



## **Pixium Vision and research partners report significant progress on PRIMA, a tiny wireless sub-retinal implant during ARVO - World's largest vision research annual conference**

- **Pre-clinical progress in implant performance characterization**
- **Localized responses demonstrated in non-human primate retinas**

**Paris, 4 May 2016** – Pixium Vision (FR0011950641 - PIX), a company developing innovative bionic vision systems to allow patients who have lost their sight to lead more independent lives, announced that its research partners presented four PRIMA related posters and a lecture at the Association for Research in Vision and Ophthalmology (ARVO), the main annual event for research and innovation in ophthalmology. These posters provide insights into PRIMA's performance and safety.

Stanford University team evaluated the mechanisms of retinal activation and ocular safety, indicating that PRIMA can provide prosthetic vision at video rate, thereby suggesting advanced performance in humans. The Vision Institute in Paris confirmed these modeling results on an ex-vivo blind primate retina - animal model closest to human blind retina -, showing localized, pixel specific, responses of the retinal ganglion cells to subretinal stimulation. With these results, PRIMA advances towards clinical trials in patients with macular degeneration.

**Khalid Ishaque, CEO of Pixium Vision**, said: *"We are delighted to share with the global vision research community at ARVO the exciting progress made with PRIMA, our second retinal bionic vision system. The tiny wireless micro photodiode implants, now manufactured and characterized to clinical grade, are being tested to meet the active implant safety requirements, including thermal and electrical safety standards. In parallel, Pixium Vision is refining the less invasive subretinal surgical technique ahead of the first human implant by the end of 2016".* **Khalid Ishaque** added: *"Along with the expected approval of the 150 electrode epi-retinal IRIS®II system over the summer for patients suffering from Retinitis Pigmentosa (RP), PRIMA aims at providing a less invasive and higher performance system suitable for age-related macular degeneration (AMD) patients."*

The four preclinical posters on PRIMA, a wireless subretinal photovoltaic implant, are:

- ***Implications of low prosthetic contrast sensitivity for delivery of visual information***  
Poster board #: D0184; Abstract Number: 3723 - D0184
- ***Spatio-temporal characteristics of retinal responses to subretinal photovoltaic stimulation***  
Poster board #: D0182; Abstract Number: 3721 - D0182)
- ***Retinal safety of near infrared radiation in photovoltaic restoration of sight***  
Poster board #: D0187; Abstract Number: 3726 - D0187)
- ***Ex-vivo characterization of photovoltaic subretinal implants using non-human primate retinas***  
Poster board #: B0076; Abstract Number: 603 – B0076)
- ***Photovoltaic restoration of sight in rodents with retinal degeneration.***  
Daniel Palanker, Podos Colloquium (Alcon Research Institute meeting at ARVO).

## About ARVO, the Association for Research in Vision and Ophthalmology (<http://www.arvo.org/> )

ARVO is the largest and most respected eye and vision research organization in the world. Members include nearly 12,000 researchers from over 75 countries.

Mission: ARVO advances research worldwide into understanding the visual system and preventing, treating and curing its disorders.

This year the conference takes place in Seattle USA on May 1-5.

## About Pixium Vision ([www.pixium-vision.com](http://www.pixium-vision.com), @PixiumVision)

Pixium Vision's Mission is to create a world of bionic vision for those who have lost their sight enabling them to regain partial perception and greater autonomy and improved quality of daily living. Pixium Vision is the only company today developing in parallel 2 innovative bionic retinal implant systems, which incorporate active implantable prostheses intended to treat and compensate for blindness resulting from the degeneration of retinal photoreceptor cells. The Company harnesses the rapid advances in neuroscience, neuromorphic visual processing, microelectronics / nanoelectronics, optoelectronics, neurobiology and intelligent software algorithms.

These bionic systems are intended for blind people whose optic nerve remains functional. Pixium Vision's bionic vision systems are associated with a surgical intervention as well as a rehabilitation period.

European Clinical trials are currently underway with IRIS<sup>®</sup>, the company's first bionic vision system. Patients have tolerated their implants well so far and improvements in visual perception have been observed. Pixium Vision has filed IRIS's CE mark dossier at the end of 2015 and expects CE mark approval by mid-2016.

Pixium Vision is, in parallel, also developing PRIMA, a sub retinal miniaturized wireless implant platform currently in preclinical studies. The Company plans to begin clinical trials with PRIMA in Europe in 2016.

The company is EN ISO 13485 certified.

Pixium Vision maintains close collaborations with academic and research partnerships spanning across the prestigious Vision Institute in Paris, the Hansen Experimental Physics Laboratory at Stanford University, as well as several global scientific, medical, clinical, and technology experts, resulting also in strong intellectual property portfolio.



Pixium Vision is listed on Euronext (Compartiment C) in Paris.  
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*Pixium Vision provides this press release as of the aforementioned date and does not commit to update forward looking statements contained herein, whether as a result of new information, future events or otherwise.*

*For a description of risks and uncertainties which could lead to discrepancies between actual results, financial condition, performance or achievements and those contained in the forward-looking statements, please refer to Chapter 4 "Risk Factors" of the company's Registration Document filed with the AMF under number R16-033 on April 28, 2016 which can be found on the websites of the AMF - AMF ([www.amf-france.org](http://www.amf-france.org)) and of Pixium Vision ([www.pixium-vision.com](http://www.pixium-vision.com)).*