# SYMPOSIU[m]

## de recherche du 175e anniversaire

## 11 octobre 2018

Hôpital ophtalmique
Jules-Gonin
Service universitaire d'ophtalmologie
Fondation Asile des aveugles

UNIL | Université de Lausanne
Faculty of Biology and Medicine


BAYER
Bayer


NOVARTIS


MaxiMed
SURGICAL DIAGNOSTICS LASERS


HAAG-STREIT
SCHWEIZ


TRB CHEMEDICA


medilas ag


Alcon


Allergan


ZEISS


essilor


Johnson&Johnson VISION


mediconsult
THE WORLD OF OPHTHALMOLOGY


POLYTECH
Sehen ist Leben / Voir c'est Vivre


Théa
PHARMA


Domedics AG


Santen


BAUSCH+LOMB


GLAUKOS
Transforming Glaucoma Therapy

# Edito

This symposium will present state-of-the-art of the translational research in ophthalmology. The first part will be dedicated to genetic of inherited retinal dystrophies and the importance to maintain a patient register. Speakers will next describe different cellular pathways involved in retinal degenerations such as AMD, dystrophies, and uveitis, as well as epigenetic alterations in retinal dystrophies and uveal melanoma. The development of new technologies to better access the retina and to visualize in vivo the retina with a cellular resolution will be presented. Finally, the program ends with a session dedicated to new therapies with an emphasis on drug, gene and cell delivery.

**Comité organisateur**

Prof. Yvan Arsenijevic
Dr Olivier Lorentz
Dre Irmela Mantel
Dr Alexandre Moulin
Prof. Reinier Schlingemann
Prof. Thomas J. Wolfensberger

Avec la participation de :

SAMW ASSM
Schweizerische Akademie der Medizinischen Wissenschaften
Académie Suisse des Sciences Médicales
Accademia Svizzera delle Scienze Mediche
Swiss Academy of Medical Sciences

FONDATION POUR L'UNIVERSITÉ DE LAUSANNE

# Programme du jeudi 11 octobre

| | |
|---|---|
| 08h15 - 08h45 | *Welcome Coffee* |
| 08h45 - 09h00 | **Introduction**<br>Yvan Arsenijevic, Reinier Schlingemann, Thomas J. Wolfensberger |
| | **09:00-10:05 How to deal with gene defect?** |
| | Moderator : Christian Grimm |
| 09h00 - 09h25 | **(Patho-)Genesis of inherited cone dysfunctions**<br>Bernd Wissinger, University of Tübingen |
| 09h25 - 09h45 | **Non-Mendelian inheritance in retinal degenerations**<br>Carlo Rivolta, University of Lausanne / University of Leicester |
| 09h45 - 10h05 | **Molecular diagnostics in the era of clinical genomics : building national registries**<br>Pascal Escher, University of Bern |
| 10h05 - 10h30 | *Coffee Break* |
| | **10:30-12:05 Disease mechanisms I** |
| | Moderator : Reinier Schlingemann |
| 10h30 - 10h40 | **General introduction**<br>Reinier Schlingemann, Fondation Asile des Aveugles / University of Lausanne / University of Amsterdam |
| 10h40 - 11h05 | **The hypoxia challenge, a risk for AMD ?**<br>Christian Grimm, University of Zürich |
| 11h05 - 11h20 | **Role of GSH in retinal diseases**<br>Raphaël Roduit, Fondation Asile des Aveugles / University of Lausanne |
| 11h20 - 11h35 | **Novel target mechanisms in uveitis**<br>Yan Guex-Crosier, Fondation Asile des Aveugles / University of Lausanne |

| | |
|---|---|
| 11h35 - 11h50 | **Other than VEGF in neovascular AMD**<br>Irmela Mantel, Fondation Asile des Aveugles / University of Lausanne |
| 11h50 - 12h05 | **Biomarkers and new treatments for AMD**<br>Chiara Eandi, Fondation Asile des Aveugles / University of Lausanne |
| 12h05 - 13h20 | *Lunch* |
| | **13:20-14:25 Disease mechanisms II** |
| | Moderator : Pascal Escher |
| 13h20 - 13h35 | **Epigenetic modifications during retinal dystrophies: narrowing the therapeutic targets**<br>Yvan Arsenijevic, Fondation Asile des Aveugles / University of Lausanne |
| 13h35 - 14h00 | **BAP1 modulates the epigenetic landscape of uveal melanoma**<br>Nicolo Riggi, University of Lausanne et Alexandre Moulin, Fondation Asile des Aveugles / University of Lausanne |
| 14h00 - 14h25 | **Use of phenotypic screening to identify candidate molecules for the treatment of glaucoma and the retinal degenerations**<br>Don Zack, Johns Hopkins University School of Medicine, Baltimore, USA |
| | **14:25-15h15 New technologies** |
| | Moderator : Irmela Mantel |
| 14h25 - 14h45 | **Oblique illumination to visualize retinal cells**<br>Christophe Moser & Laura Kowalczuk, EPFL & Fondation Asile des aveugles / University of Lausanne |
| 14h45 - 15h00 | **The artificial cornea**<br>Aleksandra Petrovic, Fondation Asile des Aveugles / University of Lausanne |
| 15h00 - 15h15 | **Robotics and the eye**<br>Thomas J. Wolfensberger, Fondation Asile des Aveugles / University of Lausanne |

| | |
|---|---|
| 15h15 - 15h45 | *Coffee Break* |
| | **15:45-17:40 Drug, gene and cell therapies** |
| | Moderator : Peter Humphries |
| 15h45 - 16h10 | **On experimental molecular therapies targeting retinal degenerations and ocular hypertension**<br>Peter Humphries, University of Dublin |
| 16h10 - 16h35 | **High sensitivity optogenetic to restore vision**<br>Sonja Kleinlogel, University of Bern |
| 16h35 - 16h50 | **Retinal gene therapy, a long-term endeavor to success**<br>Corinne Kostic, Fondation Asile des Aveugles / University of Lausanne |
| 16h50 - 17h15 | **Preclinical validation of a tissue engineered product consisting in RPE derived from human embryonic stem cells disposed on human amniotic membrane**<br>Christelle Monville, INSERM / University of Paris |
| 17h15 - 17h40 | **Emerging therapies for inherited retinal degeneration**<br>Hendrik Scholl, University of Basel |
| 17h40 - 17h45 | **Conclusion** |
| 18h00 | *Aperitif* |

# Notes

www.ophtalmique.ch