

## SYMPOSIUM 03

# Synthetic vision: new strategies for rescuing visual perception in degenerative blindness



**nanoLIGHT**

Chairmen:



Fabio Benfenati, MD



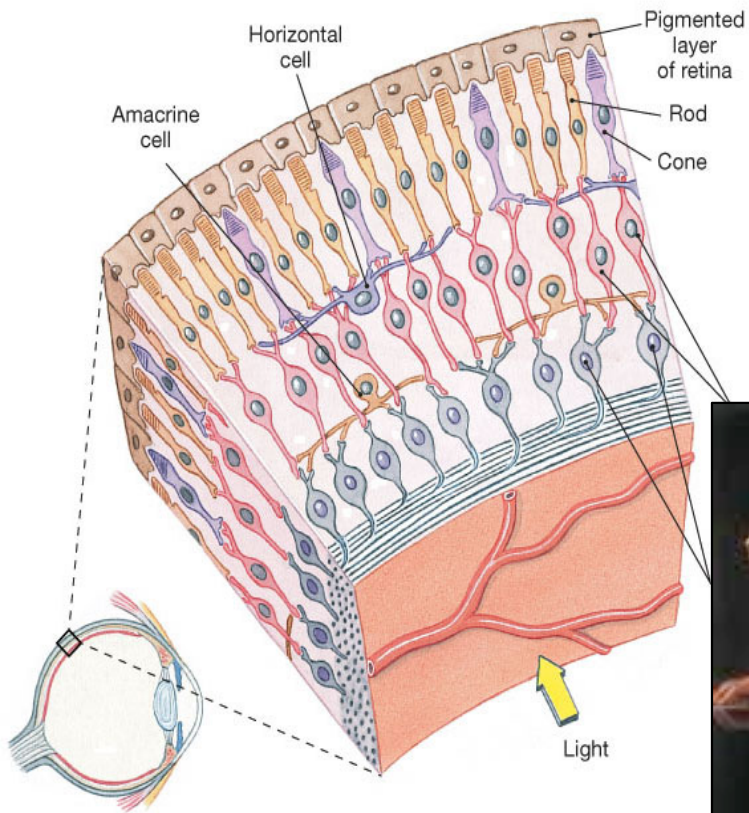
Serge Picaud, PhD

Saturday July 11, 2020

Session Time 13:00 - 14:30 (BSM)



# THERAPEUTIC STRATEGIES TO DEGENERATIVE BLINDNESS

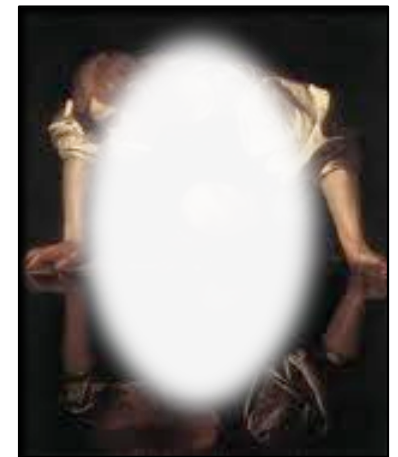


Narcisse. Caravaggio (1597-1599).  
Galleria Nazionale, Rome.

*Retinitis Pigmentosa*

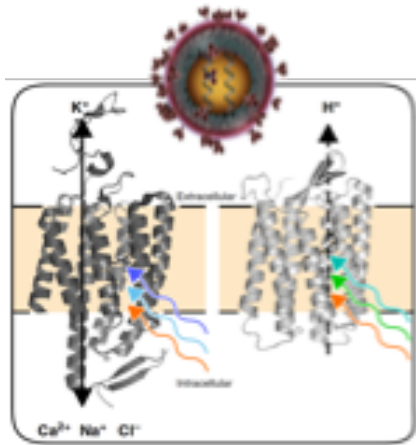


*Macular Degeneration*

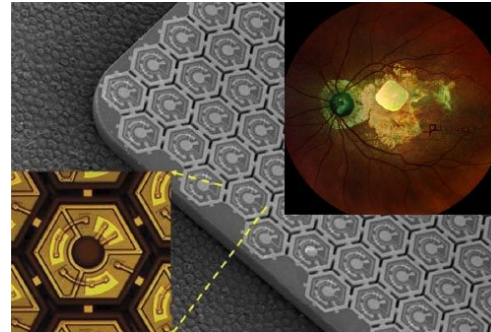


PHOTORECEPTOR DEGENERATION

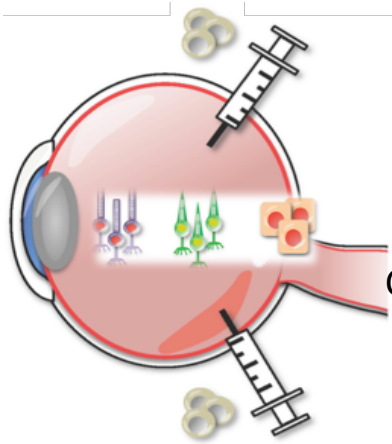
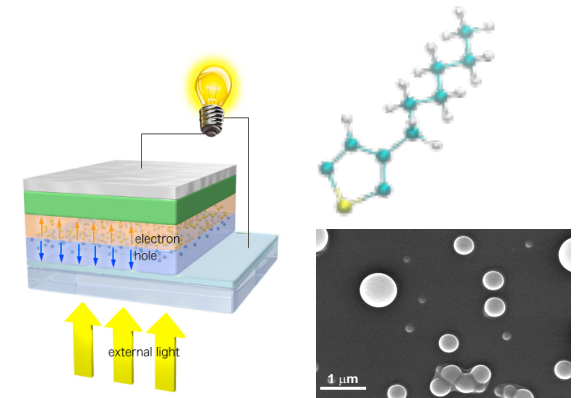
OTHER RETINAL DISEASES  
(glaucoma, diabetes, neuritis optica)



OPTOGENETICS

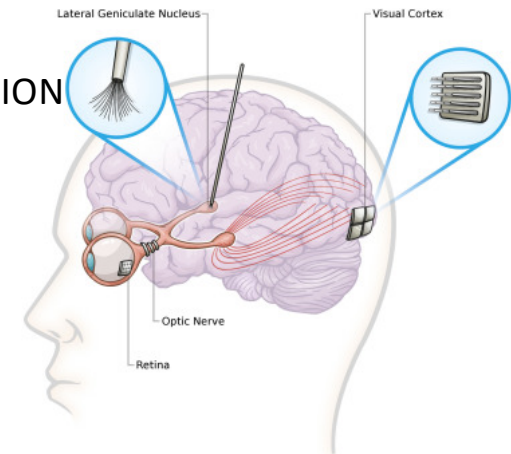


ORGANIC AND INORGANIC RETINAL PROSTHETICS



CELL THERAPY

BRAIN STIMULATION



GENE THERAPY



Leber's congenital amaurosis (LUXTURNA)



# Retinal regeneration via Muller Glia cell reprogramming



**MARIA PIA COSMA**

Reprogramming and Regeneration  
ICREA Research Professor @  
Center for Genomic Regulation  
Barcelona

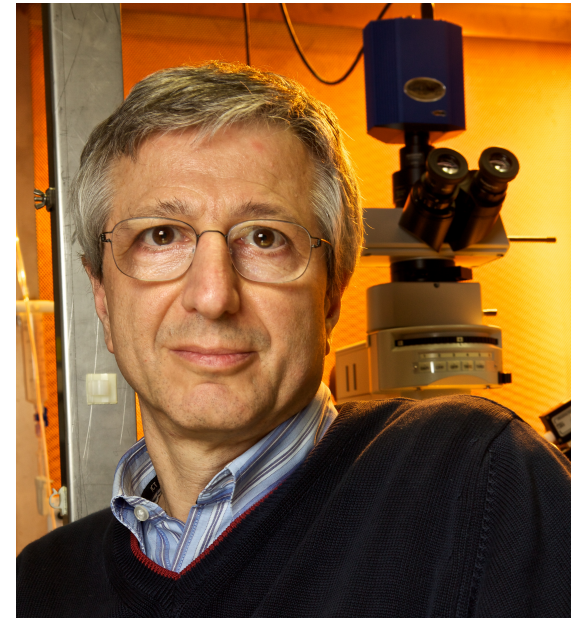
Email: [pia.cosma@crg.eu](mailto:pia.cosma@crg.eu)



ISTITUTO  
ITALIANO DI  
TECNOLOGIA



# Polymeric light-sensitive interfaces for retinal prosthetics



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# Primate preclinical validation of an infrared photovoltaic prosthesis and of optogenetic therapy for visual restoration



**SERGE PICAUD**

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# Vision restoration through electrical stimulation of visual cortex via a 1024-channel neuroprosthesis in monkeys



**XING CHEN**

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