HIGHLIGHT SEMINAR SERIES

CENTRE FOR NEUROSENSORY SYSTEMS

Retinal Gene Therapy for Vision Restoration

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Gene therapy using adeno-associated viral (AAV) vectors has shown early promise in the clinic, particularly for retinal gene therapy. The therapeutic transgene cassette can be packaged into different AAV capsid variants, each having a unique transduction profile. At present, AAV capsid serotype selection for a specific clinical trial is based on effectiveness in small animal models. Substantial progress has been made in improving effectiveness of gene therapy for eye diseases in rodents. This includes selection of the vector and promoter combination and testing phenotypic outcomes in relevant model systems. Here, I will describe recent work from my group on developing gene therapy and gene delivery strategies for treatment of retinitis pigmentosa. Our innovative therapies aim to restore vision in late stages of the disease with a special focus on high acuity vision.

Friday, 26 February 2021 – 11:00-12:00 CET
online via ZOOM

Deniz Dalkara is a researcher in INSERM, France and leads a team on gene therapies and animal models of neurodegenerative disease at the Vision Institute in Paris. She graduated with a B.S. degree in Biology in 2001. Afterwards, she obtained a masters degree in pharmacology and pharmacochemistry in Strasbourg and did her PhD degree in cellular and molecular aspects of biology. She conducted a postdoctoral fellowship at the Max Planck Institute of Biophysics before moving on to UC Berkeley in 2007. At UC Berkeley, Dr Dalkara applied viral engineering principals to enhance AAV vectors for their application in retinal degenerative diseases. Her work includes molecular evolution and engineering of viral gene delivery vehicles and their application to develop innovative gene therapeutic strategies to combat blinding diseases of the retina. She was selected Innovator under 35 –France by MIT Technology Review in 2014. Dr Dalkara received the Young Investigator award to start her group at the Vision Institute in Paris with a strong focus on translational research.

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