, and much better than they would without the suPAR test. Herein lies the key to saving personnel and other resources in the healthcare service and to improving outcomes for patients.

suPAR is stable in vivo...

The suPAR has several benefits that makes it a convenient biomarker. First, the level of suPAR in an individual's bloodstream is very stable. Although there is minor variation with age and between genders, the suPAR level in a healthy individual is reliably within a predictable interval even when the person is experiencing trivial or temporary conditions such as influenza, sleep loss or fasting. An elevated suPAR is therefore always a strong indicator of heightened risk.

... as well as in vitro

Secondly, suPAR is also very stable in vitro, meaning that the level of suPAR in a blood sample remains unchanged for a long time. An assay taken directly after the blood was drawn from the patient would in all likelihood give the same reading as a second assay taken on the same blood sample after lengthy storage. This means the error rate in measurement remains small, again suggesting high reliability in the prognostic power of the suPAR test.

Competitors would have to redo massive clinical studies

The substantial library of scientific evidence supporting the use of suPAR could suggest that many life science companies would be interested in launching similar tests to compete with ViroGates. They would be at a huge disadvantage compared with ViroGates if they were to try, however. Of the roughly 600 scientific journal articles supporting the clinical relevance of suPAR, around 550 were performed using ViroGates' proprietary antibody-producing clones. It is essential for an accurate reading of the suPAR level to select the most clinically relevant antibodies, i.e. the ones with the optimal affinity to suPAR. Anyone trying to imitate ViroGates' work would first have to identify equally effective clones, establish a robust manufacturing process for antibodies and then start clinical studies on their strain of antibodies. This would be both difficult and very time consuming.

Patents protect ViroGates' commercial use of suPAR

On top of the technological lead, ViroGates business model is further supported by patents. The patents are broad in scope, covering the use of suPAR for clinical prognostication. They cover anything from the ability of suPAR to predict disease development over a 10-year period in healthy individuals to 30-day survival in acute sepsis patients. suPAR antibodies can be used for research purposes but any activity aimed at clinical applications would be a patent infringement according to ViroGates.

Our model includes only Acute Care for now**What is the earnings outlook?**

To help us estimate a fair value of the company and its stock, we have developed a set of economic projections for the company's future earnings. In this economic scenario, we have only included earnings from the Acute Care hospital market and for now ignored other market opportunities. We acknowledge the potential in these other market segments too, but before including them in our valuation model, we want to see ViroGates establishing a solid commercial foothold in the Acute Care market. This way we keep our model simple and conservative and leave room for the company to surprise on the upside.

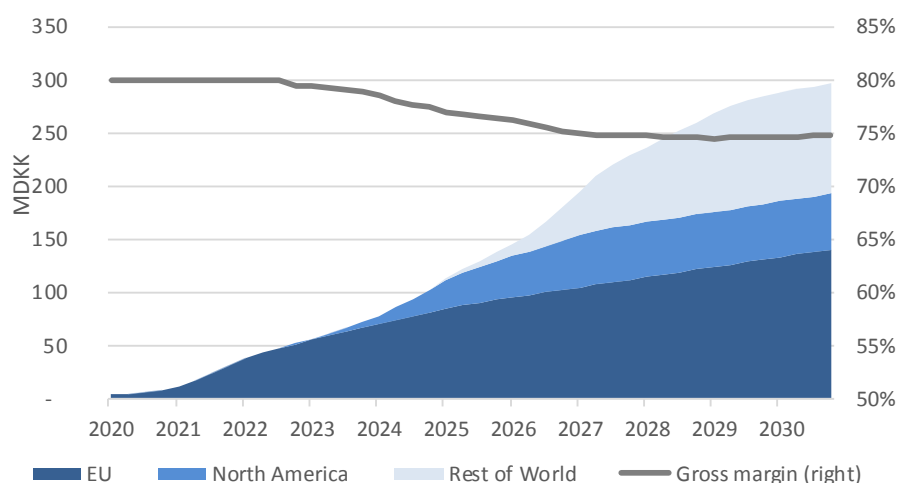
The Acute Care market can be divided geographically into the European Union (EU), North America (USA and Canada), and the rest of the world. The company estimates, based on the patient flow from selected hospitals, that the patient potential using the company's products could be approximately 2.5 percent of the general population on a yearly basis.

The initial target market for the company is the EU, followed by North America and lastly the rest of the world.

We assume prices of 10-20 EUR per test

The selling price per test differs with the sales strategy used. For the EU market, the company will deploy a mix of direct sales and sales through distributors, and we have assumed an average selling price of 15 EUR per test. Behind this number is an assumption of about 50/50 split between direct and indirect sales, and that the different channels will command prices of 20 and 10 EUR, respectively. Other markets will most likely be targeted via partnerships and/or distributors, and we have assumed a selling price of 10 EUR per test. The cost of manufacturing we have assumed to be 3 EUR per test. Our projected sales forecast is shown in Figure 6 below.

Figure 6: Rolling 12M revenues, by geography



Source: Västra Hamnen Corporate Finance

We see 10% market penetration in EU, 5% in other markets

Our long-term scenario builds on the assumption that the addressable market in Acute Care amounts to 2.5 percent of the population in each geographic market. We have conservatively assumed the “Rest of the World” segment to comprise a population of only 1 billion people, to limit the scope only to the most advanced medtech markets. Our projections further build on the estimate that ViroGates will achieve 10 percent market penetration in the addressable market in the EU, and 5 percent in the North America and in the rest of the world. This expansion reaches saturation in the year 2030, where after growth is assumed to continue at 2.5 percent per year.

EBITDA margin to reach 50% in 2026

ViroGates runs a slimmed-down organisation with many outsourced functions and we therefore regard the need to scale up the organisation as rather modest. We have assumed only a doubling of operating expenses until 2025, mostly due to a growing sales force. As revenues grow, there should therefore be room for considerable operating margins. We have assumed EBITDA margins of around 50 percent starting in 2026.

First positive net profit in 2022

In net profit terms, the company will reach breakeven in early 2022. This is probably at odds with the company’s financial target of becoming cash flow positive by the end of 2020. However, once again, we prefer to stay on the conservative side and leave room for positive surprises. After 2022 we see rapidly growing net profits, as the company expands into North America and the rest of the world. Due to a carry forward loss of around DKK 80 million, we do not expect the company to pay taxes until 2026.

Table 2: Summary income statement

MDKK	2018	2019e	2020e	2021e	2022e	2023e	2024e
Total revenues	3,3	4,2	8,3	30,7	52,3	72,3	103,1
COGS	(0,3)	(0,5)	(1,7)	(6,1)	(10,5)	(15,0)	(22,8)
Opex	(21,0)	(20,8)	(28,0)	(31,2)	(33,6)	(37,4)	(41,3)
EBITDA	(18,0)	(17,0)	(21,3)	(6,6)	8,1	19,8	39,0
Amortisation & Depreciation	(0,1)	(0,1)	(0,1)	(0,1)	(0,2)	(0,2)	(0,2)
EBIT	(18,1)	(17,1)	(21,4)	(6,7)	8,0	19,6	38,8
Net financial items	(0,8)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)	(0,3)
Taxes	1,9	0,9	-	-	-	-	-
Net profit	(17,0)	(16,5)	(21,7)	(7,0)	7,7	19,3	38,5

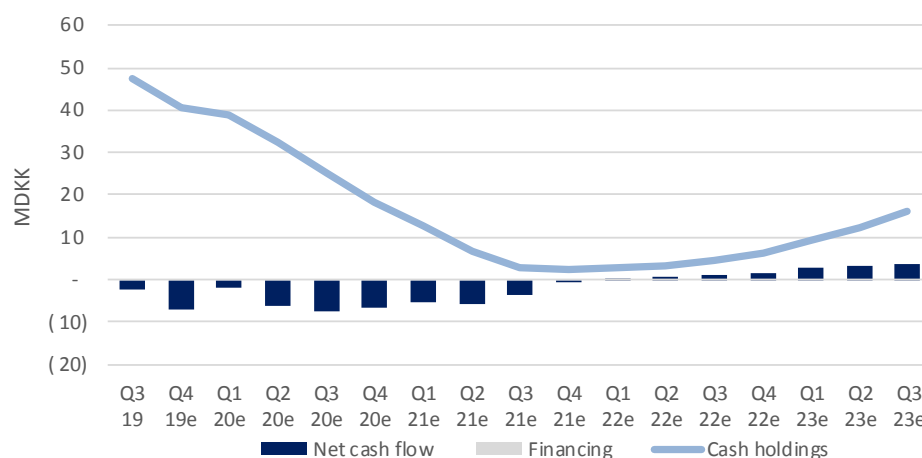
Source: Västra Hamnen Corporate Finance

DKK 47.6 million in cash holdings

How is the cash situation?

In the latest financial report from Q3 2019, the company reported cash holdings of DKK 47.6 million. The cash reserve still benefits from the capital raised in connection with the IPO the year before. We believe that this liquidity will be enough to support the company until it reaches a steady stream of positive cash flows. Until then, we expect to see negative cash flows as the company progresses in commercialization.

The burn rate during the expansion phase is fairly low since the products have high gross margins, the organisation is kept lean and investment needs are low going forward. However, the company will tie up working capital during the expansion phase, affecting the cash balance negatively. We expect the company to become cash flow positive in early 2022 and thereafter expect steadily increasing cash flows.

Figure 7: Cash flow and cash holdings

Source: Västra Hamnen Corporate Finance

What is fair value for the stock?

We apply two techniques to estimate fair value for the company. The first is a discounted cash flow (DCF) model based on the economic scenario described above and the second is a peer valuation. We perform the DCF valuation using two steps (see details in the appendix). In the first step, we estimate fair enterprise value assuming that the company survives until it reaches sustainable profitability. In the second step, we multiply this enterprise value with a risk coefficient, reflecting the probability of it reaching the profitable stage.

We apply a WACC of 16 percent

Since the risk coefficient adjusts for the risk of non-survival, we can apply a lower discount rate than would otherwise be the case. We have chosen to discount future cash flows by a weighted average cost of capital (WACC) rate of 16 percent. One could argue for a lower WACC since the company has fully functional products targeting a non-cyclical market, with little or no direct competition. However, even after it reaches profitability ViroGates will be a small company that is extremely reliant on a few key people and suppliers. Its sales will

also be exposed to political risk, not least related to reimbursement policies and purchasing policies of hospital management. By using a WACC of 16 percent we compensate for the risk and leave room for future valuation upgrades if and when the company demonstrates robustness to the risk factors.

The net present value of cash flows during the model's explicit period until 2030 sum up to DKK 147.3 million. To this we add a discounted terminal value of all cash flows from 2031 onward, assuming a growth rate of 2.5 percent in perpetuity. Together this implies a fair enterprise value of DKK 328.0 million before adjusting for survival risk.

Many young companies struggle to make it from the start-up and growth stages and into a stage of stable profitability. Many fail along the way. That is why we multiply the enterprise value by a coefficient that represents the chance of this particular company making it to the profitable stage. Over time we may revise this coefficient, and the closer the company comes to delivering sustainable profits, the higher the coefficient.

Considering ViroGates' present stage and our assessment of the risk, we regard 50 to 80 percent to be a reasonable probability range. We use these figures as multiples to risk adjust our estimated enterprise value. Our estimate of fair enterprise value is DKK 164.0 million using 50 percent risk weight and DKK 262.4 million using 80 percent weight.

Table 3: DCF model assumptions

MDKK	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e
Total revenues	8,3	30,7	52,3	72,3	103,1	137,9	181,0	229,6
EBIT	(21,4)	(6,7)	8,0	19,6	38,8	60,0	86,4	116,1
EBIT margin	-257,3%	-21,9%	15,3%	27,2%	37,6%	43,5%	47,7%	50,5%
Adj. Taxes	-	-	-	-	-	(4,5)	(19,0)	(25,5)
NOPLAT (= EBIT - tax)	(21,4)	(6,7)	8,0	19,6	38,8	55,5	67,4	90,5
Depreciation	0,1	0,1	0,2	0,2	0,2	0,2	0,2	0,2
Capex + Working cap	(2,0)	(8,7)	(4,1)	(4,3)	(6,0)	(5,8)	(9,9)	(5,2)
Net cash flow	(23,3)	(15,3)	4,0	15,5	33,0	49,9	57,6	85,5

DCF (MDKK)	
WACC	16,0% 16,0%
Enterprise value (EV)	328,0 328,0
Prob of profitability	50% 80%
Risk adjusted EV	164,0 262,4
Options	(5,2) (5,2)
Net cash	47,6 47,6
Fair value market cap	206,4 304,8
Number of shares (M)	3,03 3,03
Fair value/share (DKK)	68,00 100,50

Sensitivity analysis (value per share, DKK)

		Prob of profitability			
		50%	60%	75%	80%
WACC	19%	51,90	59,50	70,90	74,70
	17%	61,80	71,40	85,70	90,50
	16%	68,00	78,80	95,10	100,50
	13%	95,00	111,20	135,40	143,50
	11%	124,80	146,90	180,20	191,30

Source: Västra Hamnen Corporate Finance

DCF model yields fair value of DKK 68.00 – 100.50 per share

To go from fair enterprise value to fair market capitalisation we add the company's cash holdings and subtract all interest-bearing debt. We also subtract the market value of outstanding warrant programmes as they represent a liability for the company. This leaves us with a fair market valuation of the equity at DKK 206.4 million using 50 percent risk weight and DKK 304.8 million using a weight of 80 percent. **This is equivalent to a fair value per share of DKK 68.00 and 100.50, respectively.**

We have also performed a so-called peer valuation, meaning a valuation based on what values the market assigns to comparable companies. The difficulty in comparing young companies against one another is that they often lack profits, and sometimes even revenues, to use as scaling parameters for comparison. In the case of ViroGates, it is also difficult to find listed companies with a comparable business orientation.

We have chosen to compare its valuation against Swedish and Danish listed companies in the same industry subsector, Medical Technologies, see Table 4 below. Many of the companies in this subsector have yet to advance from a growth stage to a stage of sustainable profits but we have selected a handful of companies with stable profits, high gross margins and representative key figure valuations. The comparison with ViroGates is far from perfect but it serves as a helpful reality check on our DCF valuation when we compare these peers with a discounted future version of ViroGates. We have chosen to zoom in on the year 2024, when ViroGates according to our model enters a somewhat more stable growth path, while delivering a profit of DKK 30.1 million (after normalized taxes) on a revenue of DKK 103.1 million.

Peer valuation suggests DKK 71.50 – 145.20 per share

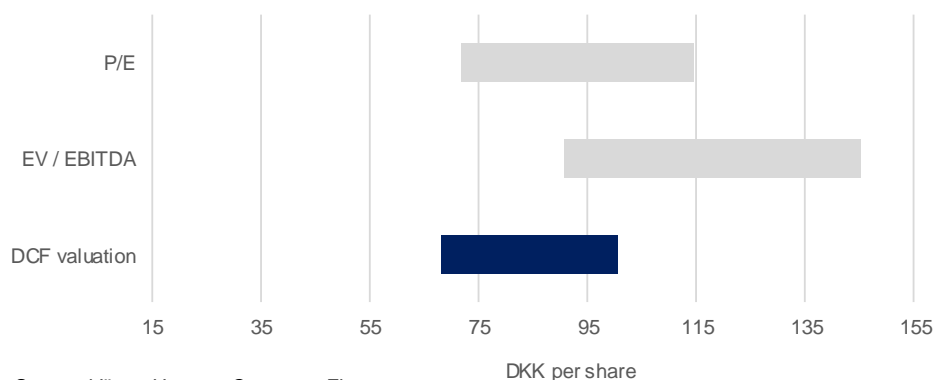
We have taken the average profit multiples of the peer group and applied them to ViroGates' estimated profits in 2024, discounted the resulting company valuation to the present, and finally applied the two risk coefficients 50 and 80 percent as in the DCF model. **In summary, the peer analysis suggests a fair value of between DKK 90.80 and 145.20 per share using P/E and between DKK 71.50 and 114.50 based on EV/EBITDA.**

Table 4: Peer analysis

MDKK	Market cap	Net profit T12M	P/E	Enterprise value (EV)	EBITDA	Sales	EV/EBITDA	EV/sales
ViroGates	179,0	neg	neg	128,9	(21,0)	3,9	neg	32,6
Coloplast (DK)	180 000,0	3 873,0	46,5	182 000,0	6 174,0	17 939,0	29,4x	10,1
Probi (SE)	1 658,0	55,4	27,8	1 529,0	110,8	438,7	12,4x	3,5
Boule Diagnostic (SE)	970,0	29,8	43,0	1 002,0	43,4	308,2	18,6x	3,0
Stille (SE)	434,0	14,7	25,4	408,0	20,2	98,6	18,8x	3,6
Immunovia (SE)	2 324,0	(62,8)	neg	2 144,0	(61,8)	241,5	neg	8,9
Average			35,6				19,8	
ViroGates 2024e		30,1			39,0	103,1		
Fair value per share, DKK			90,8 - 145,2				71,5 - 114,5	

Source: Factset, Västra Hamnen Corporate Finance

Figure 8: Football field - P/E, DCF, EV/EBITDA



What is behind the numbers?

In our research we try to look beyond the reported numbers to see if the company uses accounting methods, or reports items off the income statement or balance sheet, that could impact our interpretation of its official figures. The underlying economics of the company could be stronger or weaker than they appear at first glance and this could be important for our valuation.

Expensing all development costs is a sign of strength

In the case of ViroGates, we consider its accounts to be simple and straightforward, with little need for advanced forensics. If anything, the economics of the company are stronger than suggested by a superficial look at the accounting figures. The most important factor to observe is that the company expenses all development costs as they occur instead of capitalising them. There are consequently no immaterial assets on the balance sheet. Many

companies in a similar stage of development as ViroGates capitalise development costs, which will boost net profit and total equity in the short run but lead to higher depreciation costs down the road. The more conservative accounting practice chosen by ViroGates is a concealed strength in our opinion, suggesting value over and beyond what is recognised in the books.

Secondly, the company has a notable latent tax asset in the form of accumulated net losses, which can be carried forward and used to reduce the tax cost once the company starts running profits. This asset is not visible in the books but we have incorporated this advantage in our DCF model.

Potential dilution through warrants

Finally, it is important to be aware of the potential dilution of existing shares from the future exercise of warrant programmes. ViroGates has a total of three different warrant programmes, which have been issued to top management and other employees, some company directors and to the previous holders of a fully repaid convertible loan. If all outstanding warrants were to be exercised, they would cause a 15.2 percent dilution of existing shares. The exercise prices range from DKK 32.7 to 91 per share. The warrant program with a strike price of DKK 91 constitutes 40 percent of all outstanding warrants and expire in June 2020. The probability of them being exercised is thus fairly low. If all the other warrants are exercised, however, it would dilute the existing shares by 9.8 percent. In our valuation above, we have for simplicity treated all warrant programmes equally, counting the current option value of outstanding warrants as a debt to the company and dividing the net equity value of the company by the undiluted number of shares.

Market breakthrough could take longer than expected

What could go wrong?

We believe that the main challenge for ViroGates is to reorient the company into a commercially and financially self-sustained company, from being fully devoted to research. ViroGates currently has bold financial targets for 2020 and the risk of missing these might negatively affect the share price. ViroGates' product line is undoubtedly ground-breaking in several aspects but making the healthcare sector take on new technological solutions might be tricky. The targeted healthcare sector is known to be conservative and an overall slow-moving market, which means it might take longer than anticipated to succeed in commercializing the products. However, the market conservatism works both ways. As more and more hospitals start using suPAR as a biomarker, the chances of establishing this as a standard will increase, which reduces the risk of subsequently losing customers to other techniques.

The efficacy of using suPAR as a biomarker is backed up by an enormous body of research. We believe the risk of the product line not being able to deliver on its promises is very small, since there are statistically so few false negatives reported. False negatives mean that seriously sick patients are erroneously identified as low-risk cases. If false negatives were to be frequently reported, it could destroy the confidence in using suPAR as a biomarker.

Low risk of direct competition

Normally the risk of competition is one of the biggest threats for any given company. This risk must be considered low in ViroGates' case due to the high entry barriers in the form of research needed to create a new antibody that is able to use suPAR as a biomarker. Furthermore, even if there are other biomarkers on the market, these are often used for different purposes and niches but can also be used in combination for increased diagnostic and prognostic capabilities.

A single supplier of antibodies represents risk

As a small company, ViroGates is critically dependent on a small group of key employees. Any loss of employees could disrupt the important ramp-up phase ahead. ViroGates is also to some extent dependent on its suppliers. Most importantly, the company has contracted the Norwegian company Diatec Monoclonal AS to manufacture the monoclonal antibodies to be used in all suPARnostic® products. According to the 2018 IPO prospectus, the supplier may terminate the agreement with 30 days' notice. However, as a mitigating factor ViroGates is reported to be holding ample supplies of the manufactured product in stock. The

antibodies are the most important ingredient in all of ViroGates products and we regard the risk of disruptions on the supply side to be an important risk for the company.

Coming events

We look out for new routine customers

ViroGates has previously announced when new hospitals become clinical routine customers. This will be a big value driver moving forward as it is here the near-term earning potential exists. With currently 6 clinical routine customers, and a target of 40 by the end of 2020, it is not unlikely that we shall see many new hospitals added as clinical routine customers during the year. Furthermore, the addition of new hospitals in trial programmes will also be an important news flow. The number of hospitals in trial is usually announced in the annual and quarterly reports.

TurbiLatex to be validated on new platforms

Looking at the company's product offering it is possible that we will see further achievements. The suPARnostic® TurbiLatex is now validated for all commercially relevant Roche Diagnostics cobas instruments plus Siemens Advia XPT. The company has communicated that it is validating the suPARnostic® TurbiLatex on other biochemistry analyzers such as Siemens Atellica, Abbott Architect and Abbott Alinity. More information is expected in Q3-Q4 this year.

In February 2019, ViroGates entered a co-development agreement with Austria-based GENSPEED BioTech GmbH to develop a combined suPAR and CRP test. The product will be based on a finger prick test, with an analysis time of less than 10 minutes. This point-of-care test would be optimal in e.g. ambulances. The product is expected to take two years to develop, which means it will take another year to finish.

US talks is a wild card

Another potential development could be the start of an FDA discussion regarding the US market. ViroGates has not disclosed their timeline for the US market, but in practice all of its focus will be on the EU market for the time being. However, if ViroGates is contacted by a potential partner, anything is on the table. An early partnership might allow for revenues coming from the North American market earlier than we have anticipated.

Financial calendar

25 Mar 2020	Annual Report 2020
28 Apr 2020	Annual General Meeting
30 Apr 2020	Q1 Report 2020
13 Aug 2020	Q2 report 2020
27 Oct 2020	Q3 report 2020

Appendix: Valuation method

Companies in an early stage usually report negative net profits and may have many years left until they turn a profit. Sometimes they even have years until their first significant sales revenues. The difficulty in valuing growth companies with limited historical records is that the valuation rests on uncertain estimates of future earnings; more uncertain than for companies with years of stable profits on record. There is little in terms of historical figures on which to base estimates of future revenues, future profit margins and other items.

To handle these challenges, we choose to follow a generally accepted method for valuing growth companies described by finance professor Aswath Damodaran¹⁾ among others. Instead of scaling the discount rate (WACC) to account for all the risks and uncertainties associated with a young company, we use a two-stage valuation approach:

- First, we estimate fair enterprise value under the explicit assumption that the company survives until its first year of sustainable profits. We use a WACC commensurate with the circumstances of the company once it reaches profitability.
- Second, we adjust the estimated enterprise value by multiplying with a probability factor reflecting the likelihood that the company survives.

With each passing period after the initial valuation, the probability factor may be adjusted based on the company's development and our updated assessment of its chances of survival.

1) **Damodaran, Aswath**, "Valuing Young, Start-up and Growth Companies: Estimation Issues and Valuation Challenges", Stern School of Business, New York University, May 2009

Income Statement - Annual Data

kDKK	2018	2019e	2020e	2021e	2022e	2023e	2024e	2025e
Net revenues	3 316	4 203	8 321	30 717	52 250	72 274	103 119	137 884
Total revenues	3 316	4 203	8 321	30 717	52 250	72 274	103 119	137 884
Cost of goods sold	(312)	(474)	(1 664)	(6 143)	(10 526)	(15 041)	(22 788)	(32 067)
Gross profit	3 004	3 729	6 657	24 574	41 724	57 233	80 331	105 816
Personnel costs	(5 858)	(10 123)	(12 711)	(14 163)	(15 264)	(17 017)	(18 791)	(20 750)
Other external costs	(15 123)	(10 653)	(15 253)	(16 995)	(18 316)	(20 421)	(22 549)	(24 900)
EBITDA	(17 977)	(17 047)	(21 307)	(6 584)	8 144	19 795	38 991	60 167
Amortisation & depreciation	(125)	(84)	(108)	(135)	(154)	(167)	(177)	(184)
EBIT	(18 102)	(17 130)	(21 414)	(6 719)	7 990	19 628	38 813	59 983
Net financial items	(814)	(295)	(280)	(280)	(280)	(280)	(280)	(280)
EBT	(18 916)	(17 426)	(21 694)	(6 999)	7 710	19 348	38 533	59 703
Taxes	1 930	901	-	-	-	-	-	(4 108)
Net profit	(16 986)	(16 525)	(21 694)	(6 999)	7 710	19 348	38 533	55 594
Earnings per share (DKK)	(5,88)	(5,45)	(7,15)	(2,31)	2,54	6,38	12,70	18,32
Growth (%)								
Net revenues	na	26,8%	98,0%	269,1%	70,1%	38,3%	42,7%	33,7%
EBITDA	na	na	na	na	na	143,1%	97,0%	54,3%
EBIT	na	na	na	na	na	145,7%	97,7%	54,5%
Net profit	na	na	na	na	na	150,9%	99,2%	44,3%
% of revenues (%)								
Gross margin	90,6%	88,7%	80,0%	80,0%	79,9%	79,2%	77,9%	76,7%
EBITDA margin	neg	neg	neg	neg	15,6%	27,4%	37,8%	43,6%
EBIT margin	neg	neg	neg	neg	15,3%	27,2%	37,6%	43,5%
EBT margin	neg	neg	neg	neg	14,8%	26,8%	37,4%	43,3%
Profit margin	neg	neg	neg	neg	14,8%	26,8%	37,4%	40,3%
Personnel costs	176,7%	240,8%	152,8%	46,1%	29,2%	23,5%	18,2%	15,0%
Total OPEX	632,7%	494,3%	336,1%	101,4%	64,3%	51,8%	40,1%	33,1%
Profitability (%)								
ROE	neg	neg	neg	neg	32,8%	45,2%	47,3%	40,6%
ROIC	neg	neg	neg	neg	34,3%	69,7%	107,6%	137,2%
ROCE	neg	neg	neg	neg	26,5%	35,7%	37,2%	34,2%

Source: Västra Hamnen Corporate Finance

Balance Sheet - Annual Data

kDKK	2018	2019e	2020e	2021e	2022e	2023e	2024e	2025e
Inventories	694	3 556	1 350	4 628	6 754	8 389	10 832	13 507
Account receivable	431	356	1 519	5 206	7 411	9 951	14 414	18 437
Other receivables	1 988	3 245	2 772	4 223	4 223	4 223	4 223	4 223
Cash and cash equivalents	60 084	40 470	18 109	2 563	6 284	21 523	54 247	104 187
Total current assets	63 197	47 626	23 749	16 620	24 672	44 086	83 715	140 353
Tangible assets	117	286	378	443	489	522	545	561
Intangible assets	-	-	-	-	-	-	-	-
Financial assets	110	279	279	279	279	279	279	279
Total fixed assets	227	565	657	723	769	801	824	840
Total assets	63 424	48 191	24 406	17 342	25 441	44 887	84 539	141 194
Accounts payable	339	1 541	844	810	1 013	1 398	2 166	2 894
Short-term debt	-	-	-	-	-	-	-	-
Other liabilities	2 073	2 163	770	739	925	638	988	1 321
Total current liabilities	2 412	3 704	1 614	1 549	1 938	2 036	3 155	4 215
Other provisions	-	-	-	-	-	-	-	-
Total equity	61 011	44 486	22 792	15 793	23 503	42 851	81 384	136 978
Total equity and liabilities	63 423	48 191	24 406	17 342	25 441	44 887	84 539	141 193

Source: Västra Hamnen Corporate Finance

Cash flow statement

kDKK	2018	2019e	2020e	2021e	2022e	2023e	2024e	2025e
Operating activities	(17 081)	(17 592)	(21 587)	(6 864)	7 864	19 515	38 711	55 778
Changes in working capital	701	(1 602)	(574)	(8 481)	(3 943)	(4 077)	(5 786)	(5 638)
Investing activities	(2)	(421)	(200)	(200)	(200)	(200)	(200)	(200)
Financing activities	75 000	-	-	-	-	-	-	-
Cash flow for the period	58 618	(19 614)	(22 361)	(15 546)	3 721	15 238	32 724	49 940
Beginning cash balance	-	58 618	39 004	16 643	1 097	4 818	20 057	52 781
Adjustments	-	-	-	-	-	-	-	-
Ending cash balance	58 618	39 004	16 643	1 097	4 818	20 057	52 781	102 721

Source: Västra Hamnen Corporate Finance

Income Statement - Quarterly Data

kDKK	Q1 2019	Q2 2019	Q3 2019	Q4 2019e	Q1 2020e	Q2 2020e	Q3 2020e	Q4 2020e
Net revenues	1 105	1 465	551	1 082	1 263	1 626	2 352	3 079
Total revenues	1 105	1 465	551	1 082	1 263	1 626	2 352	3 079
Cost of goods sold	(90)	(80)	(88)	(216)	(253)	(325)	(470)	(616)
Gross profit	1 015	1 386	463	865	1 011	1 301	1 882	2 464
Personnel costs	(2 305)	(3 442)	(1 975)	(2 400)	(3 015)	(3 121)	(3 231)	(3 344)
Other external costs	(2 542)	(2 506)	(2 725)	(2 880)	(3 618)	(3 745)	(3 877)	(4 013)
EBITDA	(3 833)	(4 562)	(4 237)	(4 415)	(5 622)	(5 565)	(5 226)	(4 894)
Amortisation & depreciation	(31)	(31)	0	(21)	(24)	(26)	(28)	(30)
EBIT	(3 864)	(4 594)	(4 237)	(4 436)	(5 646)	(5 591)	(5 254)	(4 924)
Net financial items	(81)	(78)	(66)	(70)	(70)	(70)	(70)	(70)
EBT	(3 945)	(4 672)	(4 303)	(4 506)	(5 716)	(5 661)	(5 324)	(4 994)
Taxes	270	322	309	-	-	-	-	-
Net profit	(3 675)	(4 350)	(3 994)	(4 506)	(5 716)	(5 661)	(5 324)	(4 994)
Earnings per share (DKK)	(1,21)	(1,43)	(1,32)	(1,49)	(1,88)	(1,87)	(1,75)	(1,65)
Y-o-Y Growth (%)								
Net revenues	92,6%	34,2%	(33,2%)	30,9%	14,3%	11,0%	327,0%	184,7%
EBITDA	na	na	na	na	na	na	na	na
EBIT	na	na	na	na	na	na	na	na
Net profit	na	na	na	na	na	na	na	na
% of revenues (%)								
Gross margin	91,9%	94,6%	84,1%	80,0%	80,0%	80,0%	80,0%	80,0%
EBITDA margin	neg	neg	neg	neg	neg	neg	neg	neg
EBIT margin	neg	neg	neg	neg	neg	neg	neg	neg
EBT margin	neg	neg	neg	neg	neg	neg	neg	neg
Profit margin	neg	neg	neg	neg	neg	neg	neg	neg
Personnel costs	208,6%	234,9%	358,6%	221,9%	238,6%	191,9%	137,4%	108,6%
Total OPEX	438,7%	405,9%	853,2%	488,1%	525,0%	422,2%	302,2%	238,9%
Profitability (%)								
ROE	neg	neg	neg	neg	neg	neg	neg	neg
ROIC	neg	neg	neg	neg	neg	neg	neg	neg
ROCE	neg	neg	neg	neg	neg	neg	neg	neg

Source: Västra Hamnen Corporate Finance

Balance Sheet - Quarterly Data

kDKK	Q1 2019	Q2 2019	Q3 2019	Q4 2019e	Q1 2020e	Q2 2020e	Q3 2020e	Q4 2020e
Inventories	578	829	741	3 556	554	713	1 031	1 350
Account receivable	752	809	129	356	623	802	1 160	1 519
Other receivables	2 615	4 273	3 435	3 245	1 895	2 033	2 470	2 772
Cash and cash equivalents	55 992	50 165	47 626	40 470	38 677	32 356	24 953	18 109
Total current assets	59 937	56 076	51 931	47 626	41 749	35 904	29 614	23 749
Tangible assets	86	55	257	286	312	336	358	378
Intangible assets	-	-	-	-	-	-	-	-
Financial assets	112	279	279	279	279	279	279	279
Total fixed assets	198	334	536	565	591	615	637	657
Total assets	60 135	56 410	52 467	48 191	42 340	36 519	30 251	24 406
Accounts payable	1 108	1 343	1 385	1 541	1 800	1 782	1 289	844
Short-term debt	-	-	-	-	-	-	-	-
Other liabilities	1 690	2 081	2 089	2 163	1 769	1 626	1 176	770
Total current liabilities	2 798	3 423	3 474	3 704	3 569	3 409	2 465	1 614
Other provisions	-	-	-	-	-	-	-	-
Total equity	57 336	52 987	48 993	44 486	38 770	33 109	27 786	22 792
Total equity and liabilities	60 135	56 410	52 466	48 191	42 339	36 518	30 250	24 406

Source: Västra Hamnen Corporate Finance

Cash flow statement

kDKK	Q1 2019	Q2 2019	Q3 2019	Q4 2019e	Q1 2020e	Q2 2020e	Q3 2020e	Q4 2020e
Operating activities	(3 914)	(4 640)	(4 553)	(4 485)	(5 692)	(5 635)	(5 296)	(4 964)
Changes in working capital	(176)	(1 020)	2 215	(2 622)	3 949	(636)	(2 057)	(1 831)
Investing activities	(2)	(167)	(202)	(50)	(50)	(50)	(50)	(50)
Financing activities	-	-	-	-	-	-	-	-
Cash flow for the period	(4 092)	(5 827)	(2 540)	(7 156)	(1 793)	(6 321)	(7 402)	(6 844)
Beginning cash balance	60 084	55 992	50 165	47 626	40 470	38 677	32 356	24 953
Adjustments	-	-	-	-	-	-	-	-
Ending cash balance	55 992	50 165	47 626	40 470	38 677	32 356	24 953	18 109

Source: Västra Hamnen Corporate Finance

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