

Category

Best Startup

Product/Solution Name

OdySight

Date of Approval

N/A

Indications

Maculopathy

Therapeutic Categories

Ophthalmology

Attached Files:

- 220623 Letter of support for Prix Galien USA Tilak 33.pdf

Background information and need for solution/product

Worldwide, there are 650 million people who require regular vision assessments. Vision-related diseases cost healthcare systems EUR 7.2 billion. For age-related maculopathy (AMD) specifically, anti-VEGF injections can delay disease progression, helping patients see better for longer. These injections are most effective when administered within a week of a decrease in visual acuity. However, the primary issue today is that neither patients nor doctors can detect these drops due to a lack of reliable self-monitoring tools.

The need for accurate and modern vision monitoring is becoming increasingly important due to several factors:

- An aging population, leading to more age-related eye diseases
- The dwindling number of doctors per inhabitants worldwide, putting a strain on ophthalmologists and making "medical time" even more precious
- The development of next-generation anti-VEGF injections that will increase the time interval needed between injections from 4 to 8 weeks today, to 8-16 weeks in the future. These new treatments will only be able to be widely adopted if safe self-monitoring tools are deployed simultaneously to ensure patients are not left without medical monitoring for too long. This will help limit the risk of undiagnosed disease progression between medical appointments, particularly the bilateralization of the disease.

As such, Tilak was founded in 2016 by French video game expert Edouard Gasser (with over 10 years of experience at Gameloft) and retina specialist Professor José-Alain Sahel, an ophthalmologist at the top hospital for retina diseases in France, Centre Hospitalier des 15-20. They recognized the huge medical need for remote monitoring of vision and decided to transform the millions of hours that the elderly spend on mobile video games, such as Candy Crush, into useful time for testing vision parameters from a smartphone. This is where the motto "You play, we care" comes from.

OdySight aims to detect even the slightest visual acuity decreases (which can often go unnoticed) and

notify both patients and doctors that the time is ripe for a medical appointment / a treatment. It is a CE-marked (Class I) medical device that is available on prescription in France. Over 10,000 patients are using the solution, and more than 30% of French retina specialists prescribe it. In France, OdySight is financed by the French social security as part of an early-access program, which allows for a robust business model with recurring revenues. OdySight is also available in Spain, Belgium, the Netherlands, and the United States (currently free while clear business models are put in place).

Since 2016, Tilak has gone through several rounds of fundraising, raising a total of EUR 8 million, and is now about to close a Series B round of approximately EUR 10 million to fuel the company's hypergrowth. Tilak currently has around 40 full-time employees and aims to increase to 60 by the end of 2023 to support both local teams in unlocking full-time reimbursement in France and international teams that will focus on US expansion.

Attached Files:

- Tilak Healthcare_Corporate Presentation_Galien USA_June 2023.pdf

History of the development of the solution/product

The first prototype of OdySight was released in 2017 and obtained its CE mark in 2018. The first pilot was launched in France, and the first clinical study (TIL-001) showed that OdySight clinical tests are equivalent to in-clinic tests when supervised by a clinician.

In 2019, the commercial partnership with Novartis led to wider adoption by physicians and more data being collected.

In 2020, another partnership with Novartis led to the launch of OdySight in the US (under PHE) and Spain, Netherlands, and Belgium between 2020 and 2022.

During that time, another study was done (TIL-002) to demonstrate that OdySight visual acuity measures are equivalent to those of standard methods when used by the patient at home (without supervision). As such, OdySight can be used for remote monitoring of visual acuity. Its final publication is pending.

In 2022, OdySight became the first remote monitoring solution in ophthalmology to be reimbursed thanks to a French program aiming at financing promising innovation (called Article 51). At the same time, a promotion agreement with Laboratoire Théa was signed. Both events led to a huge uptake of OdySight by both physicians and patients: today >550 physicians and >10,000 patients use OdySight in France.

Another trial (TIL-003) started a few months ago to evaluate the impact of OdySight on patient management in >400 eyes across 9 centers in France. The results are expected by the end of the year. Finally, Dr. Jay Samanta from Texas Tech University Health Center started a trial to evaluate the consistency between various apps' visual acuity measures and those in the clinic.

In parallel with Tilak's clinical trials, several patient clinical cases have been developed to highlight situations in which OdySight has contributed to improved patient visual health. Additionally, KOLs in France have initiated two studies that have shown that 20 to 32% of alerts led to a change in patient treatment. Therefore, OdySight can provide an added level of protection, to patients that are already heavily monitored and treated in the clinic due to the severity of their disease.

Over time, multiple product releases per year have led to the continuous improvement of OdySight. For example, game releases or design changes have been implemented to increase patient adherence and improve the VA decrease notification algorithm.

Attached Files:

- OdySight Study case_Cas Clinique Centre RabelaisEN.pdf

- OdySight Study case_Cas Clinique IHpital des XVXXEN.pdf
- OdySight Study case_Institut ophtalmologique SourdilleAtlantique_EN.pdf
- Tilak Healthcare_Clinical Development Plan_Galien USA_June 2023.pdf

Why this solution/product is innovative, the broad implications for future research, and/or how it will improve the human condition

Key differentiating aspects of OdySight include:

- Cutting-edge technology with 2 patents filed:
 - o Distance-to-screen technology allowing unparalleled accuracy and medical reliability of the medical tests (patients are told the precise distance to the screen to maintain while doing their tests and the app automatically stop the test if the distance is not maintained).
 - o Light detection: the app detects if the level of light around the patient is sufficient to allow good conditions for the medical tests.
- Uses gaming mechanics to optimize patient engagement and improve regularity and retention:
 - o Alongside the 2 medical tests available in the app, puzzles can be unlocked when tests are done to entertain/engage the patient (100+ puzzles of growing difficulty are included in the app, designed by video-games experts and healthcare professionals).
 - o Once the maximum of 5 puzzles/day is reached, the patient must log in again the next day and do their test to gain more gaming credits.
 - o Very compelling stats calculated based on +1000 patients in France show that this gaming mechanic works: users that do puzzles also do 2x as many tests as non-players and stay 3x longer.
- No competitor worldwide has managed to reach such a level of maturity (successful real-world deployment alongside clinical trial results + local reimbursement in France).

Optimizing patient pathway & outcome:

There are no reliable and modern solutions available on the market for the remote monitoring of vision parameters of age-related eye diseases. The SOC for self-assessment of visual acuity consists of the outdated paper Amsler grid (clinically validated in 1945), which a patient is meant to look at every day while closing one eye. Publications have shown the Amsler grid is neither used nor worth much (not reliable for the detection of disease recurrence).

How it will improve the human condition:

OdySight claims to improve overall human condition by:

- Maintaining patients' long-term visual acuity through better follow-up; this reduces the risk of loss of autonomy for patients.
- Improving patient care and therapeutic adjustment when needed (the right treatment at the right time).
- Improving follow-up of the second eye and timely detection of possible bilateralization.
- Enhancing patients' quality of life and satisfaction with the care received as well as their involvement in their treatment.
- Adding a safety net between scheduled appointments with the ophthalmologist.
- Enabling patients to stay on the care pathway, thanks to an improvement of patients' adherence to anti-VEGF treatment (reducing the number of lost follow-ups and treatment abandonments related to the burden of follow-up).

Future research:

Alongside OdySight, Tilak Healthcare is working on a strong pipeline of new apps to pioneer digital vision care in the fields of myopia and glaucoma.

Please provide appropriate references (ie Pubmed links)

- TIL-001: <https://link.springer.com/article/10.1007/s40123-019-0203-9>
- Clinical cases: Retrouvez les dernières actualités d'OdySight
- Investigator initiated study 1: <https://pubmed.ncbi.nlm.nih.gov/34024655/>
- Investigator initiated study 2: <https://pubmed.ncbi.nlm.nih.gov/36078941/>
- Real-world data analysis (published by Tilak): OdySight: Real-World Data Analysis of a Mobile Medical Application for Ophthalmology (ophthalmolscience.com)
- Recommendations for home monitoring in chronic maculopathy:
 - o Haute Autorité de Santé - Des recommandations pour un repérage plus précoce de la DMLA ([has-sante.fr](https://has.sante.fr))
 - o Save our Sight (SOS): a collective call-to-action for enhanced retinal care across health systems in high income countries | Eye (nature.com)
- Recent study on use of remote monitoring app in maculopathy : Home vision monitoring in patients with maculopathy: current and future options for digital technologies | Eye (nature.com)