

Catalyze4life

REDinal

GROUP 03

Tobias Bodenmann, Arnault Monoyer, Matthieu Sayar, Elise Joulain

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1 Executive summary

At REDinal we have set the goal to give back autonomy to blind patients by restoring their vision. To do so we are developing an innovative epiretinal implant. This implant collects infrared radiation from our environment and converts it into electrical signals to stimulate the retina and restore a new way of vision.

The key characteristics of our prosthesis are the following :

1. It is photovoltaic, and thus, does not require any cables.
2. It contains an integrated microchip that processes the signal, and therefore, the implant functions without any external devices.
3. It is wide-field, so it covers a large surface of the retina and restores a large field of view (45°), sufficient for allowing patients to live independently.
4. It consists of 10 500 electrodes, meaning 25 times more compared to the next best existing solution, providing a much higher resolution.
5. Because of its flexible materials, it is injectable which decreases the complexity of the surgery, taking less time, and thus, reducing any potential risks.

Finally, we provide all of these advantages, yet to a lower price of only 20 000 CHF for our product. Given the two years lifespan of our product this makes 10 000 CHF per year.

2 Description of the commercial potential project

Around 49 Million people worldwide suffer from total blindness. Considering Switzerland alone, we are talking about 50 000 people with complete vision loss. With our technology we are confident to give back autonomy to 60% of these patients by establishing a new way of vision. Given the lack of viable solutions currently on the market, we are confident to establish ourselves with our innovative implant amongst our two competitors. Our ambitious, nevertheless realistic goal of reaching 20% of the curable patients compatible with our technology, would thus result in up to 6 000 potential customers in our home market. For each of them, the society's willingness to pay is 10 000 CHF per year. Therefore, the price of our implant fits perfectly this amount. Last but not least, the number of blind people worldwide is expected to triple by 2050 showing the enormous potential of this market.

3 How Catalyze4Life will facilitate the technology transfer of your technology ?

The support of Catalyze4Life will allow us to go through the first phase of our clinical trials with enough resources for the following trial phases. This by keeping the overall goal in mind of eventually being approved by the EMA. This approval will then allow the beginning of the commercialisation, making our device available to all the patients in need.

Furthermore, with both, your financial and network-related support, we hope to establish ourselves in our field and build awareness around REDinal and our product.

4 Tangible milestones

4.1 Milestone 1

4.1.1 Description

Finance a part of our first phase of clinical trials

4.1.2 Budget and Duration

- 14000 CHF for production costs of implants with our manufacturer
- 6000 CHF for supplementary rehabilitation

The milestone will last an entire year

4.1.3 Deliverables

- Produce 14 functional and safe implants
- Show improved vision adaptation and regain of autonomy in patients

4.2 Milestone 2

4.2.1 Description

Build awareness around REDinal and our product

4.2.2 Budget and Duration

10000 CHF and C4L's network will be used for marketing during the year

4.2.3 Deliverables

- Participate in conferences and competitions
- Establish partnerships with 3 clinics