

# Fluicell's path to success



A core part of our identity and driving force at Fluicell has always been to create unique technologies to change how research is done at the core. With the release of Biopixlar back in 2019 we challenged the very notion of what bioprinting is by removing scaffolding material and cell damaging processes to instead build tissues directly using the cells themselves.

Creating new paths is never easy and comes with its own set of challenges. But through the unique tissue engineering capabilities that Biopixlar offers, Fluicell is now in a position to target areas that are some of the most important when it comes to shaping the future of medicine.

## Income opportunities in tissue-based disease models

Through our collaboration with Hoffmann-La Roche, we are creating bioprinted cardiac models for use in safety pharmacology screening. This is an area where the state of the art is still cell grown on plastic in two dimensions and where Fluicell's engineered tissues could make a tremendous impact, moving the entire field forward.

The current research project, which is our second together with Roche, was initiated in March this year and is expected to be finalized by the end of 2023. The collaboration is proceeding according to plan, and we have so far successfully delivered on the first project milestone. A key part of the project is to enable integration of our printed cardiac tissues within existing workflow, a critical aspect to facilitate actual implementation of the technology within pharmaceutical development.

Our ongoing research collaboration establishes a validation for our tissue engineering technology from major pharma and creates a strong foundation for future licensing deals. The markets that we are able to target directly through our cardiac models are estimated to grow to in total USD 35 billion by 2030. While it is difficult to translate what this could mean in terms of direct

income opportunities, we estimate that a single licensing deals for bioprinted tissue models would put Fluicell in a positive cash flow situation and the this represents a substantial growth opportunity for the company.

## Positive development within diabetes cell therapy

In parallel to building the framework for a disease model out licensing program, we are also steadily advancing our type 1 diabetes program. Within type 1 diabetes, our goal is to develop artificial pancreatic islets to replace the glycostatic function of the pancreas. The number of people living with type 1 diabetes is expected to increase to 15 million by 2040, with increasing healthcare costs as a result. Fluicell's therapeutic solution has the potential to significantly improve diabetes care compared to currently available insulin-based treatment, which could result in reduced annual disease-related costs by close to USD 29 billion in the US alone.

As we have previously communicated, our goal is to enter in vivo development in 2024 to generate preclinical proof of concept. Obtaining initial in vivo results is a key step to being able to attract major pharmaceutical companies for partnership. To be able to achieve this, we are focusing our R&D efforts on obtaining sufficient in vivo data as soon as possible. We see that there is a growing interest among pharmaceutical companies for type one diabetes cell therapy, with recent deals valued between USD 600-100 million. Given that we are able to continue development at the current pace, we hope to be able to enter into a similar type of partnership within the coming years. With our ability to engineer artificial islets with high precision we see that we have unique capabilities that are not matched by any other actor on the market.

For a comprehensive view over Fluicell's development goals and the current state of type 1 diabetes in the world, please read the [white paper](#) that we published on May 16 this year.

### **With the goal set for 2030**

Through our tissue-based disease models and through our tissue-based therapeutics, Fluicell is a strong driving force within two of the most important transformations happening within medicine right now. Our tissue-based models are responding to an increasing demand from pharmaceutical companies and legislators for non-animal research models and our tissue-based therapeutics are part of the foundation for a new paradigm within medicine.

All this makes Fluicell better positioned for success than perhaps ever before. In 2030, I envision Fluicell as a profitable life-science company with a diverse and stable income stream that combines research services, licensing incomes, revenue from partnerships and research grant income. Our vision for Fluicell is clear: We aim to be the provider of the most sought-after research solutions and drug development models and the partner of choice for tissue-based therapeutic development. Our goal is set, now is the time for us to achieve it together.



**Victoire Viannay**

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