

Prolight Diagnostics AB: Positive results from the pre-clinical validation study de-risk the full clinical validation

Johan Widmark | 2025-04-01 08:00

Following the many recent grants, notices of allowance and intention to grant patents in Europe and the US, and the arrival of the first of thirty commercial prototype instruments for the Psyros Point of Care (POC) system, Prolight has now announced the positive results from the company's pre-clinical validation study using plasma biobank samples, marking another a significant step in Prolight's long-term strategy to deliver innovative solutions for POC diagnostics. The study results affirm the performance of the Psyros technology with good clinical sensitivity and specificity with chest-pain samples. It also provided an initial estimate of the healthy normal reference range and showed equivalence of commercial prototypes with lab prototypes, laying a sturdy foundation for the full clinical performance study planned to start later this year. Furthermore, the recent acquisition of the Norwegian POC platform SpinChip by bioMérieux for EUR 138m underscores the growing interest and value potential of POC systems. As our rNPV model now rolls over into 2025, this motivates a hike of our likelihood to get to launch to 90% (82%) and increases our fair value to SEK 1.15-1.25 (0.9–1.0) per share, whereas a read-across from the SpinChip deal supports a valuation of USD 160m, translating to SEK 2.3 per share.

Positive pre-clinical data

The pre-clinical data of clinical sensitivity and specificity were estimated from 94 chest-pain samples (46 with confirmed myocardial infarction) measured on in-house prototype instruments and also measured on Psyros™ commercial prototypes. The areas under the ROC curve (AUC) were 0.97 and 0.98 respectively, demonstrating good clinical performance. The correlation between in-house laboratory prototypes and commercial prototypes (R^2) of 0.97 confirms that Prolight's low-cost optical module can deliver the performance required for launch. These first results, will be instrumental in fine-tuning and final optimisation of the Psyros POC system, mitigating risks, and ensuring the robustness of the final design before going into the full clinical performance study planned to start later in 2025, with commercial launch in 2026. The positive results from the pre-clinical validation study de-risk the full clinical validation of the Psyros high sensitivity troponin assay. These results combined with the portable commercial Psyros prototype with low cost optical module motivate a hike of the likelihood to launch to 90% (82%).

Cash now at SEK 15.7m excluding grants and R&D tax credit

At the end of Q4'24 Prolight held SEK 15.7 million in cash. In addition the company will continue to receive additional money from the Product Development Award (PDA) received in May 2024 of SEK 17m. In addition the company will, as last year, receive R&D tax credit in the UK, which in 2023 amounted to approximately 7,6 MSEK. Given the annual OPEX run rate of SEK >60 million, financing will become an issue, as current funds are insufficient to support operations through the multicentre clinical performance trial. Ideally, the positive pre-clinical study results could serve as a pivotal stepping stone towards securing an industrial partnership, potentially tied to milestone-based funding. Otherwise, we expect an equity raise—particularly considering the share price has surged some +300% year-to-date, making it an opportune moment to raise capital. With the potential expansion into BNP and D-Dimer POC tests, our rNPV model, rolled over into 2025, stands at SEK 915m. Factoring in an estimated equity raise of SEK 90m, this supports a fair value of SEK 1.15-1.25 (0.9–1.0) per share.

EUR 138m for SpinChip in pre-clinical evaluation

In January, one global in-vitro diagnostics leader bioMérieux announced the acquisition of SpinChip, a Norwegian POC diagnostics benchtop platform for rapid in-vitro testing, for a total enterprise value of EUR 138 million (approx. SEK 1.6bn). The acquisition took place while Spinchip was in pre-clinical

Prolight Diagnostics

Fair Value, SEK	1.15-1.25
Current Price, SEK	0.588
Shares (M)	702.1
Market Cap (MSEK)	412.8
Net Debt (MSEK) Est.	-15.7
EV (MSEK) Est.	397.1
Market	Nordic SME

Valuation Summary

Troponin	USDm	67.6
BNP	USDm	11.5
D-Dimer	USDm	8.0
Total	USDm	87.2
USDSEK		10.5
Fair Value	SEKm	915.2
New Equity	SEKm	90.0
Existing Shareholders	SEKm	825.2
Current NOS		702.1
Fair Value per share	SEK	1.18
Takeover scenario	USDm	162.1
Takeover Value	SEKm	1701.5
Existing Shareholders	SEKm	1611.5
Takeover Value per share	SEK	2.30

evaluation. This and other recent transactions highlight the strong industrial interest in POC systems. Applying a similar takeover scenario to our valuation model—where the business is not weighed down by royalty or milestone obligations but assumes a higher risk for the acquiring entity—supports a valuation of USD 160 million (SEK 1.6 billion), translating to SEK 2.3 per share.

Prolight Financial Summary

Prolight Financial Summary		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Revenue	SEKm	0.0	0.0	47.8	135.8	21.1	31.5	116.5	166.5	168.6	217.6	307.0	390.5	420.2
EBIT	SEKm	-135.8	-27.3	-4.0	78.5	-41.8	-37.1	42.0	86.9	84.7	129.1	213.6	291.9	316.1
EV/Sales	SEKm	-	-	10.4	3.6	23.5	15.7	4.3	3.0	2.9	2.3	1.6	1.3	1.2
EV/EBIT	SEKm	-	-	-123.5	6.3	-11.8	-13.3	11.8	5.7	5.9	3.8	2.3	1.7	1.6

Source: Emergers, Prolight

Prolight in short

Prolight Diagnostics was founded in 1999 in Lund by Masoud Khayyami, PhD in Chemistry from Lund University. The objective was to develop a diagnostic POC-test that could quickly determine whether a patient had suffered a heart attack or not.

In early 2022 Prolight acquired British company Psyros Diagnostics, and with it, its groundbreaking, proprietary digital, single molecule counting, immunoassay POC testing technology. In Q1'25 the company received two Notices of Intention to Grant from the European Patent Office (EPO) for protecting their core single molecule counting POC technology. The Psyros POC system is a compact and portable device with disposable cartridges that can perform tests directly from a drop of blood, with results from high sensitive assays available within 10 minutes or less. This novel technology could mark the beginning of a paradigm shift in POC testing for clinical diagnostics in many diverse clinical areas.

Future application areas



Source: Prolight

Initially the Psyros POC platform will be used to measure levels of the cardiac biomarker troponin, which is used as an aid to determine whether or not a patient is suffering from a myocardial infarction. The new ground-breaking, IP-protected technology may also open up the possibility of developing new POC-tests in a wide range of clinical areas. Many of them have previously only been possible to analyse in specialised laboratories. Psyros is now fully integrated with Prolight and functions as a fully owned subsidiary.

A partnership with Cambridge based The Technology Partnership (TTP) was initiated to develop the MicroFlex POC-platform. Prolight has contributed to the development of the well-proven ELISA technology into a Microformat,

which has been combined with the Flex membrane technology, developed by TTP. The further developed combination of these two technologies, Micro Flex, has the potential to achieve equivalent test performance as hospital laboratories, very well suited for distributed testing. In late 2022 Prolight signed a commercialisation agreement with TTP regarding the Micro Flex system, where Prolight will receive a share of future revenues. This however, is not included in our valuation.

During Q4'24, Prolight was granted a European patent for the MicroFlex system regarding the separation of plasma from whole blood within a fluidic consumable. The patent opens new potential business opportunities by incorporating the technology into other disposable fluidic systems. In Q1'25 Prolight received notice of allowance from the US Patent and Trademark Office (USPTO) for a patent application concerning the analytical device and reaction chamber for MicroFlex.

The Market for POCT and Cardiac Biomarkers

There is a clear and pressing demand for quick and accurate tests and analysis that can be conducted near the patient. The market is calling for more tests to be moved out of large hospital laboratories and closer to the healthcare providers who treat the patients. During the COVID-19 pandemic, there was a significant increase in interest for point-of-care testing (POCT), which helped people recognize the value of fast, easy, and effective testing right where the patient is being treated.

Today, many companies, clinics, individuals, politicians, and others understand that these kinds of tests can bring great benefits to patients, the healthcare system, and companies alike. As a result, the need for secure, precise, and high-quality POC-tests is expected to keep growing.

In January 2025, bioMérieux acquired the Norwegian company SpinChip Diagnostics for EUR 138m. On Dec 29, 2023 Roche announced that it will pay USD 295 m to acquire LumiraDx with an additional USD 55 m to fund operations until acquisition, estimated to be completed in mid 2024.

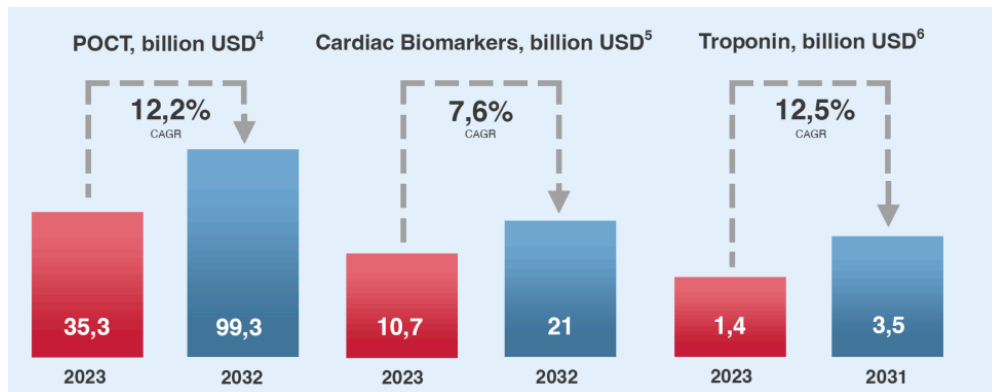
There are also other transactions in the field in the last couple of years. In early 2023, French POC company Biosynex acquired Chembio Diagnostics for USD 17,2 m to gain access to the company's POC tests for infectious diseases. In 2022, bioMérieux acquired Specific Diagnostics for USD 417 million for the Specific Reveal Rapid AST system. Specific Diagnostics is not really POC but it is a rapid system, i.e., providing quick result for immediate decision making. In 2021 Thermo Fisher Scientific acquired POC company Mesa Biotech for USD 450 m.

It is also worth mentioning in this context Abbott's acquisition of Alere for USD 5.8 billion in 2016, a deal that positioned them as a leader in the POC market. The acquisitions not only demonstrate that there has been a long-standing interest in point-of-care testing, but also that this interest is increasing.

In addition, the four founders of Psyros Diagnostics, today significant shareholders and working full time in Prolight, have previously developed another POC system, Vivacta, which they sold to the pharmaceutical company Novartis for 90 million USD.

According to Precedence Research, the global POCT market is expected to grow from USD 35.3 billion in 2023 to USD 99.3 billion by 2032. The primary drivers behind the overall growth of POC testing are projected to be the increased need for diagnostics in developing countries, the growing demand for central laboratory tests being shifted to clinics closer to the patient, such as primary care and elderly care facilities, rapid technological advancements, digitization in healthcare, increasing investments in research and development, and an aging population in the Western world.

Global Market and CAGR (USDbn)



Source: Presedence Research, IMARC Group, Coherent Market Insights, Prolight

The global market for bio-cardiac markers was valued at approximately USD 10.7 billion in 2023, and it is projected to grow at a rate of around 7.6 percent annually until 2032, reaching an estimated value of around USD 21 billion. The market for POC tests for bio-cardiac markers is driven by the increasing number of individuals with heart diseases and the growing awareness of the importance of early diagnosis and demand for prompt and targeted medical interventions.

The market for Troponin is expected to grow from USD 1.4bn in 2023 at a CAGR of 12.5% to reach an estimated USD 3.5bn in 2031.

Potential paradigm shift with new POC-tech

In Sweden, around 250,000 patients seek medical attention for chest pains every year, but less than 10% of these cases are ultimately confirmed as myocardial infarctions. The current diagnostic process involves an ECG and high sensitive troponin test that is sent to a centralized laboratory, resulting in lengthy waiting periods. Therefore the need for fast and accurate near patient testing has a very high demand on the market. Moreover, this means that the remaining 90% of patients who do not have myocardial infarctions still undergo the same examination. However, Prolight's device offers results for high sensitive troponin test within 10 minutes, enabling caregivers to allocate resources more efficiently to patients requiring urgent assistance.

Other advantages of the portable, proprietary, IP-protected, ultra-sensitive single molecule counting POC-system is the simplicity and low production costs. Today, low production costs is a pre-requisite to be able to offer a very competitive price and to achieve successful sales on the POC market.

Showcasing strong evidence

In late November 2022, Prolight unveiled evidence of the high-performance capability of its high-sensitivity immunoassay detecting single molecules of TSH (Thyroid Stimulating Hormone) at low levels. In June and November 2023 Prolight announced that the device also showed proof-of-performance for high-sensitive troponin. By utilizing serum and whole blood samples from human subjects, quantitative measurements of troponin levels were conducted within the range of single digit nanograms per liter (ng/L). This strengthens Prolight's case relative to competing solutions because it means avoiding centrifugation and cell separation, which lowers costs. It also requires a smaller volume of blood, which is an advantage for capillary blood samples. These concentrations are indicative of those required for rule out of myocardial infarction as defined by the European Cardiology Society's Guidelines on Fourth Universal Definition of Myocardial Infarction. To reach

single digit nanograms per liter (ng/L) is an extremely strong technical milestone given it has only been achieved by a very limited number of companies and even fewer for POC tests.

The company's pioneering research led to a prestigious grant from SBRI Healthcare. During 2023, phase two of the grant, totaling approximately GBP 1m, was successfully completed. The grant was conditional upon achieving certain milestones, all of which have now been met or exceeded, including the development of six fully functional laboratory prototypes. Further, in May of 2024, the company was also awarded an NIHR Invention for Innovation (i4i) Product Development Award (PDA) of SEK 17M (£1,26M) in collaboration with among others, Guy's and St Thomas' NHS Foundation Trust, and King's College London. These prestigious grants have accelerated the development of the digital POC-system and represent significant recognitions. The first results from the pre-clinical validation study showed that the portable commercial prototype Psyros, with low cost optical module had a very good correlation with the larger and significantly more costly inhouse laboratory prototypes.

Significant potential gains with POC-testing

Prolight's POC-testing device comprises a user-friendly disposable cartridge and a portable analysis unit. It eliminates the need for costly components, leading to cost-effective production. This innovative technology also unlocks opportunities for the development of novel POC tests in diverse clinical domains where many have previously been limited to specialized laboratories offering high sensitivity and precision. There are many potential future clinical applications across many diverse clinical areas for critical care as well as primary care e.g. neuropathology (such as dementia and traumatic brain injuries), immune system disorders (like sepsis and autoimmune diseases), and virus detection, see figure on page 2.

Expanding into additional USD multibillion areas

Clinical Area	Market Value (USD)
Neuropathology	5.9 billion (2019)
Immune System Dysfunctions, such as sepsis	5.5 billion (2022)
Virus Detection	4.1 billion (2021)

Source: Emergers, Marketsandmarkets, MordorIntelligence.

The sensitivity and accuracy of this single molecule POC immunoassay, are expected to match or exceed those of PCR tests currently performed on large laboratory instruments to detect infectious virus particles like COVID. The highly significant difference is that the response time can be as short as a few minutes and not hours or days.

Short roadmap to launch

After announcing the proof-of-performance in mid-June and November, Prolight is now focused on developing a state-of-the-art commercial instrument for its POC digital immunoassay system in compliance with all regulatory standards required by IVDR. They have partnered with Integrated Technologies Limited (ITL) for industrialization of the instrument and FlexMedical Solutions (FlexMedical) as the CMO partner for manufacturing of the cartridge, and are preparing for the IVDR certification. We expect launch and commercialization in 2026.

Timeline

2025

Pre-validation studies	Pilot line ready to support clinical study	Assay design freeze	Instrument design transfer to manufacturing	Full clinical performance study
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2026

Regulatory approval (IVDR) Notified Body	Commercial launch high sensitive Troponin
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2027

2028

Commercial launch BNP

2029

2030

Commercial launch D-Dimer

2031

Troponin 20% penetration

Source: Prolight, Emergers

High potential for the long-term investor

While we acknowledge the potential for Prolight and its POC system to venture into other lucrative clinical areas and incorporate multiplexing, our current valuation focuses exclusively on the POC system's application for high sensitive troponin tests.

Since there are no digital POC systems available in the market yet, it is difficult to make accurate estimates about revenue, costs, and cash flow. However, based on an estimated average price of USD 20 per high-sensitive troponin POC-test and an annual suspected heart attack rate of 2.5% of the population, we can make some rough calculations about Prolight's potential earnings. Assuming the product launches in 2026, and with a projected peak market penetration of 30% in 2034, corresponding to 10m tests globally, we estimate sales of SEK 2.4 billion in 2035. It's worth noting we do not expect Prolight to take the project all the way to market alone and will probably seek a commercial partner instead.

Following the proof-of-performance and positive pre-clinical results, we now estimate a cumulative 90% (82%) probability that Prolight will successfully complete the remaining steps, including developing the fully functional commercial product, obtaining IVDR approval including the required clinical validation, and finding a commercial partner for the launch, on expected time. Future revenues may come from various partner set-ups. In our model we have chosen one alternative and used it as a possible proxy where we estimate USD 20 million in combined upfront and milestone payments (USD 5m when finding a licensee, USD 5m when IVDR approval is in place and USD 10m at market launch), along with a 15% royalty on sales. However, since the final partnership set up may look very different for Prolight this is just one model we have used as an assumption.

For BNP and D-Dimer, we anticipate an incidence rate of 2% and 0.5% within the population, with a projected peak market penetration of 10%. This would result in approximately 1.9 million and 700,000 tests respectively by the year 2034. Assuming a price per test of USD 40 and USD 100 for BNP and D-Dimer

tests respectively, the combined sales revenue is estimated to reach USD 150 million in 2034.

Furthermore, we anticipate that these tests will be introduced through a partnership, wherein Prolight will receive a 12.5% royalty. All future earnings have been adjusted for risk with a 90% (82%) likelihood that the assays reach commercial phase, leaving Prolight with earnings of a combined (troponin + BNP + D-Dimer) of around SEK 420m in 2034.

Financial position

Following the exercise of TO6 and TO7, the company now holds around SEK 15.7m in cash. In addition, the company will continue to receive additional money from the Product Development Award (PDA) received in May 2024 of SEK 17m. A signed agreement with a potential industrial partner ahead of the estimated launch may provide even more capital to the company.

As for financing the continued development, we estimate that Prolight will need around SEK 90 million in additional capital. Taking this into account, we estimate a fair value range of SEK 1.15-1.25 (0.9-1.0) per share. It is important to note that the company's expansion into other clinical areas and the implementation of multiplexing would substantially enhance its valuation, but these endeavors are anticipated to occur several years down the line.

Sum of the Parts NPV

Troponin	USDm	67.6
BNP	USDm	11.5
D-Dimer	USDm	8.0
Total	USDm	87.2
USDSEK		10.5
Fair Value	SEKm	915.2
New Equity	SEKm	90.0
Existing Shareholders	SEKm	825.2
Current NOS		702.1
Fair Value per share	SEK	1.18
Takeover scenario	USDm	162.1
Takeover Value	SEKm	1701.5
Existing Shareholders	SEKm	1611.5
Takeover Value per share	SEK	2.30

Source: Emergers

NPV Calculation for Prolight and potential Licensee, Troponin

		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Suspected Heart Attacks in 7MM		19.5	19.8	20.1	20.4	20.7	21.0	21.3	21.6	22.0	22.3	22.6	23.0	23.3
Suspected Heart Attacks in ROW		10.5	10.7	10.8	11.0	11.1	11.3	11.5	11.7	11.8	12.0	12.2	12.4	12.6
Total Suspected Heart Attacks		30.0	30.5	30.9	31.4	31.8	32.3	32.8	33.3	33.8	34.3	34.8	35.3	35.9
Penetration				0%	1%	3%	7%	12%	15%	18%	25%	28%	30%	28%
Number of tests	M	0.0	0.0	0.1	0.2	1.0	2.3	3.9	5.0	6.1	8.6	9.7	10.6	10.0
Average price per test	USD			20.00	20.20	20.40	20.61	20.81	21.02	21.23	21.44	21.66	21.87	22.09
Sales	USDm			1.6	4.1	19.5	46.6	81.9	105.0	129.1	183.9	211.1	231.9	221.9
Sales Forecasts	USDm	-	-	1.6	4.1	19.5	46.6	81.9	105.0	129.1	183.9	211.1	231.9	221.9

Upfront Payments to Prolight USDm		-	5.0											
Milestone Payments														
Proof of Performance	USDm	-	-	-	-	-	-	-	-	-	-	-	-	-
Development Prototype	USDm	-	-	-	-	-	-	-	-	-	-	-	-	-
IVDR Approval	USDm	-	-	5.0	-	-	-	-	-	-	-	-	-	-
Launch	USDm	-	-	10.0	-	-	-	-	-	-	-	-	-	-

RISK ADJUSTED		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Risk Adjusted Sales Forecas 90.0%		-	-	1.4	3.7	17.5	42.0	73.7	94	116	165	190	209	200
Risk Adjusted Upfront & Milestones		-	4.5	13.5	-	-	-	-	-	-	-	-	-	-

Licensee Cash Flows and NPV		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
COGS	25%	0%	0%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
SG&A	20%	0%	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Royalties Payable to Licensor														
Royalty Rate	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Royalty Payments to Licensor	0.0	0.0	0.2	0.6	2.6	6.3	11.1	14.2	17.4	24.8	28.5	31.3	30.0	
Licensee Cash Flows (pre-tax)	0.0	-4.5	-12.9	1.5	7.0	16.8	29.5	37.8	46.5	66.2	76.0	83.5	79.9	
Taxable Profit	0.0	-4.5	-12.9	0.0	0.0	7.9	29.5	37.8	46.5	66.2	76.0	83.5	79.9	
Income Tax	0.0	0.0	0.0	0.0	0.0	1.7	6.2	7.9	9.8	13.9	16.0	17.5	16.8	
Licensee Cash Flows (after-tax)	0.0	-4.5	-12.9	1.5	7.0	15.1	23.3	29.9	36.7	52.3	60.0	66.0	63.1	
Discount Period	0.0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	
Discount Rate	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	
Discount Factor	1.00	0.96	0.88	0.82	0.75	0.69	0.64	0.59	0.54	0.50	0.46	0.42	0.39	
Net Present Value			266.36											
Terminal Value			265.85											
Licensee NPV			532.21											

Prolight Cash Flows and NPV		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Prolight Cash Flows (pre-tax)	0.00	4.50	13.72	0.56	2.63	6.29	11.06	14.17	17.43	24.82	28.50	31.31	29.95	
Income Tax	0.0	0.9	2.9	0.1	0.6	1.3	2.3	3.0	3.7	5.2	6.0	6.6	6.3	
Prolight Cash Flows (after-tax)	0.0	3.6	10.8	0.4	2.1	5.0	8.7	11.2	13.8	19.6	22.5	24.7	23.7	
Discount Period	0.0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	
Discount Rate	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	
Discount Factor	1.00	0.92	0.78	0.66	0.56	0.48	0.41	0.34	0.29	0.25	0.21	0.18	0.15	
Net Present Value			56.60											
Terminal Value			10.98											
Licensor NPV			67.58											

Please note: Model continues beyond 2035 but is cut off for the sake of overview

WACC		
Equity Beta	Licensee	Licensor
Unlevered beta	1.30	2.50
Debt to Total Capital (D/(D+E))	20.0%	0.0%
Equity to Total Capital ratio (E/(D+E))	80.0%	100.0%
Debt to Equity (D/E)	25.0%	0.0%
Tax rate	21.0%	21.0%
Relevered beta	1.56	2.50
Capital Asset Pricing Model		
Risk-free rate (20 yr. U.S. gov. bond yield)	4.0%	4.0%
Market Risk Premium (Damodaran)	3.5%	3.5%
Size premium	0.0%	5.0%
Cost of equity	9.4%	17.8%
WACC		
Cost of Equity	9.4%	17.8%
Pre-tax cost of debt	6.0%	6.0%
Post-tax cost of debt	4.7%	4.7%
% net debt	20.0%	0.0%
Discount Rate	8.5%	17.8%

Probability of Success		Cumul.
Proof of Performance	100.0%	100.0%
Development Prototype	100.0%	100.0%
IVDR Approval & Launch	90.0%	90.0%

TOTAL RISK ADJUSTED NPV	
Licensee NPV	532.21
Prolight NPV	67.58
Total NPV	599.79

PROLIGHT FAIR VALUE		
Fair Value	USDm	67.58
USD/SEK		10.5
Fair Value	SEKm	709.6

Source: Emergers

NPV Calculation for Prolight and potential Licensee, BNP

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Suspected Heart Failures in 7MM	7.8	7.9	8.0	8.2	8.3	8.4	8.5	8.7	8.8	8.9	9.1	9.2	9.3
Suspected Heart Failures in ROW	7.8	7.9	8.0	8.2	8.3	8.4	8.5	8.7	8.8	8.9	9.1	9.2	9.3
Total Suspected Heart Failures	15.6	15.8	16.1	16.3	16.6	16.8	17.1	17.3	17.6	17.8	18.1	18.4	18.7
Penetration						1%	2%	4%	6%	8%	10%	10%	10%
Number of tests	M	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.7	1.1	1.4	1.8	1.9
Average price per test	USD					40.00	40.40	40.80	41.21	41.62	42.04	42.46	42.89
Sales Forecasts	USDm	-	-	-	-	6.7	13.8	28.3	43.5	59.4	76.1	78.0	80.0
Upfront Payments to Prolight USDm		-	-	-	2.0	-	-	-	-	-	-	-	-
Milestone Payments													
Proof of Performance	USDm	-	-	-	-	-	-	-	-	-	-	-	-
Development Prototype	USDm	-	-	-	-	-	-	-	-	-	-	-	-
IVDR Approval	USDm	-	-	-	1.0	-	-	-	-	-	-	-	-
Launch	USDm	-	-	-	-	7.0	-	-	-	-	-	-	-
RISK ADJUSTED													
Risk Adjusted Sales Forecas 60.8%		-	-	-	-	4.1	8.4	17	26	36	46	47	49
Risk Adjusted Upfront & Milestones		-	-	-	1.5	0.6	4.3	-	-	-	-	-	-
Licensee Cash Flows and NPV													
COGS	25%	0%	0%	0%	0%	25%	25%	25%	25%	25%	25%	25%	25%
SG&A	20%	0%	0%	0%	0%	20%	20%	20%	20%	20%	20%	20%	20%
Royalties Payable to Licensor													
Royalty Rate		12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Royalty Payments to Licensor		0.0	0.0	0.0	0.0	0.5	1.0	2.1	3.3	4.5	5.8	5.9	6.1
Licensee Cash Flows (pre-tax)		0.0	0.0	0.0	-1.5	-0.6	-2.5	3.6	7.3	11.2	15.3	19.7	20.7
Taxable Profit		0.0	0.0	0.0	-1.5	-0.6	-2.5	0.0	6.2	11.2	15.3	19.7	20.1
Income Tax		0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.4	3.2	4.1	4.2	4.3
Licensee Cash Flows (after-tax)		0.0	0.0	0.0	-1.5	-0.6	-2.5	3.6	6.0	8.9	12.1	15.5	16.3
Discount Period		0.0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
Discount Rate		8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Discount Factor		1.00	0.96	0.88	0.82	0.75	0.69	0.64	0.59	0.54	0.50	0.46	0.39
Net Present Value			56.02										
Terminal Value			48.11										
Licensee NPV			104.13										
Prolight Cash Flows and NPV													
Prolight Cash Flows (pre-tax)		0.00	0.00	0.00	1.50	0.61	4.76	1.05	2.15	3.30	4.51	5.78	6.07
Income Tax		0.0	0.0	0.0	0.3	0.1	1.0	0.2	0.5	0.7	0.9	1.2	1.3
Prolight Cash Flows (after-tax)		0.0	0.0	0.0	1.2	0.5	3.8	0.8	1.7	2.6	3.6	4.6	4.8
Discount Period		0.0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
Discount Rate		17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%
Discount Factor		1.00	0.92	0.78	0.66	0.56	0.48	0.41	0.34	0.29	0.25	0.21	0.18
Net Present Value			9.98										
Terminal Value			1.56										
Licensor NPV			11.54										

Please note: Model continues beyond 2035 but is cut off for the sake of overview

WACC		
Equity Beta	Licensee	Licensor
Unlevered beta	1.30	2.50
Debt to Total Capital (D/(D+E))	20.0%	0.0%
Equity to Total Capital ratio (E/(D+E))	80.0%	100.0%
Debt to Equity (D/E)	25.0%	0.0%
Tax rate	21.0%	21.0%
Relevered beta	1.56	2.50
Capital Asset Pricing Model		
Risk-free rate (20 yr. U.S. gov. bond yield)	4.0%	4.0%
Market Risk Premium (Damodaran)	3.5%	3.5%
Size premium	0.0%	5.0%
Cost of equity	9.4%	17.8%
WACC		
Cost of Equity	9.4%	17.8%
Pre-tax cost of debt	6.0%	6.0%
Post-tax cost of debt	4.7%	4.7%
% net debt	20.0%	0.0%
Discount Rate	8.5%	17.8%

Probability of Success		
		Cumul.
Proof of Performance	75.0%	75.0%
Development Prototype	90.0%	67.5%
IVDR Approval	90.0%	60.8%
Launch	100.0%	60.8%
TOTAL RISK ADJUSTED NPV		
Licensee NPV		104.13
Prolight NPV		11.54
Total NPV		115.67
PROLIGHT FAIR VALUE		
Fair Value	USDm	11.54
USD/SEK		10.5
Fair Value	SEKm	121.2

Source: Emergers

NPV Calculation for Prolight and potential Licensee, D-Dimer

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Total D-Dimer Tests 7MM	4.0	4.0	4.1	4.2	4.2	4.3	4.3	4.4	4.5	4.5	4.6	4.7	4.8
Total D-Dimer Tests in ROW	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.4
Total D-Dimer Tests	6.0	6.1	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1
Penetration							1%	2%	3%	4%	10%	10%	10%
Number of tests	M	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.7	0.7
Average price per test	USD						100.00	101.00	102.01	103.03	104.06	105.10	106.15
Sales	USDm				0.0	0.0	6.5	13.4	20.6	28.1	72.1	73.9	75.7
Sales Forecasts	USDm	-	-	-	-	-	6.5	13.4	20.6	28.1	72.1	73.9	75.7
Upfront Payments to Prolight USDm	-	-	-	-	-	1.0	-	-	-	-	-	-	-
Milestone Payments													
Proof of Performance	USDm	-	-	-	-	-	-	-	-	-	-	-	-
Development Prototype	USDm	-	-	-	-	-	-	-	-	-	-	-	-
IVDR Approval	USDm	-	-	-	-	-	1.0	-	-	-	-	-	-
Launch	USDm	-	-	-	-	-	6.0	-	-	-	-	-	-
RISK ADJUSTED	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Risk Adjusted Sales Forecas 60.8%	-	-	-	-	-	-	4.0	8	12	17	44	45	46
Risk Adjusted Upfront & Milestones	-	-	-	-	-	0.6	4.3	-	-	-	-	-	-
Licensee Cash Flows and NPV	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
COGS	25%	0%	0%	0%	0%	0%	25%	25%	25%	25%	25%	25%	25%
SG&A	20%	0%	0%	0%	0%	0%	20%	20%	20%	20%	20%	20%	20%
Royalties Payable to Licensor													
Royalty Rate	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Royalty Payments to Licensor	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.6	2.1	5.5	5.6	5.8
Licensee Cash Flows (pre-tax)	0.0	0.0	0.0	0.0	0.0	-0.6	-2.6	3.5	5.3	7.3	18.6	19.1	19.6
Taxable Profit	0.0	0.0	0.0	0.0	0.0	-0.6	-2.6	0.3	5.3	7.3	18.6	19.1	19.6
Income Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	1.5	3.9	4.0	4.1
Licensee Cash Flows (after-tax)	0.0	0.0	0.0	0.0	0.0	-0.6	-2.6	3.4	4.2	5.7	14.7	15.1	15.4
Discount Period	0.0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5
Discount Rate	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Discount Factor	0.00	0.96	0.88	0.82	0.75	0.69	0.64	0.59	0.54	0.50	0.46	0.42	0.39
Net Present Value		44.38											
Terminal Value		30.37											
Licensee NPV		74.75											
Prolight Cash Flows and NPV	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Prolight Cash Flows (pre-tax)	0.00	0.00	0.00	0.00	0.00	0.61	4.75	1.02	1.56	2.14	5.47	5.61	5.75
Income Tax	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.2	0.3	0.4	1.1	1.2	1.2
Prolight Cash Flows (after-tax)	0.0	0.0	0.0	0.0	0.0	0.5	3.8	0.8	1.2	1.7	4.3	4.4	4.5
Discount Period	0.0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5
Discount Rate	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%	17.8%
Discount Factor	1.00	0.92	0.78	0.66	0.56	0.48	0.41	0.34	0.29	0.25	0.21	0.18	0.15
Net Present Value		7.05											
Terminal Value		0.98											
Licensor NPV		8.04											

Please note: Model continues beyond 2035 but is cut off for the sake of overview

WACC			Probability of Success		Cumul.
Equity Beta	Licensee	Licensor	Proof of Performance	75.0%	75.0%
Unlevered beta	1.30	2.50	Development Prototype	90.0%	67.5%
Debt to Total Capital (D/(D+E))	20.0%	0.0%	IVDR Approval	90.0%	60.8%
Equity to Total Capital ratio (E/(D+E))	80.0%	100.0%	Launch	100.0%	60.8%
Debt to Equity (D/E)	25.0%	0.0%			
Tax rate	21.0%	21.0%			
Relevered beta	1.56	2.50			
Capital Asset Pricing Model			TOTAL RISK ADJUSTED NPV		
Risk-free rate (20 yr. U.S. gov. bond yield)	4.0%	4.0%	Licensee NPV	74.75	
Market Risk Premium (Damodaran)	3.5%	3.5%	Prolight NPV	8.04	
Size premium	0.0%	5.0%	Total NPV	82.79	
Cost of equity	9.4%	17.8%			
WACC			PROLIGHT FAIR VALUE		
Cost of Equity	9.4%	17.8%	Fair Value	USDm	8.04
Pre-tax cost of debt	6.0%	6.0%	USD/SEK		10.5
Post-tax cost of debt	4.7%	4.7%	Fair Value	SEKm	84.4
% net debt	20.0%	0.0%			
Discount Rate	8.5%	17.8%			

Source: Emergers

Risks

Development risk. Even though the company has achieved proof of performance for its technology, there are still development risks on the road to a commercial product, primarily with the development of a commercial instrument, ensuring that this meets the expected cost profile, and obtaining regulatory approval according to IVDR and other national regulations.

Delays. In addition to the potential development risks, delays are common in the development of medical technology, which then shifts revenue and profitability further into the future.

Liquidity. With prolonged regulatory processes, or difficulties finding the right licensee, there's a risk Prolight might run out of cash before reaching market launch.

Unbroken ground. The digital immunoassay market is a new market on which Prolight is set to conquer. This provides both great opportunities but also higher risks as the POC technology will be new to everyone.

Small player. Prolight doesn't have the financial muscle nor the sales force to single handedly take their device to market and will therefore be in the hands of a future partner, which could leverage their big size, disadvantaging Prolight.

Experienced management team

Chairman of the board Masoud Khayyami is Doctor of Applied Biochemistry from Lund University. Extensive experience in research, medicine, medtech, and biotechnology sectors. Solid entrepreneurial experience (such as Prolight Diagnostics AB, Lumito AB, and Gasporox AB) and expertise in applied medicine, microbiology, and biotech, particularly in the development of various types of biomolecules for commercial use and research in biological applications. Masoud serves as a board member in both medtech companies and other companies. Engaged with Prolight Diagnostics since 1999 and a founder of the company.

CEO Ulf Bladin holds a Degree of Bachelor of Science in Medical Science from Karolinska Institutet and an MSc from the Stockholm School of Economics. Ulf has previously held positions such as General Manager, Vice President for the EMEA region at Hycor Biomedical, Vice President of Commercial Operations Europe at Thermo Fisher Scientific Immuno Diagnostics Division, Vice President with global responsibility for Marketing, Health Economy, Corporate Communications, Scientific & Regulatory Affairs at Phadia. He has also held leading commercial positions in the pharmaceutical industry at Pfizer and Merck Sharp & Dohme.

CTO Steve Ross holds two degrees, one in Chemistry and one in Mathematics with Statistics, completed a PhD at Edinburgh University in Synthetic Chemistry, and conducted postdoctoral research at the University of Utah (Royal Society Fellowship), CNRS in Toulouse, France (Marie Curie Fellowship), and the University of Oxford. Co-founder of Psyros Diagnostics and has been working in in vitro diagnostics for over 15 years. The industrial career began in 2001 at PiezoOptic, where he developed pyroelectric sensors for monitoring exposure to toxic gases. In 2006, he co-founded Vivacta, a startup company that utilized the same pyroelectric technology, this time for point-of-care diagnostics.

CSO Aileen McGettrick completed a PhD at the University of Oxford in Biochemistry and Genetics, followed by a postdoctoral research fellowship at

Oxford and at the Joslin Diabetes Center in Boston, USA (affiliated with Harvard Medical School), focusing on genetics of type 2 diabetes. Co-founder of Psyros Diagnostics and has 15 years of experience in developing tests for medical technology products. Formerly served as the Group Head of Assay Development, leading a multidisciplinary team at Vivacta Ltd and Novartis in patient-side testing, specializing in the detection of targeted analytes in whole blood for point-of-care diagnostics.

Board Member Tobias Volker Holds a doctoral degree in Biochemistry and an MBA from INSEAD. Over the past decades, he has made significant contributions to the development of point-of-care diagnostics for cardiovascular diseases and other medical areas. Led the international development of the Triage platform and introduced the cardiac panel and the first reimbursable BNP analysis in Europe while working at Biosite. Was responsible for the launch of Quo-Test HbA1c at Quotient Diagnostics and participated in the reverse acquisition that later became EKF Diagnostics. Further gained insights into the POC industry while working at Cholestech, Alere, and more recently at Expand Healthcare Consulting GmbH, where he provided high-level advisory services to private companies and nonprofit organizations. Serves as Chairman of the Board at Expand Healthcare Consulting GmbH and as a Board Member at Ominilabs.

COO Karl Bullen holds a Bachelor of Engineering from the University of Greenwich. Karl has a proven track record within operational leadership roles having a wide range of experience in regulated manufacturing encompassing aerospace, medical devices and pharmaceuticals. Karl previously held the position of Head of Operations for Swedish contract pharmaceutical manufacturer Recipharm and has also held manufacturing leadership roles at defense giant BAE Systems and medical science company Olympus. Karl has a strong knowledge of lean principles and operational excellence that has been used to develop high performing teams and effective processes that deliver results.

Board member Maria Holmlund holds a degree of Bachelor of Science in Chemistry and Biology from Uppsala University, and a Master of Science from the University of North Carolina. 30 years of experience in life sciences and diagnostics. Held senior positions focusing on marketing in international diagnostics companies such as Pharmacia Diagnostics, Boehringer Mannheim, Roche Scandinavia, Phadia, and Thermo Fisher Scientific. Board member of Biovica AB. CEO of Prolight Diagnostics AB between 2016-2020.

Board member Kiarash Farr is a Master of Science in Engineering Physics from Royal Institute of Technology (KTH) Stockholm and Management Acceleration Program from INSEAD, Fontainebleau France. Kiarash has previously been Senior Vice President of Commercial Operations at Boule Diagnostics, Senior Director, Commercial Operations of the EMEA region at Hycor Biomedical, Sales Director Key account management at Thermo Fisher Scientific Immuno Diagnostics Division, and Business Director Asia at IBA with various leadership positions in Germany, China and India.

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