

Important Milestones Reached Enables Further Growth

Fluicell AB (publ) ("Fluicell" or "the Company") offers innovative R&D instruments for both single-cell analysis and 3D bioprinting business segments in which we forecast will enter a fast-growing pace, where a revenue of SEK 68.6m is estimated for the year 2026 for the Company. Furthermore, Fluicell is developing tissue engineered products, targeting areas such as cardiac repair, diabetes, and eye disorders, where successful progress in related projects constitute as strong value drivers ahead. Based on an applied P/S-multiple of 5.5x on estimated revenues and a discount rate of 12%, this yields an implied value per share of SEK 9.8 in a Base scenario, where steps in the right direction are expected to reduce the current valuation discount.

▪ Innovative Offerings Lowering Cost of Research

Fluicell offers innovative technology platforms, products and R&D solutions that enables studies on single- and multi-cell level. Fluicell's solutions can perform tests with fewer cells, use less testing substance, provide more flexibility, lower cost and need for biological material for the users, as well as the ability to generate high value data in ways previously not possible. Analyst Group see this as a strong value proposition, contributing to Fluicell's growth along with market trends.

▪ Operating in Vast Markets with Double-Digit Growth

The global markets for both single-cell analysis and 3D bioprinting were estimated to be worth USD 3.7bn and USD 1.9bn respectively in 2022. Combined, these two markets are projected to reach USD 12.5bn in 2027 which represent a CAGR of 17%. Additionally, the tissue engineering market was estimated to USD 15.9bn in 2022 and is forecasted to reach USD 33.5bn by 2028, corresponding to a CAGR of 12.9%. As a leader in single-cell analysis and 3D bioprinting, Fluicell will benefit from these market tailwinds to capitalize on the demand for advanced research instruments going forward.

▪ Important Milestones Reached in In-Vitro Studies

In March 2023, Fluicell reached important milestones regarding the in-vitro development of tissue therapeutics against type 1 diabetes. Fluicell are now able to print up to 200 insulin producing islet tissues in the same trial which corresponds to the number of transplanted islets that has been shown to have a beneficial effect in mice. The milestones are a step towards generating candidates for in-vivo testing which is estimated to be initiated in 2024.

▪ Extended collaboration with Roche

In February 2023, Fluicell announced that the Company has extended the collaboration with Roche centred on Fluicell's Biopixlar where the aim is to investigate optimization of bioprinted heart tissues for drug safety. The project has several milestones with the estimated completion in December 2023. Analyst Group views this project as one of Fluicell's main value driving activities, where opportunities for licensing deals are anticipated to occur in a successful scenario.

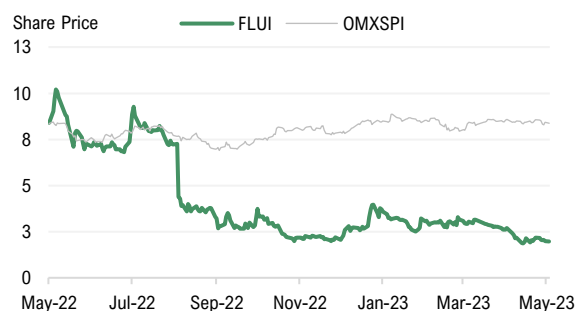
VALUATION RANGE



KEY INFORMATION

Share Price (2023-05-29)	1.98
Shares Outstanding	24,492,532
Market Cap (SEKm)	48.5
Net cash(-)/debt(+)	(SEKm) -15.0
Enterprise Value (SEKm)	33.5
List	Nasdaq First North Growth Market
Quarterly report 2 2023	2023-08-18

SHARE PRICE DEVELOPMENT



OWNERS (SOURCE: FLUICELL IR PAGE 2023-03-31)

Avanza Pension	5.4%
von der Osten-Sacken, Bernhard	3.7%
Viola Vitalis AB	3.2%
Nilsson, Henrik	2.0%
Nordnet Pensionsförsäkring AB	2.0%

Estimates (SEKm)	2023E	2024E	2025E	2026E
Total Revenue	13.0	22.8	45.1	68.6
COGS	-2.4	-4.3	-9.0	-13.7
Gross Profit	10.6	18.4	36.1	54.9
Gross Margin	81.9%	81.1%	80.0%	80.0%
Operating Costs	-29.5	-31.7	-34.1	-36.7
EBITDA	-18.9	-13.3	2.0	18.2
EBITDA Margin	neg	neg	4.4%	26.6%
P/S	4.1x	2.2x	1.1x	0.7x
EV/S	2.8x	1.6x	0.7x	0.5x
EV/EBITDA	neg	neg	16.9x	1.8x

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ABOUT THE COMPANY

Fluicell provides research solutions for drug development and 3D bioprinting applications worldwide. The Company also offers solutions for maintaining localized compound delivery in single-cell experiments, thus enabling control of the chemical environment around single intact cells in tissue or cell cultures. Additionally, Fluicell's strategic focus on tissue-based therapeutics within regenerative medicine and tissue-based disease models for drug development continues to mature. The company was founded in 2012 in Gothenburg, Sweden, and is listed on Nasdaq First North Growth Market since 2018.

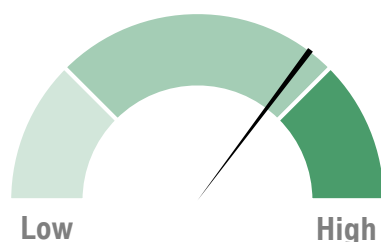
CEO AND CHAIRMAN

CEO	Victoire Viannay
Chairman	Stefan Tilk

ANALYST

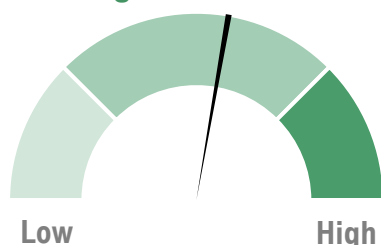
Namn	Rosan Tekin
Phone	+46 731 58 94 87
E-mail	rosan.tekin@analystgroup.se

Value Drivers



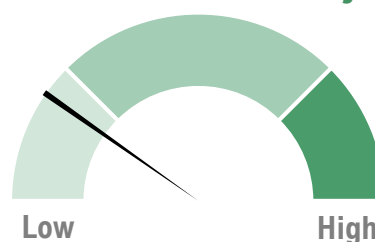
Fluicell's target markets display double-digit CAGR growth and contain structural drivers that are in the Company's favour. As the adoption of 3D bioprinting, single-cell technology and regenerative medicine grows, Fluicell's maturity is well-positioned to capitalize with the help of underlying market trends, with a strong value proposition. Value driving activities to monitor include new orders or signing deals with partners as well as the focused development of tissue therapeutics in unmet areas of need and disease models.

Management & Board



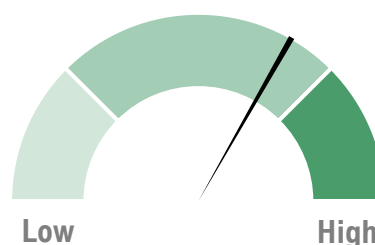
The management and the board of Fluicell have decades of experience in various fields related to research and life science. Gavin Jeffries, CTO, board member and co-founder who has been active in driving the Company forward since the start, as well as co-founder Aldo Jesorka, are listed among the top 20 shareholders. For a higher rating, we would like to see a higher insider ownership, which is approximately 2.5% according to the database Holdings.

Historical Profitability



Similar to other research and development companies in the maturation phase like Fluicell, a history of weaker profitability is observed due to the inherent resource-intensiveness and high investment requirements of the medical research equipment as well as long sales cycles. As a result, the Company must rely on equity financing to run the maturation and will most likely continue to do so until a critical sales volume has been reached. The rating is based on historical results and is not forward-looking.

Risk Profile



Fluicell has commercialized products and has increased partners within academia, as well as the pharma industry, which lowers the operational risk. However, it is important to monitor the Company's liquidity since there is a considerable risk that additional external financing would be required if the revenue growth does not keep up with the growing operational cost base going forward.

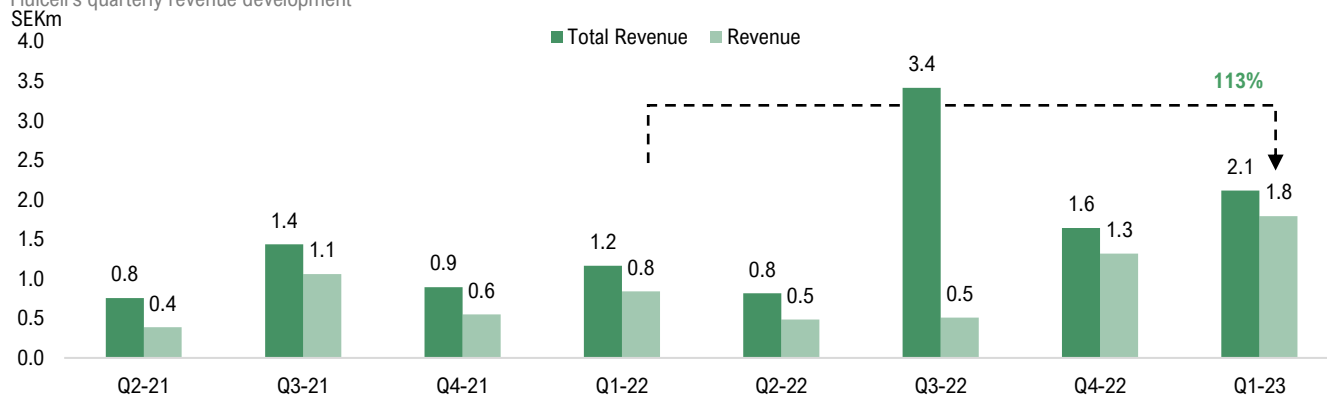
Highest Revenue on a Quarterly Basis

113%
REVENUE
GROWTH
YOY
Q1-23

During Q1-23, the revenue amounted to SEK 1.8m, compared to SEK 0.8m in Q1-22, which corresponds to a YoY increase of 113%. Compared to the previous quarter of Q4-22 where the revenue amounted to SEK 1.3m, the increase corresponded to 36%. The top-line results were relatively in line with our expectations, and it is assuring to see that Fluicell is keeping up the momentum in sales. According to CEO Victoire Viannay, the revenue has not reached the Company's internal goals quite yet, but with further efforts, there is potential to reach higher levels. For example, in March, Fluicell launched the upgraded version of their ion channel screening platform Dynaflow Resolve, and additionally, Fluicell released Dynascout, a lighter version of the platform. Focusing on development of new products and services is of paramount importance since it will assist the Company to attract new customers and drive the revenue further.

Fluicell Achieved the Highest Revenue on a Quarterly Basis During the Period Where the Revenue Amounted to SEK 1.8m.

Fluicell's quarterly revenue development



Source: Company

Operating Results

SEK -5.4m
OPERATING LOSS
Q1-23

The operating result during Q1-23 amounted to SEK -5.4m, compared to SEK -4.9m in Q1-22, corresponding to an increased loss of SEK 0.5m, QoQ, the operating result improved with SEK 1.3m compared to Q4-22. We have previously mentioned that the cost base is higher than what we would like to see in relation to the revenue, as Fluicell continues with R&D in new areas to build assets and create growth for long-term deliverables. However, it is a positive sign that Fluicell has managed to slim down the cost base while increasing the revenue during this quarter. The Company mentioned in the report that the EBITDA was SEK 0.9m better than estimated, and that the development is successfully continuing with more controlled cost levels. Overall, we see that Fluicell are continuing to do well operationally while maintaining a greater financial discipline.

Cash Position and Burn Rate

SEK 15m
CASH POSITION
END OF Q1-23

At the end of Q1-23, Fluicell's cash balance amounted to SEK 15m, compared to SEK 24.5m at the end of Q4-22, corresponding to a net change in cash of SEK -9.5m. Fluicell burn rate during Q1-23 amounted to SEK -3.2m per month. The burn rate was exceptionally high due to a one-time expense related to deferred tax, which affected the change in working capital with SEK -3m. Adjusted for the one-time item, the burn rate would amount to SEK -2.1m, and SEK -1.9m on an LTM basis. Moreover, Fluicell has warrants outstanding of series TO 4 that are due to strike in June 2023 and have the potential to extend the cash runway. The outstanding warrants are estimated to generate up to SEK 16.4m before expenses, which are estimated to 10%, given full subscription, which equals approximately SEK 14.8 in net proceeds. Given the current cash position of SEK 15m, assumed net proceeds of SEK 14.8 from TO4 warrants in June 2023, and an assumed burn rate of SEK -2.0m per month which Analyst Group believe is fair to assume going forward, Fluicell is estimated to be financed until the end of H1-24, all else equal.

LOWER COST AND NEED FOR BIOMATERIAL



National Institutes
of Health



17% CAGR
SINGLE-CELL
TECHNOLOGY
AND 3D
BIOPRINTING
MARKET
2027

12.9% CAGR
TISSUE
ENGINEERING
MARKET
2028

SEK 9.8
VALUE PER
SHARE
BASE SCENARIO

Innovative Products Lowering the Cost for Drug Development and Research

Drug development and medical studies that are made on biomaterial, such as cells or tissues, often need an excess of material to enable relevant testing and results. This approach is problematic since biomaterial is expensive and found in limited quantities, making drug development a costly and resource-intensive process. Fluicell offers an innovative technology platform solution as well as products and services that enables studies on single- or multi-cell level biorelevant models. In essence, Fluicell's solutions allow testing with fewer cells and less costly testing substance, which leads to more flexibility, lower cost and need of biological material for the users and provides the ability to generate high value experimented data in ways previously not possible.

Several Global Customers and Collaborations

Fluicell has over 30 high-quality names as customers within research, academia and the pharma industry that has expressed great interest in the Company's products and technology. Examples of partners that Fluicell works with include National Institute of Health (NIH), Oregon Health & Science University, Roche, Orion Pharma and Novartis. Additionally, Fluicell has several R&D collaborations ongoing, one of them being an EU-funded grant called BIRDIE as a part of FETOPEN Horizon 2020. Overall, we see a strong continued demand from Fluicell's customers going forward, as well as a strong demand of R&D collaborations based on Fluicell's unique know-how, which are major drivers for expanding future development and sales growth for the Company.

Operating in Vast Markets with Double-Digit Growth

The global markets for both single-cell analysis and 3D bioprinting were estimated to be worth USD 3.7bn and USD 1.9bn respectively in 2022. Combined, these two markets are projected to reach USD 12.5bn in 2027 which represent a CAGR of 17% during the forecast period. The growth in the single-cell analysis market is primarily driven by technological advancement in single-cell analysis products. Furthermore, the integration of microfluidics in single-cell analysis and the high growth potential of single-cell sequencing are key areas of opportunity. Regarding the 3D bioprinting market, key growth drivers include a growing demand for organ/tissue transplantation, cost-efficiency of 3D bioprinting and increased funding as well as investments for research. Additionally, Fluicell intends to enter the regenerative medicine market with a focus on tissue engineering. The tissue engineering market was estimated to USD 15.9bn in 2022 and is forecasted to reach USD 33.5bn by 2028, corresponding to a CAGR of 12.9%. The segment growth will primarily be driven by technological advancements in tissue engineering, an increased number of clinical trials and a rise in R&D funding. As a leader in single-cell analysis and 3D bioprinting, Fluicell is expected benefit from market tailwinds to capitalize on the demand for advanced research instruments as well as the demand for high-precision tissue-engineering solutions and know-how.

Summary of Forecast and Valuation in a Base Scenario

Fluicell's target markets display double-digit growth, and the Company is in a favorable position to solidify its sales pipeline and expand the order backlog. Based on a target multiple of 5.5x applied on estimated sales of SEK 68.6m in 2026 and a discount rate of 12%, which accounts for the time specific risk of events that are far away and have not yet occurred, this yields an implied value per share of SEK 9.8 in a Base scenario.



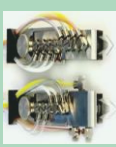


Risks to Monitor

Fluicell will likely need further external capital to finance operations before breaking even, where we estimate financing is secured through a combination of additional shareholder capital, "soft money" (e.g., via grants or other R&D funding), and sales. Fluicell is operating in a competitive industry where it is critical to have access to capital. Therefore, it is important to monitor the Company's burn rate to assess the need for financing through potential share issues in order to avoid shareholder dilution. Given the current cash position of SEK 15m, estimated net proceeds of SEK 14.8 from TO4 warrants in June 2023, and an estimated burn rate of SEK -2.0m, Fluicell is estimated to be financed until the end of H1-24, all else equal.

Fluicell was founded in 2012 as a spin-off from Chalmers University in Sweden. The Company specialises in microfluidics, single-cell biology, and high resolution bioprinting. Furthermore, Fluicell holds a strong patent position with five different patent families (see Appendix). The company currently has five products on the market, excluding Dynascout which is regarded as a low-cost single use version of Dynaflow Resolve that uses the same microfluidic technology as the full platform.

The Product Portfolio Consists of the Pinnacle Bioprinter Biopixlar as well as a Series of Products for Biological and Pharmacological Research.

A Selection of Fluicell's Main Product Offerings

Biopixlar®AER	Biopixlar®	Biopen®System	Biozone 6®	Dynaflow®Resolve
				
First 3D single-cell bioprinting platform that fits inside a standard laminar flow hood List price: ~ EUR 69k	3D single-cell bioprinting platform for building detailed biological tissues List price: ~ EUR 110k	System for targeting single cells without contaminating surrounding environment List price: ~ EUR 25k	Easy to use platform enabling drug testing in native cell environment List price: ~ EUR 40k	10n channel screening platform for single-cell patch clamp recording (in-licensed product) List price: ~ EUR 75k

Source: Company

Business Model

Fluicell generates revenue through multiple income streams such as:

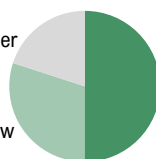
- **Product sales:** Fluicell may generate revenue by directly selling the Company's main offered products. Moreover, Fluicell has introduced leasing agreements to increase flexibility for customers. Fluicell also has a broad network of distributors all over the world selling their products, mainly targeting the larger markets of U.S, Europe, Asia and Australia.
- **Recurring revenue from consumables, CRO & support service:** A customer that has invested in one of Fluicell's products will create an opportunity to generate additional recurring sales via consumables and support service which creates a more predictable and recurring revenue. For example, there are leasing agreements for consumables related to Dynaflow Resolve. Genentech, Orion and Gedeon Richter are recurring customers that Fluicell has ongoing leasing agreements with.
- **R&D collaborations:** Fluicell may receive different types of grants by participating globally in collaboration projects with research institutes, universities as well as governments that are interested in the Company's technology and want to do exploratory studies addressing unmet clinical needs. Additionally, revenue may be generated from research agreements and development agreements.

Biopixlar is Generating the Majority of Fluicell's Revenue and the Academic Sector is the Largest Customer

Fluicell's product and customer revenue split

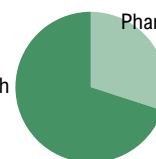
Biopen, Biozone 6 and other
20%

Dynaflow
30%



Biopixlar
50%

Universities, Research
Institutes
70%



Pharma Companies
30%

Source: Company

Historical Review and Strategic Outlook

Fluicell aims to grow organically by launching new products/services, in-licensing additional products or out-licensing the Company's products, expand IP portfolio, and entering new markets. Prior to the COVID-19 pandemic, Fluicell had a strong sales momentum, managing to grow the revenue by 103% in 2019 and 86% in 2020. However, the operating cost base has also grown significantly, although not only because of increasing sales, but also due to investments in the maturing tissue therapeutics program. The fiscal year of 2021 showed a decline in revenue for the first time since 2017. However, with countries reopening, we believe 2021 was a temporary setback for Fluicell, and that the Company will be able to continue to grow their revenues rapidly at high double-digit rates, driven by strong educated customer demand and strong market trends. After downward revenue pressure in 2021, the scenario was improved in 2022, where the total revenue, including other operating income, increased with 77%, where the revenue related to product sales increased with 25%, which suggests that Fluicell is getting back on track after temporary pandemic setbacks.

FLUICELL AIMS TO GROW ORGANICALLY

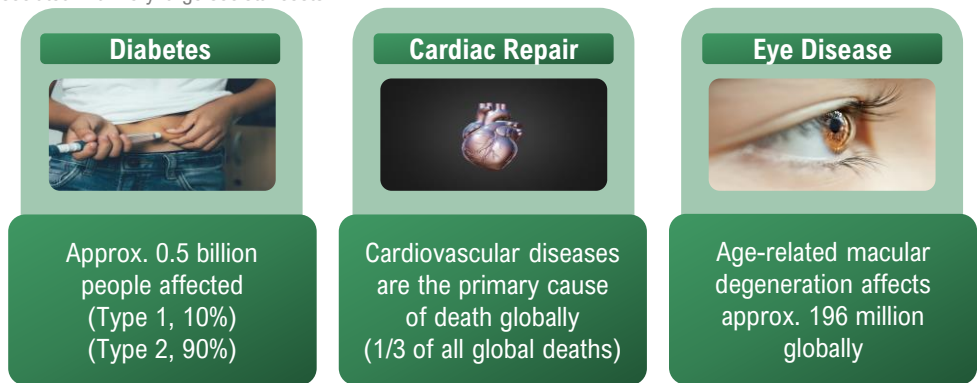


Business Area – Tissue-Based Therapeutics within Regenerative Medicine

Fluicell, as a company, started empowering scientists in single-cell biology and progressed to delivering 3D bioprinting solutions. Fluicell has undergone strategic transformations over the years, and as a result, the Company has identified synergistic opportunities in the field of regenerative medicine (RM) where the Company focus on the development of tissue engineered products (TEPs). The objective is to offer not only single-cell and bioprinting tool-based solutions, but also therapeutic solutions for treating diseases with large unmet medical needs that cause irreversible cell damage and where existing solutions may not be sufficient. The development efforts will be focused on diabetes, cardiac repair, and eye diseases, where the Company see great opportunities to address these unmet medical needs. Ultimately, Fluicell aims to advance data and refine the development efforts in regenerative medicine with the goal of delivering pre-clinical development data in at least one of the disease areas related to diabetes (Type 1) or cardiovascular disease during 2024. Additionally, Fluicell aims to initiate a partnership with a pharmaceutical company for further development of at least one of the two tissue-based therapeutics programs. Fluicell expects a watershed moment after the first few partnerships leveraging the Company's solutions.

Fluicell's Therapeutic Areas of Focus with Large Unmet Medical Needs.

Strong impact on human health associated with very large societal costs



Source: Company, Analyst Group (illustration)

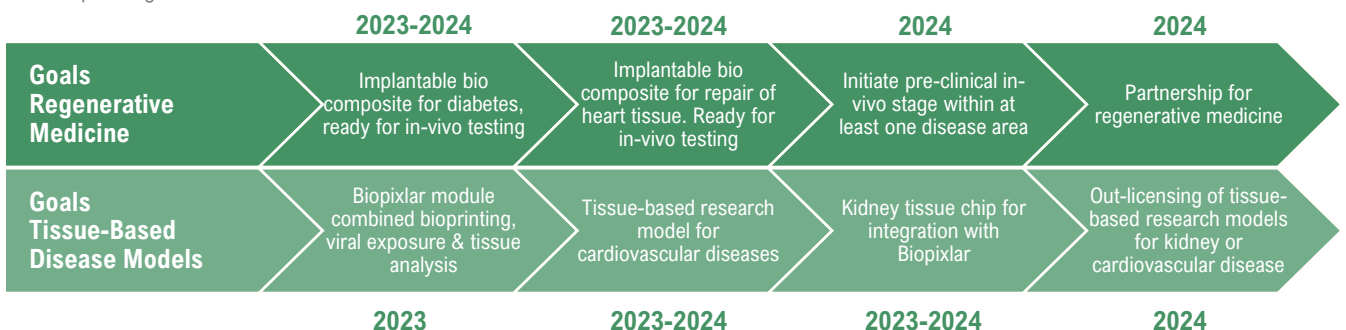
Business Area – Tissue-Based Disease Models for Drug Development

OPPORTUNITIES TO GENERATE INCOME THROUGH LICENSING DEALS

In the business area of biorelevant tissue-based disease models for drug development related to first-in-human trial applications, Fluicell aims to expanding maturing existing research projects, developing human disease models with the final goal to sign a licensing deal with a pharmaceutical company for at least one research model during 2024. Fluicell is currently involved in two projects for two areas of human in-vitro disease models. One of the projects include the EU BIRDIE collaboration related to kidney disease models which started in 2020 and will generate SEK 5.2m over time until 2024. Fluicell's other tissue-based disease model project was initiated in September 2021 with Swiss pharmaceutical giant Roche in a pilot project related to cardiovascular disease models. This pilot project yielded promising preliminary results, where the two parties now have extended the project to further investigate optimization of bioprinted heart tissues for drug safety.

Several Strong Triggers Ahead with Potential for Licensing and Partnerships.

Roadmap for regenerative medicine and tissue-based disease models



Source: Company, Analyst Group (illustration)

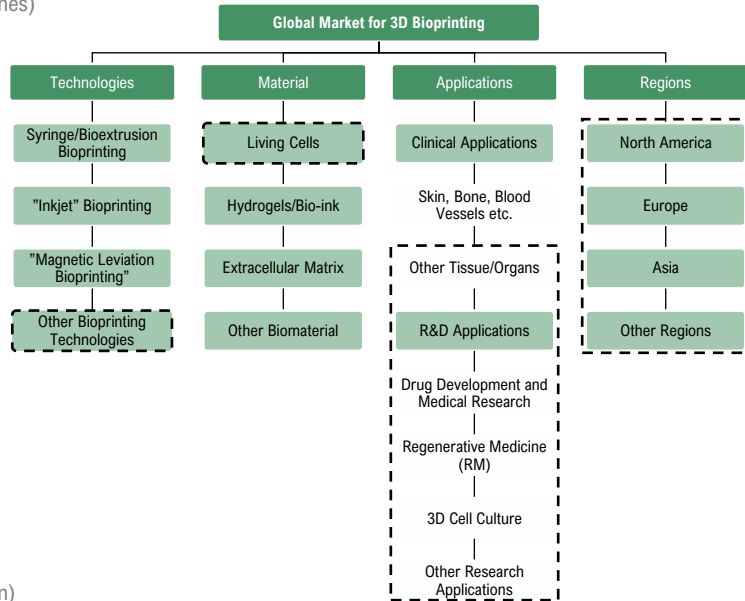


Fluicell is Addressing Rapidly Growing Markets with Multiple Key Drivers

Fluicell is currently operating within the markets for both single-cell technology and 3D bioprinting where it is one of the leading companies within the niche segment of high-end microfluidics-based printers. The relevant main and sub-segments that Fluicell addresses in the 3D bioprinting market can be seen in the figure below where the dashed lines are most relevant for Biopixlar.

Segmentation of the Global Market for the 3D Bioprinting Market with Main Segments (light green) and Sub-Segments (white).

Biopixlar's most relevant markets (dashed lines)



Source: Company, Analyst Group (illustration)

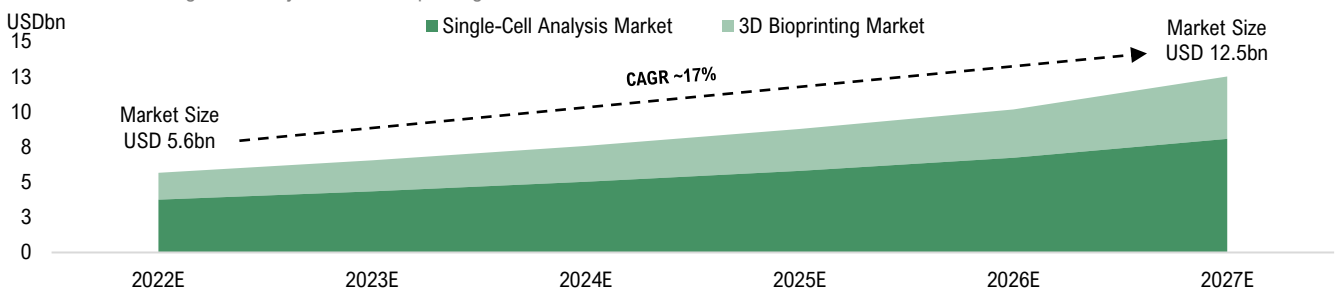
The global markets for single-cell analysis and 3D bioprinting were estimated to be worth USD 3.7bn and USD 1.9bn respectively in year 2022. Combined, these two markets are projected to reach USD 12.5bn in year 2027 which represent a CAGR of 17.4% during the forecast period. The growth in the single-cell analysis market is primarily driven by technological advancement in single-cell analysis products. Furthermore, the integration of microfluidics in single-cell analysis coupled with single-cell sequencing represent a key area of opportunity, supported by continued interest for understanding cell function extended to genes/proteins.

USD 12.5bn
MARKET FOR
SINGLE-CELL
ANALYSIS
 +
3D BIOPRINTING
2027

Regarding the 3D bioprinting market, key growth drivers include a growing demand for organ/tissue transplantation, overcoming bottlenecks related to cost-efficiency of 3D bioprinting, and increased national funding as well as investments. These underlying structural trends are beneficial to Fluicell as they have a unique type of microfluidic printer with high resolution and high precision capabilities without using bio-ink or hydrogels. Additionally, microfluidic bioprinting has been quoted by researchers to *“revolutionize the low-cost bioprinters of the future”* in a recent scientific review article from the Society for Laboratory Automation and Screening (SLAS)¹.

The Global Markets for Single-Cell Analysis and 3D Bioprinting are Estimated to Grow 17% Annually to USD 12.5b in 2027.

Global market for single-cell analysis and 3D bioprinting 2022E-2027E



Source: Polaris Market Research (single-cell analysis market estimates), Grand View Research (3D bioprinting market estimates), Analyst Group (illustration)

1. Tong A, Pham QL, Abatemarco P, et al. Review of Low-Cost 3D Bioprinters: State of the Market and Observed Future Trends. SLAS TECHNOLOGY: Translating Life Sciences Innovation. 2021;26(4):333-366.

Market Challenges and Restraint Factors

**LACK OF HIGH
PRECISION AND
HIGH
RESOLUTION
BIOPRINTERS**

Lack of automation, throughput and integration of industrial workflows in the 3D bioprinting process are some of the challenges that need to be addressed in order to gain a greater acceptance of innovative bioprinting products. Moreover, there is a lack of sophisticated high-end bioprinters that are able to position cells with high precision in order to create complex cell structures with meaningful histological detail and composition. Not to mention, sophisticated instruments need highly skilled people with know-how in order to sustain development and provide proper education to the end users. Lastly, there are ethical considerations related to the application of bioprinted products and the original biomaterial (e.g., stem cells from fetuses) which are expected to mitigate market acceptance for new innovations. Nonetheless, since the main features of Fluicell's products are high precision and high resolution, the market challenges present remarkable opportunity for the Company to add value where the market is currently struggling.

**SINGLE-CELL
ANALYSIS TOOLS
COMES WITH
HIGH COSTS**





The main restraint factor for the single-cell analysis market growth is the high cost of research instruments due to the need to maintain high-quality standards as well as complying with rigorous regulatory requirements. This makes it difficult for research institutions to afford the instruments. However, as adoption and awareness increases, so will economies of scale which will drive down prices over the long term. Since Fluicell's single-cell technology products enables targeting of single or multiple cells with high precision and low compound consumption with no tip breakage or contamination, they are well positioned to address the main restraint factor of single-cell analysis.

Competitive Positioning in the 3D Bioprinting Landscape

Due to tremendous interest to create replacement tissues, the accompanying growth in the 3D Bioprinting market has attracted numerous manufacturers offering different types of low-cost bioprinter models. The machines may vary in sophistication, depending on the technology, building volume, enclosure, sterile environment etc. which creates a lot of options when choosing the right type. According to Tong et al., there are three dominant technologies in the low-cost bioprinter niche – microextrusion, droplet-based/inkjet and light-based/crosslinking. Additionally, on the high-end spectrum are the microfluidics-based bioprinters offered by Fluicell and Aspect Biosystems. Biopixlar AER is a major contributing factor to Fluicell receiving one innovation award and being nominated to another two separate 3D printing industry news outlets which confirms the Company's position as a market innovator within the 3D bioprinting sector. In the matrix below, we have compiled some of Fluicell's closest competitors in regards to 3D Bioprinting technology, and also considering whether the comparable company has an active tissue therapeutic program ongoing to make the comparison as fair as possible.

3D Bioprinting Competitive Landscape and Disease Areas where the Companies have ongoing Tissue Therapeutic Programs.

Selected peers of Fluicell with similar portfolio and business model

Company	Bioprinter Name	Technology	Tissue Therapeutic Programs					
			Diabetes	Cardiac Repair	Eye Disease	Liver Disease	Skin Disease	Cartilage Repair
 fluicell®	Biopixlar	Microfluidic hydrodynamic confined flow - with robot arm	✓	✓	✓	✗	✗	✗
 Aspect biosystems	RX1	Microfluidic Extrusion	✓	✗	✗	✓	✗	✗
 poietis make tissues real	NGB-R	Pneumatic extrusion, inkjet with robot arm and modular heads	✗	✓	✗	✗	✓	✓
 INVENTIA LIFE SCIENCE	RASTRUM	Inkjet - Solenoid Valve	✗	✗	✗	✗	✓	✗

Source: Tong et al. Review of Low-Cost 3D Bioprinters: State of the Market and Observed Future Trends. Company Websites.



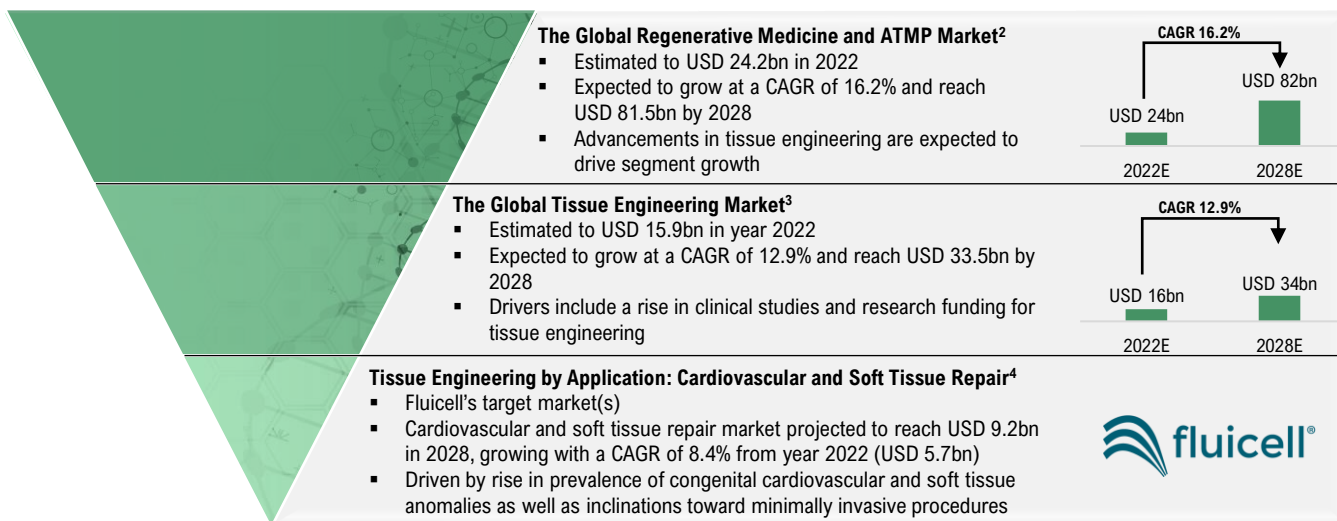
The Global Regenerative Medicine and ATMP Market

16.2% CAGR
ESTIMATED TO
REACH
USD 81.5bn
BY 2028

Regenerative medicine (RM) is an emerging field that involves using cells, tissues, or genetic material to treat diseases or restore lost functions of the body where the aim is to repair, replace or regenerate the damaged tissue or organ(s). Based on the classification of the U.S National Institute of Health (NIH), cell therapy, gene therapy, biomaterials and tissue engineering are all included in the definition of regenerative medicine, sometimes referred to as advanced therapy medicinal products (ATMPs). Previously incurable chronic diseases such as diabetes or Parkinson’s disease are now potentially possible to cure with the development and advancements in regenerative medicine. It was estimated that approximately 1,028 clinical trials related to regenerative medicine were ongoing globally according to the Alliance of Regenerative Medicine, and approximately USD 13.3bn was invested into regenerative medicine research & development in 2018. The global regenerative medicine market size was estimated to USD 24.2bn in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 16.2%, reaching USD 81.5bn by 2028. Key growth drivers include the ageing population, emergence of gene therapy, advancements in tissue engineering technology as well as high economic impact and overall technological advances in regenerative medicine.

The Advancements in Tissue Engineering Technology are expected to Boost Regenerative Medicine Market Growth.

Global market for regenerative medicine and sub-segments



Source: Precedence Research, Imarc Group, Market Research Guru, Analyst Group (illustration)

The Global Tissue Engineering Market

12.9% CAGR
ESTIMATED TO
REACH
USD 33.5bn
BY 2028

Tissue engineering combines various disciplines such as biology, chemistry, material science etc. and aims to regenerate whole organs or tissue by utilizing, for example, artificial organs, biomaterials and/or cell therapies that leverage donor cells. The tissue engineering market was estimated to USD 15.9bn in year 2022 and is forecasted to reach USD 33.5bn by 2028, corresponding to a CAGR of 12.9%. The growth will primarily be driven by technological advancements in tissue engineering, an increased number of clinical trials and a rise in R&D funding. The regenerative medicine market has been dominated by cell/gene therapies, but with few approved tissue engineered products until now, which indicates that it is still an untapped area with substantial growth potential ahead.

The Cardiovascular and Soft Tissue Repair Market

8.4% CAGR
ESTIMATED TO
REACH
USD 9.2bn
BY 2028

By creating bioprinted tissues that, with detailed cell composition, enable the restoration of the function of damaged organs, Fluicell is targeting the cardiovascular and soft tissue repair market which had an estimated value of USD 5.7bn in 2022 and is expected to grow at a CAGR of 8.4% until 2028, reaching a market size of USD 9.2bn. The cardiovascular and soft tissue repair market will be driven by a rise in prevalence of congenital cardiovascular and soft tissue anomalies as well as an inclination toward minimally invasive procedures.

2. <https://www.precedenceresearch.com/regenerative-medicine-market>
 3. <https://www.imarcgroup.com/tissue-engineering-market>
 4. <https://marketresearchguru.com/global-cardiovascular-and-soft-tissue-repair-patches-industry-research-report-2023-competitive-landscape-market-22382874>

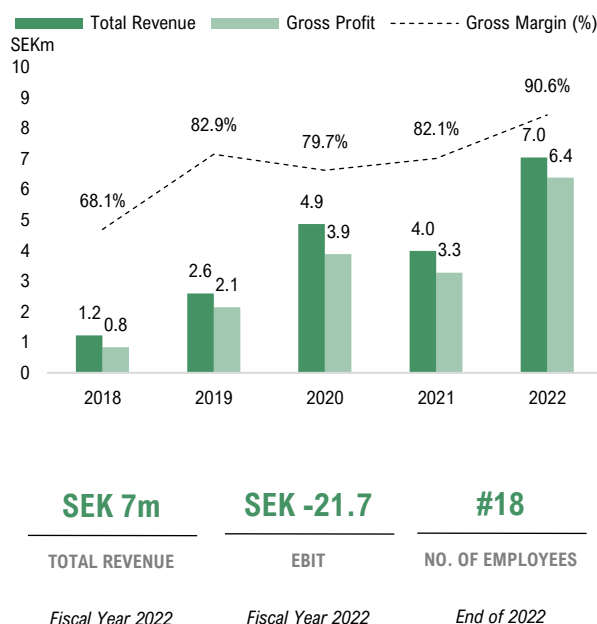
Fluicell's business strategy is to provide their products and services directly through an in-house sales force, primarily to research institutes, universities, and the pharma/biotech industry within Europe. In other geographic regions, the products and services may be sold primarily through distributors. Below is a summary of the operating history.

Fluicell has been Able to Grow its Revenues Rapidly Over the Years while Losing Some Momentum in 2021.

Historical financials for the last five years

Income Statement (SEK'000)	2018	2019	2020	2021	2022
Net Revenue	1,226	2,488	4,635	2,602	3,251
Other Operating Income	0	103	235	1,388	3,791
Total Revenue	1,226	2,591	4,870	3,990	7,042
COGS	-391	-443	-988	-715	-663
Gross Profit	835	2,148	3,882	3,275	6,379
Gross Margin	68.1%	82.9%	79.7%	82.1%	90.6%
Other External Costs	-7,431	-8,320	-7,134	-9,942	-10,517
Staff Costs	-7,854	-11,989	-13,169	-14,440	-16,868
Depreciation and Amortization	-326	-522	-605	-588	-720
Other Operating Costs	-2	0	0	0	0
EBIT	-14,778	-18,683	-17,026	-21,695	-21,726
EBIT margin	neg	neg	neg	neg	neg
Interest Income	80	48	0	29	358
Interest Expenses	-2	0	-564	-26	-238
EBT	-14,700	-18,635	-17,590	-21,692	-21,606
Taxes	0	0	0	0	0
Net Income	-14,700	-18,635	-17,590	-21,692	-21,606
Net Income Margin	neg	neg	neg	neg	neg

Source: Company



SEK 7m

TOTAL REVENUE

Fiscal Year 2022

SEK -21.7

EBIT

Fiscal Year 2022

#18

NO. OF EMPLOYEES

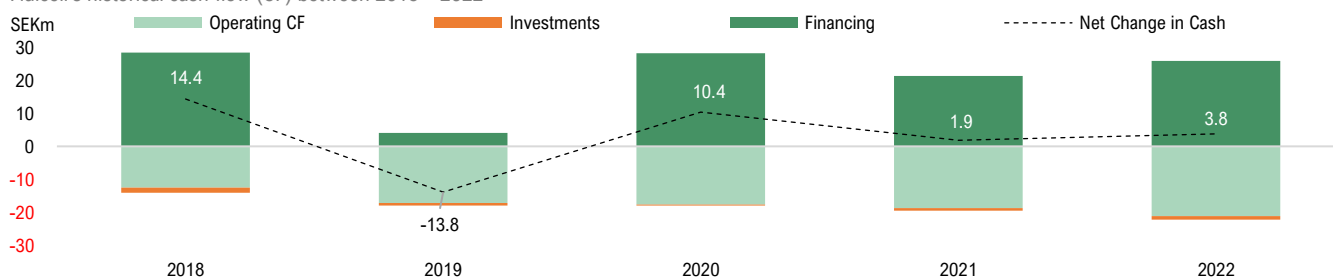
End of 2022

Operational and investment needs

As Fluicell is spending in new areas related to clinical and research activities to build assets, create growth for long-term deliverables, and gain market share, the operating cost base is currently greater than the total revenue. Given that Fluicell can maintain the momentum with the sales activities, as well as leveraging the company's IP portfolio to actualize selected licensing deals, the Company is estimated to break-even in year 2025. Thus, it is not unlikely that Fluicell will need further external capital to finance the operations before breaking even, where we estimate that financing is obtained through a combination of additional shareholder capital, "soft money" (e.g., R&D funding), and sales. In terms of investments, Analyst Group estimates that capital expenditures (CAPEX) will remain relatively stable since the Company have a broad and strong IP portfolio in place that does not require substantial additional investments upfront over the forecast period.

Fluicell has Historically Relied on Equity Financing by Issuing New Shares.

Fluicell's historical cash flow (CF) between 2018 – 2022



Source: Company, Analyst Group (illustration)

Revenue Forecast 2023-2026

The following forecast is based on existing products (Biopixlar AER, Biopixlar, Biopen, Biozone 6 and Dynaflo Resolve). Moreover, the forecast includes other operating income SEK 1.2m annually until 2024 which is R&D-related income from the EU funded grant called BIRDIE as a part of the FETOPEN Horizon 2020 project.

**RAPID SALES
GROWTH
EXPECTED**

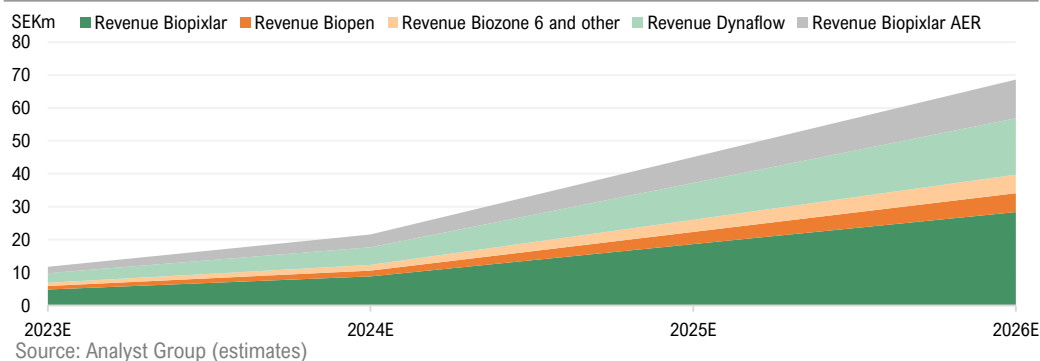
The potential customer segments of Fluicell consist of over 10,000 universities involved in medical research and over 10,000 companies involved in drug development. Fluicell's revenues are mainly derived from product sales which will provide the basis for the revenue forecast. To derive a revenue forecast in a Base scenario, assumptions have been made about the volumes of product sales that Fluicell can reach with its current sales force and distributor network, as well as possible price levels for the Company's different products. It is important to note that the prices are estimated average list prices and not the actual sales prices which might fluctuate between different customers and geographies. In Analyst Group's forecast, it is estimated that the products and services will have a constant price level during the forecast period. Given that Fluicell can accelerate their sales related activities, room to grow the revenues substantially are expected.

Suggested selling pricing per product to end customer:

Biopixlar AER	EUR ~69k
Biopixlar	EUR ~110k
Biopen	EUR ~25k
Biozone 6 and other	EUR ~40k
Dynaflow Resolve	EUR ~75k

Next, it will be estimated that Biopixlar and Biopixlar AER is going to generate the lion share of the revenue (50%), followed by Dynaflo (25%), and the that the rest of the revenue will be generated by Biopen, Biozone 6 as well as other income streams such as support service and consumables (20%). Based on the price assumptions, estimated product revenue mix, and estimated sales volume implemented in the model, it generates the following potential revenue forecast.

Forecasted revenue per product (SEK'000)	2023E	2024E	2025E	2026E
Biopixlar AER	1,960	3,920	7,840	11,760
Biopixlar	4,900	8,820	18,620	28,420
Biopen	980	1,764	3,724	5,684
Biozone 6 and other	980	1,764	3,724	5,684
Dynaflow Resolve	2,940	5,292	11,172	17,052
Total Net Revenue	11,760	21,560	45,080	68,600
Growth YOY	262%	83%	109%	52%



Cost of Goods Sold (COGS)

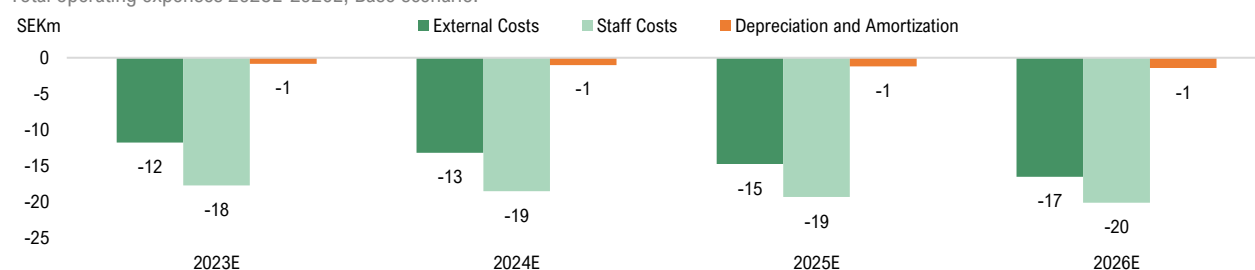
Fluicell's business model is based on selling high precision/resolution instruments for single-cell analysis and 3D bioprinting. As a result, COGS are derived mostly from electronic and hardware components required to assemble the products, although some of the products utilize software as well. Being a hardware company, it is remarkable that Fluicell has achieved a gross margin of approximately 65% in the past year, adjusted for other operating income. The high gross margin indicates that Fluicell has a competitive advantage, for example the customers may have a high willingness-to-pay for their products, and/or the production costs are low in relation to what Fluicell can charge a customer. Not to forget, the strong IP portfolio prevents competitors to produce or sell equivalent products, which allows Fluicell to maintain high margins during the exclusivity period. Furthermore, the Company has not yet reached a sales and production volume where they have been able to draw benefits from economies of scale, which suggests there might be room for further margin expansion. Nonetheless, Analyst Group estimates that as Fluicell manages to grow its customer base, with the awareness for bioprinting increasing, and the projects in regenerative medicine progressing, they will be able to draw the benefits of higher scale in the production which will push down the production cost and maintain the high gross margin. An average gross margin of 80% is estimated during the forecast period in a Base scenario.

Operating Expenses

In order for Fluicell to execute the Company's commercial strategy and grow its revenue, it is expected that they will continue to establish relevant scientific and commercial partnerships. The end customers are universities, research institutes, pharma companies and contract research organizations (CROs) in the life science industry. Due to the strict regulations in the life science industry, barriers to entry are often high, and there is an inherent inertia that affects everything from the sales cycles to negotiations and closing deals. Nonetheless, Analyst Group estimates that going forward, the operating expenses will increase, driven by an increase in personnel related to sales & marketing as well as external costs related to research projects within regenerative medicine and tissue-based disease model development. As the operating expenses grow, albeit at a slower pace than previously, we estimate that the increased selling volumes, licensing agreements and rapidly growing revenues will result in a positive operating margin at the end of the forecast period.

Most of the Operating Expenses are Expected to Consist of the Staffing Costs.

Total operating expenses 2023E-2026E, Base scenario.

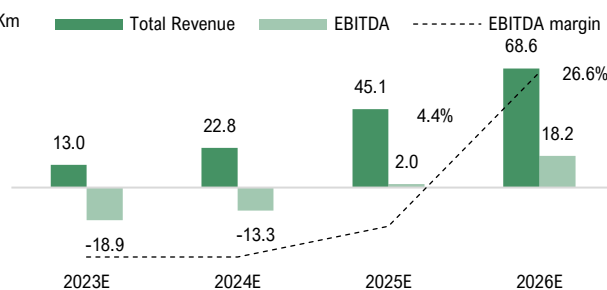


Source: Analyst Group (estimates)

A Summary of Analyst Group's Financial Forecast of Fluicell.

Financial forecast 2023E-2026E, Base scenario

Base scenario (SEKm)	2023E	2024E	2025E	2026E	SEKm
Net Revenue	11.8	21.6	45.1	68.6	80
Total Revenue	13.0	22.8	45.1	68.6	60
COGS	-2.4	-4.3	-9.0	-13.7	40
Gross Profit	10.6	18.4	36.1	54.9	20
Gross Margin	81.9%	81.1%	80.0%	80.0%	0
Operating Expenses	-29.5	-31.7	-34.1	-36.7	-20
EBITDA	-18.9	-13.3	2.0	18.2	-40
EBITDA Margin	neg	neg	4.4%	26.6%	



Source: Analyst Group (estimates)



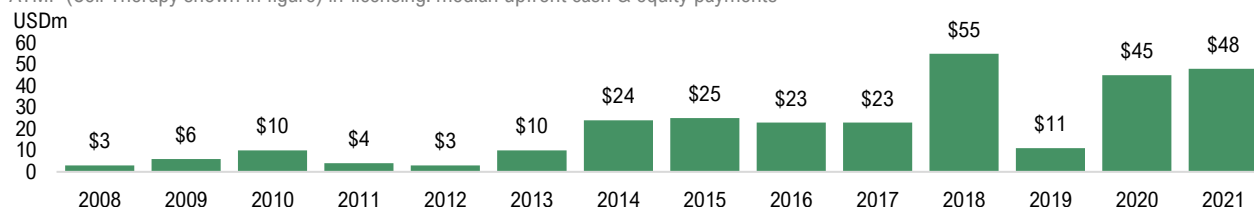
Deals and Funding in the Life Science Industry

BIOPHARMA INVESTMENTS REACHED USD 39bn in 2021

This section aims to illustrate the potential of Fluicell's regenerative medicine segment by highlighting deals and transactions made in the past, which may give hints of what a future deal for Fluicell is expected to look like. According to an extensive industry report from J.P Morgan Healthcare⁵, the life science industry experienced a surge in dealmaking where substantial capital inflows occurred in 2021, driven by the increased interest in biopharma therapeutics and discovery platforms. For instance, biopharma venture investments reached USD 39bn in 2021, compared to USD 26bn in 2020. Another interesting note is that ATMPs attracted the largest amount of median upfront dollars, specifically for licensing agreements with big pharma. Over the last five years, there has been an upward trend for the number of deals being announced for ATMPs where they, in many cases, have been generating higher buyouts or licensing upfront payments than other therapeutic categories.

Cell and Gene Therapy Bring the Highest Median Upfront Payments in Licensing.

ATMP (Cell Therapy shown in figure) in-licensing: median upfront cash & equity payments



Source: DealForma.com database, Analyst Group (illustration)

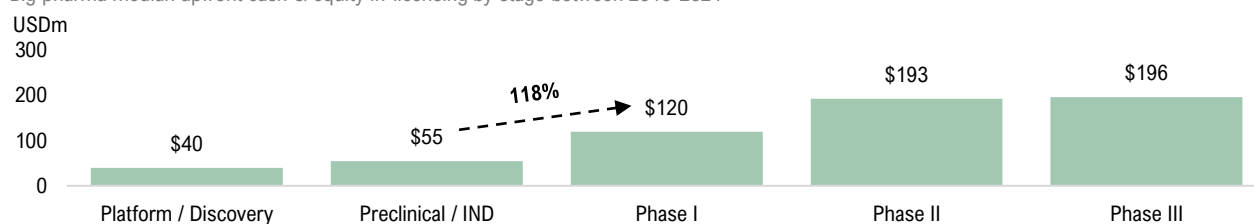
72% OF IN-LICENSING PARTNERSHIPS ARE FOR DISCOVERY PLATFORMS

Big Pharma is In-Licensing Earlier and Paying More Upfront

Another trend that is benefiting Fluicell is that big pharma has been going for in-licensing deals in earlier stages, for example, 72% of in-licensing partnerships signed into large-cap (USD 50bn+) are for discovery platforms. Big pharma has also displayed a willingness to pay more for in-licensing Phase I assets, where a 118% increase from preclinical stage deals to Phase I was observed between 2015-2021 according to data from the DealForma-database.

Phase I Assets have Brought in the Largest Jump in Upfront Cash and Equity Funding over the last Seven Years.

Big pharma median upfront cash & equity in-licensing by stage between 2015-2021



Source: DealForma.com database, Analyst Group (illustration)

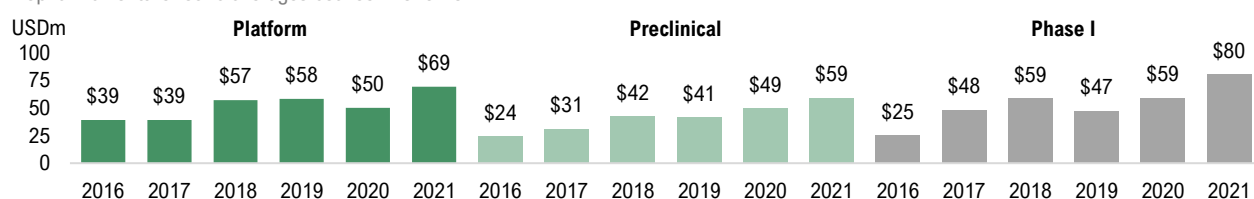
USD 68m AVERAGE VENTURE ROUND FOR PLATFORM & DISCOVERY

Average Transaction Spending in the Early Development Stages Seeing an Upward Trend

Since 2016, Phase I and earlier stage assets have attracted more and more capital where platform and discovery-stage companies are seeing an average round of USD 68m. Additionally, the year-over-year growth in pre-clinical stages amounted to an average of USD 59m while Phase I venture rounds averaged USD 80m.

Early-Stage Assets Showing an Upward Trend in terms of Venture Round Averages over the Last Six Years.

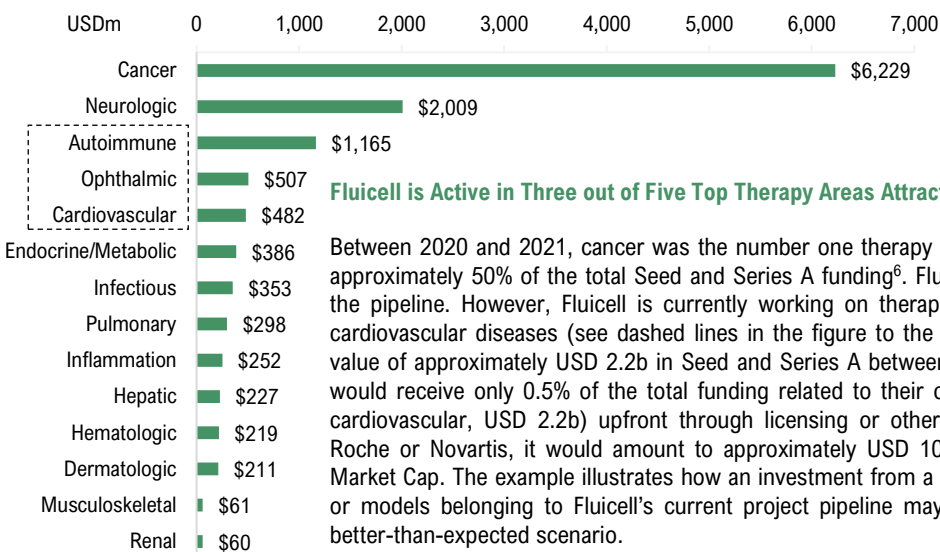
Biopharma venture round averages between 2016-2021



Source: DealForma.com database, Analyst Group (illustration)

5. Biopharma and Medtech Deals and Funding, 2022 Annual Outlook, J.P Morgan Chase & Co.

Deals and Funding in the Life Science Industry



Fluicell is Active in Three out of Five Top Therapy Areas Attracting Venture Funding

Between 2020 and 2021, cancer was the number one therapy area, attracting USD 6.2b which represents approximately 50% of the total Seed and Series A funding⁶. Fluicell does not have any cancer therapies in the pipeline. However, Fluicell is currently working on therapeutics within autoimmune, ophthalmic and cardiovascular diseases (see dashed lines in the figure to the left), which combined, amounted to a total value of approximately USD 2.2b in Seed and Series A between 2020 and 2021. As an example, if Fluicell would receive only 0.5% of the total funding related to their core focus areas (autoimmune, ophthalmic, cardiovascular, USD 2.2b) upfront through licensing or other deals with any of their big partners like, Roche or Novartis, it would amount to approximately USD 10m, which is essentially twice their current Market Cap. The example illustrates how an investment from a big partner interested in tissue therapeutics or models belonging to Fluicell's current project pipeline may create a substantial upside potential in a better-than-expected scenario.

Aspect Biosystems Enters Licensing Deal with Novo Nordisk to Develop Bioprinted Tissue Therapeutics

On the 12th of April 2023, it was announced that Aspect Biosystems ("Aspect"), a Canadian company focusing on bioprinted tissue therapeutics, entered an exclusive global licensing agreement with Novo Nordisk⁷. The deal provided Novo Nordisk with the exclusive world-wide license to use Aspect's bioprinting technology to develop up to four products for the treatment of diabetes and/or obesity. Under the terms of that agreement, Aspect is eligible to receive up to USD 650m in future development, regulatory, commercial and sales milestones payment per product, with USD 75m million upon signing. In addition, Aspect is eligible for tiered royalties on future product sales upon commercialization. However, the royalty range was not disclosed in the press release. The collaboration will initially focus on developing bioprinted tissue therapeutics designed to maintain normal blood glucose levels without the need for immunosuppression, which may represent a transformative treatment for people living with type 1 diabetes.

Aspect Received USD 75m Upfront, is Entitled to Up to USD 650m as well as Tiered Royalties.

Deal Structure between Aspect Biosystems and Novo Nordisk



Source: Aspect Biosystems Press Release

Bottom Line for Fluicell and Licensing Possibilities

Analyst Group believes that it is not unlikely that Fluicell could strike a similar deal as Aspect in the future, given that they have a history with Roche ever since the development of Biozone 6. Moreover, Fluicell announced on the 9th of September 2021 that an agreement with Roche was made regarding a research project involving Biopixlar and to investigate how the bioprinter can be used to create in-vitro cardiac tissues for pharmacological safety studies⁸. The project was initiated in September 2021 under the name "Bioprinting Cardiac Tissues for Drug Safety Assays" and the duration was estimated to be six months. Due to delays, the project ended in Q3-22, and Fluicell delivered on all milestones. In February 2023, Fluicell announced that the Company extended the collaboration with Roche. The extended project is going to span over ten months where the aim is to investigate optimization of bioprinted heart tissues for drug safety. The project will be divided into several milestones where the estimated completion date is December 2023. In the medium and long-term, we see that this project may create interesting opportunities for a potential out-licensing deal of the Company's IP portfolio.

6. Biopharma and Medtech Deals and Funding, 2022 Annual Outlook, J.P Morgan Chase & Co.

7. <https://www.aspectbiosystems.com/news-resources/novo-nordisk-partnership-to-develop-bioprinted-tissue-therapeutics-for-diabetes-and-obesity>

8. <https://fluicell.com/investor-relations/press-releases/press/?releaseID=053DCD35EA4C3227>



**ASPECT RAISED
USD20m
IN SERIES A
ROUND**

Precedent Transactions in the Market

Fluicell’s technology is highly differentiated, and therefore, it is difficult to find several direct competitors in regard to the technology platform and project portfolio offerings. Analyst Group has identified one company within Fluicell’s main markets, which is the previously mentioned company Aspect Biosystems.

Aspect Biosystems is a private Canadian biotechnology company that was spun-off in 2013 from the University of British Columbia in Vancouver. Aspect is applying microfluidic 3D bioprinting technology internally to develop advanced cell therapies and partnering with leading researchers and industry professionals globally to solve complex challenges in regenerative medicine. Aspect is not aiming to recreate complete organs from scratch, but rather they are aiming to replace specific cells of organs or regenerate tissue that has experienced a loss of function. Additionally, the company develops bioprinted cells for therapeutic delivery. Aspect currently conducts pre-clinical development programs in pancreatic and liver tissue as displayed in the figure below. In January 2020, Aspect announced that USD 20m was raised in a Series A round to expand their platform for 3D bioprinting of human tissue and advance multiple tissue therapeutic programs.

Since Aspect is a private company, the information about its valuation is scarce. Therefore, it can only be speculated how much the company is worth today. According to different sources, Aspects latest reported revenue was between USD 10-12m. Assuming the latest transaction of USD 20m corresponds to approx. 10% dilution of existing shareholders, which is estimated as a reasonable share of the company shareholders are willing to give away, this yields a post-money valuation of USD 190m and a P/S multiple of 15-18x.

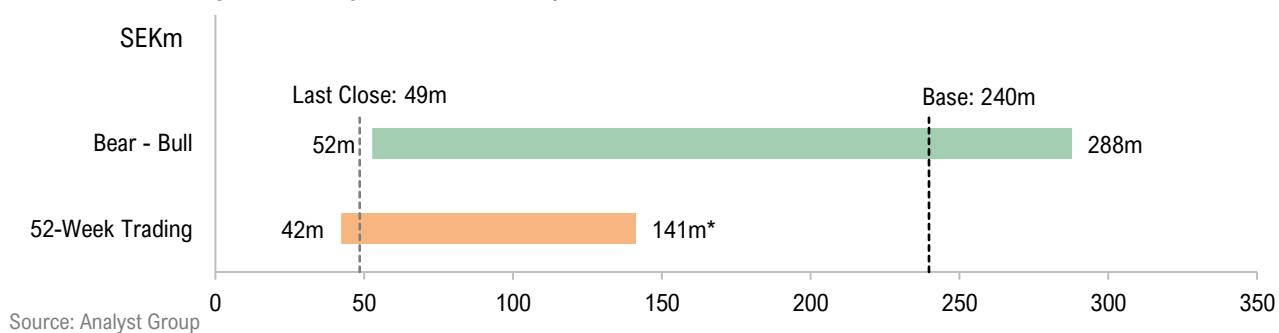
Aspect Biosystems Bioprinted Therapeutic Programs.

Currently in pre-clinical development

	Therapeutic Cells	Potential Applications	Fluicell Focus Area
Pancreatic tissue	Human beta cells	<ul style="list-style-type: none"> Type 1 diabetes 	✓
Liver tissue	Human liver cells	<ul style="list-style-type: none"> Acute liver failure Acute-on-chronic liver failure Liver-related genetic disorders 	✗
Discovery	Engineered cells	<ul style="list-style-type: none"> Ophthalmology Biologic delivery Cardiovascular 	✓

Source: Aspect Biosystems, Analyst Group (illustration)

Fluicell – Valuation Range and Summary in terms of Market Cap.



*Market Cap adjusted for share issues during the period

Valuation: Base Scenario

Since the forecast for Fluicell assumes high double-digit revenue growth going forward, the valuation is based on forecasting the sales and applying an appropriate P/S multiple on year 2026 revenues. P/S multiples for companies in early development or high-growth phase are generally high, due to initially low, or zero sales. Over time, as sales increases, multiples tend to normalize in line with the company reaching a larger market share and a higher degree of maturity. Given Fluicell's outstanding gross margin, strong patent portfolio to fend off competition, and a unique 3D bioprinting technology combined with venturing into the high potential market of regenerative medicine/ATMPs, we believe a P/S multiple of 5.5x is justified. Given a target multiple of P/S 5.5x on 2026's revenue of SEK 68.6m, this corresponds to a Market Cap of SEK 377m. If Fluicell can grow in line with the expectations, this will, rather early, result in rapidly increasing sales, which would thus be considered as proof that the Company has both an attractive product portfolio and the ability to capture market share. Moreover, if any of the regenerative medicine or disease model prototypes would show promising results and materialize in the form of a licensing deal with a big pharma company, a substantial upside is to be expected. Although it is difficult to quantify a deal precisely, the total value from such a deal is estimated to potentially exceed the total amount of our forecasted revenue, based on the information from similar deals. Analyst Group assumes a discount rate of 12% for Fluicell, which based on a company value of SEK 377m in 2026, result in an implied value per share of SEK 9.8 and a Market Cap of SEK 240m as of today in a Base scenario.

SEK 9.8
VALUE PER
SHARE
BASE SCENARIO

Bull Scenario

The following are potential value drivers in a Bull scenario:

- Fluicell delivers on their set agenda to ramp up the sales development and raise awareness for their products faster than expected.
- Fluicell succeeds in establishing a broader network of partnerships, which contributes to a faster market sales growth larger market share.
- The cash position is strengthened, but additional capital is required before positive cash flows can be achieved. Given a good business development, it is estimated that fundraising will occur at higher valuations, which reduces the dilution effect and enables a better return for investors.

Given a discount rate of 12% and a target multiple of P/S 5.5x on year 2026 estimated sales of SEK 82.3m in a Bull scenario, this yields a present value per share of SEK 11.8⁶.

Bear Scenario

The following are potential factors in a Bear scenario:

- Given the rapid technology development in Fluicell's target markets and high degree of innovation, it might take longer than expected to raise awareness and reach a critical level of adoption among key opinion leaders, which will result in slower growth.
- Delayed revenues resulting in an extended period of negative cash flows, which means that the Company's need for external capital increases.
- In the event of a "worse-than-expected" development, it is conceivable that capital raises will need to be conducted with a higher valuation discount, and thus may put a downward pressure on the share price.

Based on the financial estimates of such a scenario, a target multiple of P/S 1.5x on year 2026 estimated sales of SEK 54.9m and a discount rate of 12%, this yields a present value per share of SEK 2.1 in a Bear scenario⁶.

⁶See Appendix page 23 for forecasts made in the Bull and Bear scenarios, respectively.



The report for the first quarter of 2023 was recently presented. Could you give a summary of Fluicell's development during the period, and how it sets the stage for the rest of year 2023?

Fluicell's development activities follow the goals for the period 2022-2024, set in the prospectus that we published in connection to the right issue conducted in 2022. The goals represent important milestones in the growth of the company, and we are working determinedly to reach them. As of today, several of the goals have already been fulfilled or are well on track to be fulfilled during this year.

During Q1, we have made advancements in our product and technology development goals by launching a new version of Dynaflo together with Dynascout, we have started a collaboration with ConScience to deliver microfluidic chips to external customers and we are finalizing our collaboration with IonOptix. We have met important milestones in the development of our Type 1 diabetes therapeutics program. Also, we have signed a new research agreement with Roche with the goal to print heart tissue that can be used to evaluate the safety of new drug candidates in vitro and to integrate the models into established workflows.

The Birdie project is also on track regarding the development of physiologically relevant kidney models that combines bioprinted renal tissues and organ-on-chip technology.

Finally, we have grown the revenue in a positive way which is hopeful for the outcome of the rest of the year. We continue to develop the sales strategy and set new applications for Biopixlar in order to increase customer segments. We have made several important recruitments which will contribute to reinforce the team. The overall summary would be that Fluicell is advancing in the right direction in each area, and I would like to thank the team for their dedication and continued efforts.

You recently launched a new updated version of your ion channel screening platform Dynaflo Resolve and a lighter version called Dynascout. How large is the market for these products according to your estimations, which customer segments are the products aimed at, and how do they fit into your overall strategy of growing 100% per annum?

The new updated version of Dynaflo Resolve and the Dynascout were launched on March 23rd, 2023. Dynaflo is a platform for ion channel screening that makes it possible to study drug effects with high precision and detail with low consumption of scarce material. Dynaflo is an instrument which is mostly sold to pharmaceutical companies for usage in the early drug development. The market which we are targeting with Dynaflo is multifaced and it can be challenging to put a unique number to it. Part of it would be the manual patch clamp market with estimation at around USD 350M. This seems small in comparison to some of the other markets which we are targeting. However, Dynaflo is a very reliable instrument with an interesting after-sale market potential through the leasing agreements which we sign for the consumables. The Dynascout is a mini version of the Dynaflo facilitating demonstration to increase the number of installed instruments and thus increase our after-sales potential.

Fluicell reached important milestones in the in-vitro development of the tissue therapeutic program for treatment of diabetes type I. Could you tell us more about this project and what you expect to achieve going forward?

Type 1 diabetes is a life-long autoimmune disease that results in the destruction of the insulin-producing beta cells of the pancreas, which usually leads to absolute insulin deficiency. This disease is affecting a growing number of people each year and, while disease management using insulin greatly improves the lives of those living with diabetes, many of them experience suboptimal outcomes. Fluicell's vision and ultimate goal is to obtain a curative solution for type 1 diabetes. Our regenerative medicine research is aimed at creating bioprinting tissues with the capacity to facilitate organ repair or replace lost functionality. With this as a foundation, Fluicell is using the capacity of our bioprinting platform Biopixlar to generate detailed tissues with high precision to engineer artificial islets. We have made considerable discovery phase progress and have hit key milestones regarding pseudo-islet functionality and production capacity. We continue to make functional improvements as we prepare for progressing into preclinical proof of concept, which we aim to start in 2024 in collaboration with an academic partner.

(continued on next page...)



One of your industry peers in the bioprinting and tissue therapeutics market, Aspect Biosystems, recently entered a partnership with Novo Nordisk to develop bioprinted tissue therapeutics for diabetes and obesity. What is your opinion of the deal, and what are the implications for Fluicell as well as the industry as a whole?

At present, most of our revenue is generated from technology development and instrument sales. This sector is constantly expanding, and we are dedicated to exploring new avenues to capture arising opportunities, while also improving our sales pipeline to drive growth. Nevertheless, our therapeutic and tissue model programs hold the greatest potential.

Recent agreement between Novo Nordisk and the Canadian bioprinting company Aspect Biosystems put a value on establishing therapeutics in our field at USD 650 million. This is a very good news, and this could serve as a benchmark for future deals in the area. We see this as a clear validation of Fluicell's strategic direction: our approach is right, and the potential is high.

We see that what we offer is a unique capacity to engineer artificial islets, which has the potential to be a true game changer for type 1 diabetes treatment. To advance diabetes therapy, there is a need to advance beyond insulin injections. Cell-based therapies that can replicate the full endocrinal function of the pancreas is regarded by many in the field as the most promising alternative to achieve this. And that is precisely what we believe we have the potential to do.

You have several exciting projects and activities ahead. Which results would you like to highlight, and what do you see as particularly interesting for an investor to monitor going forward?

As I was saying in the answer to the first question, our plan is to continue advancing in our three business areas research solutions, human in vitro models, and regenerative medicine and meet the goals that we communicated in the prospectus which was published last year. These three areas represent rapidly growing markets where Fluicell has the ability to deliver a key advantage. Some of the important advances we have planned for this year are expected to give results in 2024, but we also have several goals that we have already met or intend to meet this year.

We are placing our greatest emphasis on developing tissue therapeutics, with particular focus on type 1 diabetes. Our initial results have been highly promising, and we are fully committed to advancing this vital work. We have made exciting progress in our development and plan to continue communicating our advances throughout the year. I encourage the investors to read the white paper which was recently published.

May 15, 2023



Victoire Viannay, CEO

Victoire was previously COO but is the CEO of Fluicell since 2017 and holds a PhD in Law from Université Paris II Panthéon/Assas. She is a former Legal & HR Assistant Manager at Institut Curie, former Project Leader at Chalmers University of Technology in Gothenburg, former Chief HR and Legal Officer at PSL Research University. Victoire has more than 10 years of experience in labor laws, human resources, and legal management in the scientific research field.

Ownership: *Victoire personally owns 35,750 shares in Fluicell AB*



Mats Jonasson, Chief Financial Officer

Mats is the Chief Financial Officer of Fluicell since 2016 via Business Control Partner Norden AB which provides financial advisory and services to small- and mid-sized enterprises. He studied Economy at University of Gothenburg and has over 20 years of experience as a CFO in companies such as TiFiC AB and NTEX AB.

Ownership: *Mats personally owns 15,000 shares in Fluicell AB*



Gavin D. M. Jeffries, Chief Technology Officer

Gavin is the Chief Technology Officer of Fluicell since 2017. He holds a PhD in Chemistry from the University of Washington, Seattle. Gavin was Assistant Professor at Chalmers University for 4 years and has published over 40 peer reviewed scientific publications with over 1,000 citations. Furthermore, he has co-founded two companies in biotech and optics and is an inventor of multiple patents. Gavin's specialty is within microfluidics, single-cell analysis, and optical platform integration.

Ownership: *Gavin personally owns 75,500 shares in Fluicell AB and 215,000 shares through Jeffries and Associates AB*



Tatsiana Lobovkina, Chief Scientific Officer

Tatsiana Lobovkina is the Chief Scientific Officer of Fluicell since 2018 and Assistant professor at Chalmers University of Technology. After completing a PhD in Chemistry from Chalmers, she completed three years of postdoctoral studies at Stanford University in the U.S. Tatsiana has more than 10 years of experience and her specialty lies within biophysics and bio-mimics where she has published several scientific publications in international journals.

Ownership: *Tatsiana personally own 4,912 shares in Fluicell AB*



Jonas Hannestad, Chief Marketing and Communications Officer

Jonas joined Fluicell in 2019 and is the Chief Marketing and Communications Officer since 2020. He holds a PhD in Physical Chemistry from Chalmers University of Technology and has experience as a postdoctoral researcher at RISE Research Institutes of Sweden. Jonas has multi-disciplinary background and experience in projects related to scientific research as well as independently managing science communication projects where science, art and technology meets.

Ownership: *Jonas personally owns 335 shares in Fluicell AB*



Nelson Khoo, Chief Business Development and Sales Officer

Nelson joined Fluicell in 2022 as Chief Business Development and Sales Officer. He has entrepreneurial experience from leading positions focused on commercialization and business development activities in several biotech companies. Moreover, Nelson has a background as researcher at Umeå University within cancer and diagnostics research.

Ownership: *Nelson personally owns 40,000 shares in Fluicell AB*



Carolina Trkulja, Chief Innovation Officer

Carolina, who has served as the Chief Innovation Officer of Fluicell AB since May 2023, holds a PhD in biophysical chemistry from Chalmers University of Technology. Her expertise spans many years in drug development, particularly in lead generation and preclinical development. Carolina is the founder of Oblique Therapeutics, inventor of multiple patents, and has published in several renowned scientific journals.

Ownership: *Carolina does not own any shares in Fluicell AB*



Stefan Tilk, Chairman of the Board

Stefan is the Chairman of the Board since 2016 and CEO at NEVS AB. He has an MSc in Engineering Physics from Chalmers University of Technology and studied Business Administration in Barcelona School of Economics. Stefan has extensive experience, managing and developing companies as a CEO, including Geveko AB and Elof Hanson Group. He is also a former Senior Executive VP for both Volvo Buses and Trucks as well as at Coor. Stefan has a strong business acumen where he is particularly skilled in negotiations, business planning, operations management, sales, and international business.

Ownership: *Stefan owns 65,000 shares in Fluicell AB through STILK AB and is independent in relation to both the Company and major shareholders*



Owe Orwar, Board member

Owe is a Board member since 2015 and the CEO of Oblique Therapeutics and Senior Group Leader at the Karolinska Institute. After completing a PhD in Chemistry at University of Gothenburg, he completed two years of postdoctoral studies at Stanford University. Owe has been a former Global VP of R&D at Sanofi, former President of Piramal Healthcare and is a co-founder of six biotech companies. Owe has over 20 years of experience in the pharma and biotech industry. Holder of more than 75 patents, author of hundreds of research articles, he is a pioneer in the fields of single-cell biology and biophysics with several products on the global market.

Ownership: *Owe owns 158,638 shares in Fluicell AB through Clavis & Vose Invest AB. He is dependent in relation to the Company, but independent in relation to major shareholders*



Gavin D. M. Jeffries, Board member

Besides being the CTO, Gavin is also a Board member of Fluicell since 2012. He holds a PhD in Chemistry from the University of Washington, Seattle. Gavin was Assistant Professor at Chalmers University for 4 years and has published over 40 peer reviewed scientific publications with over 1,000 citations. Furthermore, he has co-founded two companies in biotech and optics and is an inventor of multiple patents. Gavin's specialty is within microfluidics, single-cell analysis, and optical platform integration.

Ownership: *Gavin personally owns 75,500 shares in Fluicell AB and 215,000 shares through Jeffries and Associates AB. He is dependent in relation to the Company but independent in relation to major shareholders*



Daniel T. Chiu, Board member

Daniel is a Board member of Fluicell since 2017. He has been a Professor of Chemistry and Bioengineering at the University of Washington since 2006. After graduating from Stanford University, he completed postdoctoral research at Harvard University. Daniel is a founder of multiple life science companies across Asia, Europe, and the U.S. Furthermore, he is a member and/or chairman in several scientific advisory and review panels for both government and industry. Daniel is considered a pioneer in the field of single-cell biology with several products on the global market, authoring over 200 scientific publications and an inventor of over 60 issued patents.

Ownership: *Daniel cannot own shares in Fluicell AB due to his American residency*

Carl Fhager, Board member



Carl is a Board member in Fluicell since 2017. He holds a Master of Laws from University of Gothenburg and is a distinguished lawyer at MAQS' Gothenburg Office. Carl has extensive experience of commercial agreements, including ones relating to cooperation, commission and purchasing, as well as to terms and conditions. He is specialized in the sports, media, and entertainment industry in which he has worked for over 10 years, in addition to being the sports director of the football club BK Häcken for 4 years. Carl's multilateral expertise in both legal and managerial matters has led him to assist many boards as an advisor, or to simply join them as a member or chairman.

Ownership: *Carl cannot own shares in Fluicell AB due to working as a lawyer at MAQS*

Regina Fritche Danielson, Board Member



Regina is a board member since 2022 and holds a PhD in cardiovascular physiology and pharmacology from the University of Gothenburg. Regina is currently the Senior Vice President and Head of Research and Early Development for the cardiovascular, renal and metabolic disease areas at AstraZeneca, leading drug development from target discovery through clinical Proof-of-Concept in the areas of unmet medical need. The main focus of Regina's research activities is to develop new therapies to stop progression or cure disease with regenerative approaches as well as personalized medicine as core strategic attributes. Regina's other commitments involve being a steering committee member of several strategic research collaborations including the British Heart Foundation Centre for Research Excellence (CRE) Cambridge, the Physiological Systems Domain Panel and the Medical Research Council (MRC).

Ownership: *Regina does not own shares in Fluicell AB and is independent in relation to both the Company and major shareholders*

Share Price Development - 1 Year



Base scenario (SEKm)	2019	2020	2021	2022	2023E	2024E	2025E	2026E
Net Revenue	2.5	4.6	2.6	3.3	11.8	21.6	45.1	68.6
Other Operating Income	0.1	0.2	1.4	3.8	1.2	1.2	0.0	0.0
Total Revenue	2.6	4.9	4.0	7.0	13.0	22.8	45.1	68.6
Cost of Goods Sold (COGS)	-0.4	-1.0	-0.7	-0.7	-2.4	-4.3	-9.0	-13.7
Gross Profit	2.1	3.9	3.3	6.4	10.6	18.4	36.1	54.9
Gross Margin	82.9%	79.7%	82.1%	90.6%	81.9%	81.1%	80.0%	80.0%
External Costs	-8.3	-7.1	-9.9	-10.5	-11.8	-13.2	-14.8	-16.5
Staff Costs	-12.0	-13.2	-14.4	-16.9	-17.7	-18.5	-19.3	-20.1
Other Operating Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	-18.2	-16.4	-21.1	-21.0	-18.9	-13.3	2.0	18.2
EBITDA margin	neg	neg	neg	neg	neg	neg	4.4%	26.6%
Depreciation and Amortization	-0.5	-0.6	-0.6	-0.7	-0.9	-1.0	-1.2	-1.4
EBIT	-18.7	-17.0	-21.7	-21.7	-19.7	-14.3	0.8	16.8
EBIT margin	neg	neg	neg	neg	neg	neg	1.7%	24.5%
Financial Income	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0
Financial Expenses	0.0	-0.6	0.0	-0.2	-0.2	0.0	0.0	0.0
EBT	-18.6	-17.6	-21.7	-21.6	-19.6	-14.3	0.8	16.8
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	-18.6	-17.6	-21.7	-21.6	-19.6	-14.3	0.8	16.8
Net Income Margin	neg	neg	neg	neg	neg	neg	1.7%	24.5%
Ratios	2019	2020	2021	2022	2023E	2024E	2025E	2026E
P/S	19.5x	10.5x	18.6x	14.9x	4.1x	2.2x	1.1x	0.7x
EV/S	13.5x	7.2x	12.9x	10.3x	2.8x	1.6x	0.7x	0.5x
EV/EBITDA	neg	neg	neg	neg	neg	neg	16.9x	1.8x

Bull scenario (SEKm)	2019	2020	2021	2022	2023E	2024E	2025E	2026E
Net Revenue	2.5	4.6	2.6	3.3	13.7	23.5	47.0	82.3
Other Operating Income	0.1	0.2	1.4	3.8	1.2	1.2	0.0	0.0
Total Revenue	2.6	4.9	4.0	7.0	14.9	24.7	47.0	82.3
Cost of Goods Sold (COGS)	-0.4	-1.0	-0.7	-0.7	-2.7	-4.7	-9.4	-16.5
Gross Profit	2.1	3.9	3.3	6.4	12.2	20.0	37.6	65.9
Gross Margin	82.9%	79.7%	82.1%	90.6%	81.6%	81.0%	80.0%	80.0%
External Costs	-8.3	-7.1	-9.9	-10.5	-11.8	-13.2	-14.8	-16.5
Staff Costs	-12.0	-13.2	-14.4	-16.9	-15.9	-16.7	-17.4	-18.1
Other Operating Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	-18.2	-16.4	-21.1	-21.0	-15.6	-9.9	5.4	31.2
EBITDA margin	neg	neg	neg	neg	neg	neg	11.6%	37.9%
Depreciation and Amortization	-0.5	-0.6	-0.6	-0.7	-0.9	-1.1	-1.3	-1.6
EBIT	-18.7	-17.0	-21.7	-21.7	-16.4	-10.9	4.1	29.6
EBIT margin	neg	neg	neg	neg	neg	neg	8.8%	36.0%
Financial Income	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0
Financial Expenses	0.0	-0.6	0.0	-0.2	-0.2	0.0	0.0	0.0
EBT	-18.6	-17.6	-21.7	-21.6	-16.3	-10.9	4.1	29.6
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	-18.6	-17.6	-21.7	-21.6	-16.3	-10.9	4.1	29.6
Net Income Margin	neg	neg	neg	neg	neg	neg	8.8%	36.0%
Ratios	2019	2020	2021	2022	2023E	2024E	2025E	2026E
P/S	19.5x	10.5x	18.6x	14.9x	3.5x	2.1x	1.0x	0.6x
EV/S	13.5x	7.2x	12.9x	10.3x	2.4x	1.4x	0.7x	0.4x
EV/EBITDA	neg	neg	neg	neg	neg	neg	6.2x	1.1x
Bear scenario (SEKm)	2019	2020	2021	2022	2023E	2024E	2025E	2026E
Net Revenue	2.5	4.6	2.6	3.3	9.8	17.6	43.1	54.9
Other Operating Income	0.1	0.2	1.4	3.8	1.2	1.2	0.0	0.0
Total Revenue	2.6	4.9	4.0	7.0	11.0	18.8	43.1	54.9
Cost of Goods Sold (COGS)	-0.4	-1.0	-0.7	-0.7	-2.0	-4.4	-12.9	-19.2
Gross Profit	2.1	3.9	3.3	6.4	9.0	14.4	30.2	35.7
Gross Margin	82.9%	79.7%	82.1%	90.6%	82.2%	76.6%	70.0%	65.0%
External Costs	-8.3	-7.1	-9.9	-10.5	-11.9	-13.5	-15.2	-17.2
Staff Costs	-12.0	-13.2	-14.4	-16.9	-19.5	-20.4	-21.3	-22.1
Other Operating Expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	-18.2	-16.4	-21.1	-21.0	-22.4	-19.4	-6.3	-3.7
EBITDA margin	neg	neg	neg	neg	neg	neg	neg	neg
Depreciation and Amortization	-0.5	-0.6	-0.6	-0.7	-0.9	-1.1	-1.3	-1.6
EBIT	-18.7	-17.0	-21.7	-21.7	-23.2	-20.5	-7.7	-5.3
EBIT margin	neg	neg	neg	neg	neg	neg	neg	neg
Financial Income	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0
Financial Expenses	0.0	-0.6	0.0	-0.2	-0.2	0.0	0.0	0.0
EBT	-18.6	-17.6	-21.7	-21.6	-23.1	-20.5	-7.7	-5.3
Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	-18.6	-17.6	-21.7	-21.6	-23.1	-20.5	-7.7	-5.3
Net Income Margin	neg	neg	neg	neg	neg	neg	neg	neg
Ratios	2019	2020	2021	2022	2023E	2024E	2025E	2026E
P/S	19.5x	10.5x	18.6x	14.9x	5.0x	2.8x	1.1x	0.9x
EV/S	13.5x	7.2x	12.9x	10.3x	3.4x	1.9x	0.8x	0.6x
EV/EBITDA	neg	neg	neg	neg	neg	neg	neg	neg

Patent family #1 : "Pipettes, methods of use, and methods of stimulating an object of interest"

Application Number	Applicant	Status	Region	Inventors	Filing Date	Publication Date	Expires
US 13/486,599	Owe Orwar	Granted as patent US 9,126,197	US	Owe Orwar, Alar Ainla, Aldo Jesorka	Jun 1, 2012	Sep 8, 2015	Dec 3, 2030
US 14/823,199	Fluicell AB	Granted as patent US 9,671,366	US	Owe Orwar, Alar Ainla, Aldo Jesorka	Aug 11, 2015	Dec 3, 2015	Dec 3, 2030
EP 15199422.5	Fluicell AB	Validated as patent EP 3 023 151 in Sweden, the Netherlands, Denmark, France, Switzerland, UK and Germany	EU	Owe Orwar, Alar Ainla, Aldo Jesorka	Dec 3, 2010	May 25, 2016	Dec 3, 2030

Note: This patent family protects the basal technology and principle behind the microfluidic pipette Biopen and its use

Patent family #2: "Microfluidic device with holding interface, and methods of use"

Application Number	Applicant	Status	Region	Inventors	Filing Date	Publication Date	Expires
US 14/072,153	Fluicell AB	Granted as US 9,658,240 B2	US	Owe Orwar, Alar Ainla, Aldo Jesorka, Gavin Jeffries	Nov 5, 2013	May 23, 2017	May 7, 2032
EP 21150588.8	Fluicell AB	Ongoing	EU	Owe Orwar, Alar Ainla, Aldo Jesorka, Gavin Jeffries	Jan 7, 2021	Sep 29, 2021	May 7, 2032

Note: This patent family protects the pipette holder in Biopen and the use of the pipette

Patent family #3: "Methods to fabricate, modify, remove and utilize fluid membranes"

Application Number	Applicant	Status	Region	Inventors	Filing Date	Publication Date	Expires
US 15/440,673	Fluicell AB	Ongoing	US	Alar Ainla, Irep Gözen, Aldo Jesorka, Mehrmaz Shaali	Feb 23, 2017	Jun 8, 2017	Jan 19, 2034
EP 14747112.2	Fluicell AB	Validated as EP 2 945 745 in Sweden, the Netherlands, Denmark, France, Switzerland, UK and Germany	EU	Alar Ainla, Irep Gözen, Aldo Jesorka, Mehrmaz Shaali	Jan 19, 2014	Nov 25, 2015	Jan 19, 2034

Note: This patent family protects the process of biomolecular printing and development of 2D-patterns of biological membranes on surfaces

Patent family #4: "Methods and systems utilizing recirculating fluid flows"

Application Number	Applicant	Status	Region	Inventors	Filing Date	Publication Date	Expires
US 62/538,272	Fluicell AB	Ongoing	US	Owe Orwar, Alar Ainla, Gavin Jeffries, Shijun Xu	Jul 27, 2018	May 28, 2020	Jul 27, 2038
EP 3658199	Fluicell AB	Ongoing	EU	Owe Orwar, Alar Ainla, Gavin Jeffries, Shijun Xu	Jul 27, 2018	Jun 3, 2020	Jul 27, 2038

Note: The patent relates to the technology supporting bioprinting

Patent family #5: "Methods and systems for generating three-dimensional biological structures"

Application Number	Applicant	Status	Region	Inventors	Filing Date	Publication Date	Expires
PCT/IB2020/000900	Fluicell AB	Ongoing	World	Owe Orwar, Gavin Jeffries, Shijun Xu, Vladimir Kirejev	Oct 19, 2020	Apr 29, 2021	Oct 19, 2040

Note: This patent relates to the methods integrating specific cell sources with precise positioning into complex tissue models through 3D bioprinting

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Other

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