Florian Sennlaub CV

Name: **Sennlaub Florian MD, PhD**
Date and place of birth: Born 22 June 1969 in Freiburg, Germany
Nationality: German

Current situation

Since 2005 Senior Staff Researcher/Group leader, DR2 Inserm
UMRS 872 Equipe 21 : Ocular degenerative and neovascular processes
Centre de Recherche des Cordeliers
15, rue de l'école de médecine, 75006 Paris
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Degrees and diplomas (where, when and specify field):

2007 : **Habilitation à Diriger des Recherches** Université Paris 5
2002-2005 : **Post doctorat**: Pharmacology, Hôpital Ste Justine, Montréal, Sylvain Chemtob.
2002: **Ph.D.** in molecular and cellular biology Université Paris 5.
2001: **Doctor Medizinae**. Magna cum laude. Charité, Université d'Humboldt, Berlin.
1999: **DEA** in "Biologie et Pharmacologie de l`Hémostase et des Vaisseaux".
1996: **3rd Staatsexamen (Final Medical State Exam)** Munich, Germany.

Additional training:

1996-97: Department of Ophthalmology Charité, Humboldt University, Berlin (Resident / Interne).

35 peer reviewed articles since 1999, 2 patents, 3 reviews

10 references for 5 past years

1. Sapieha, P., M. Sirinyan, D. Hamel, K. Zaniolo, J. S. Joyal, J. H. Cho, J. C. Honore, E. Kermorvant-Duchemin, D. R. Varma, S. Tremblay, M. Leduc, L. Rihakova, P. Hardy, W. H. Klein, X. Mu, O. Mamer, P. Lachapelle, A. Di Polo, C. Beausejour, G. Andelfinger, G. Mitchell, **F. Sennlaub** and S. Chemtob (2008). *"The succinate receptor GPR91 in neurons has a major role in retinal angiogenesis."* Nat Med **14**(10): 1067-76.
2. Lejmi, E., L. Leconte, S. Pedron-Mazoyer, S. Ropert, W. Raoul, S. Lavalette, I. Bouras, J. G. Feron, M. Maitre-Boube, F. Assayag, C. Feumi, M. Alemany, T. X. Jie, T. Merkulova, M. F. Poupon, M. M. Ruchoux, G. Tobelem, **F. Sennlaub** and J. Plouet (2008). *"Netrin-4 inhibits angiogenesis via binding to neogenin and recruitment of Unc5B."* Proc Natl Acad Sci U S A **105**(34): 12491-6.
3. Houssier M, Raoul W, Lavalette S, Keller N, Guillonneau X, Baragatti B, Jonet L, Jeanny JC , Behar-Cohen F, Coceani F, Scherman D, Lachapelle P, Ong H, Chemtob S, **Sennlaub F**. *CD36 Deficiency Leads to Choroidal Involution via COX-2 Downregulation.* PLoS Medecine. 2008 Feb; 5(2): e39.
4. Combadière C, Feumi C, Raoul W, Keller N, Rodéro M, Pézard A, Lavalette S, Houssier M, Jonet L, Picard E, Debré P, Sirinyan M, Deterre P, Ferroukhi T, Cohen S, Chauvaud D, Jeanny J, Chemtob S, Behar-Cohen F, **Sennlaub F**. *CX3CR1-dependent subretinal microglia cell accumulation is associated with cardinal features of age-related macular degeneration.* J Clin Invest. 2007 Oct;117(10):2920-8.
5. Checchin D, **Sennlaub F,** Levavasseur E, Leduc M, Chemtob S. *Potential role of microglia in retinal blood vessel formation.* Invest Ophthalmol Vis Sci. 2006 Aug;47(8):3595-602.
6. Mwaikambo BR, **Sennlaub F**, Ong H, Chemtob S, Hardy P. *Activation of CD36 inhibits and induces regression of inflammatory corneal neovascularization.* Invest Ophthalmol Vis Sci. 2006 Oct;47(10):4356-64.
7. Sirinyan M, **Sennlaub F**, Dorfman A, Sapieha P, Gobeil F Jr, Hardy P, Lachapelle P, Chemtob S. *Hyperoxic exposure leads to nitrative stress and ensuing microvascular degeneration and diminished brain mass and function in the immature subject.* Stroke. 2006 Nov;37(11):2807-15.
8. **Sennlaub F. (first co-author)**, E. Kermorvant-Duchemin, M. Sirinyan, S. Brault, G. Andelfinger, A. Kooli, S. Germain, H. Ong, P. d'Orleans-Juste, F. Gobeil, T. Zhu, C. Boisvert, P. Hardy, K. Jain, J.R. Falck, M. Balazy,

and S. Chemtob. 2005. *Trans-arachidonic acids generated during nitrative stress induce a thrombospondin-1-dependent microvascular degeneration.* Nat Med. 2005 Dec;11(12):1339-45.

9. Beauchamp M, **Sennlaub F**, Speranza G, Gobeil jr F, Checchin D, Lachapelle P, Varma D, and Chemtob S. *The tissue redox potential determins nitric oxide's role in retinal endothelial cell death versus survival in vivo. Free Radic Biol Med.* 2004 37:1885-1894.
10. **Sennlaub F**,Valamanesh F, Vazquez-Tello A, El-Asrar AM, Checchin D, Brault S, Gobeil F, Beauchamp MH, Mwaikambo B, Courtois Y, Geboes K, Varma DR, Lachapelle P, Ong H, Behar-Cohen F, Chemtob S. *Cyclooxygenase-2 in human and experimental ischemic proliferative retinopathy. Cyclooxygenase-2 in human and experimental ischemic proliferative retinopathy.* Circulation. 2003 ;108:198-204.

Oral communications at international conferences

Florian Sennlaub, Przemyslaw Sapieha , Mirna Sirinyan , David Hamel , Karine Zaniolo , Jeong Hee Cho, Jean-Sebastien Joyal, Daya Varma , William Klein , Grant Mitchell , Sylvain Chemtob « The Succinate Receptor GPR91 in Neurons Plays a Major Role in Retinal Angiogenesis » Asia ARVO 2009, Hyderabad :

Sennlaub F., Raoul, W., Houssier, M., Jonet, L., Pezard, A., Rodero, M., Cangialosi, A., Gao, J., Murphy, P., Jeanny, J., Behar-Cohen, F., Combadiere, C. Cardinal features of macular degeneration develop secondary to a retinal microglial egression defect in CX3CR1 chemokine receptor knockout animals.ICER 2006, Buenos Aires, Argentina

Sennlaub F, Valamanes F., Lefevre G., Chemtob S., Behar Cohen F.. Cyclooxygenase-2 in ischemic proliferative retinopathy. ARVO 2002, Fort Lauderdale USA.

Sennlaub F, Courtois Y, Goureau O. Inducible nitric oxide synthase (NOS-II): the hinge from retinal to vitreal neovascularisation. ARVO 2000, Fort Lauderdale USA.

Sennlaub F, Courtois Y, Goureau O. Nitric Oxide Synthase-II is Expressed in Severe Corneal Alkali Burns and Inhibits Neovascularization. ARVO 1999, Fort Lauderdale USA.

Invited lectures

The European Macrophage and Dendritic Society Meeting, Regensburg: *Chemokine receptor deficiencies lead to microglia accumulation and photoreceptor degeneration.* 25th September 2009.

The 10th International Ocular Inflammation Society Congress, Prague : *Inflammatory chemokine receptor deficiencies lead to different degress of spontaneous subretinal microglial cell accumulation and photoreceptor degeneration* 30th of May 2009

Retinal Degeneration - Focus on Therapy ; Pro Retina Deutschland EV ; Potsdam : *Chemokine receptor CX3CR1 in AMD* 17th of April 2009

Mechanisms of Macular Degeneration ; Twelfth Annual Vision Research Conference ; May 1-2, 2009 Ft. Lauderdale, FL : *Microglial cells and AMD: Inflammatory chemokines receptor knockout models* 2nd of May 2009

Distinguished Lecture Series ; Cole Eye Institute ; Cleveland Clinic ; Cleveland *: Chemokine Receptor CX3CR1 in Age-Related Macular Disease* 21rst of May 2009

Salon européen de la recherche ; Conférences Inserm, Paris: *La cellule microgilale au centre de la dégénérescence maculaire liée à l'âge* 5th of June 2008

Films Video conférences 2008/2009 ; Ecole d'art Beauvais : *la perception de la lumière* 15th of October 2008

Special lecture Swiss Eye Research Meeting, Brunnen,: „Cardinal features of age related macular degeneration develop secondary to a CX3CR1-dependent subretinal microglia accumulation".Janvuary 2007

Centre des Cordeliers, Paris: „Vascular remodeling and inflammation".September 2006

". 4^{ième} journée Scientifique du Reseau d'Imagerie Cellulaire et de Dynamique Moleculaire *in vivo* et *ex vivo* de Paris VI, Paris : „Confocal imaging of retinal vessels and associated cells 19 Mai 2006

Département de Pharmacologie, Université de Sherbrooke, Québec. „The role of the immediate early genes iNOS and COX-2 in ischemic proliferative retinopathy“.March 2002

Centre de Recherche Rosemont-Maisonneuve, Québec: „The class Bscavanger receptor CD36 and Age Related Macular Disease“.February 2002

Patents

Sennlaub F, Chemtob S, Ong H. *Treatment and prevention of dry -related macular degenera tion by activating CD36*. PCT: WO 2009/103160A1

Ong H, Lubell W, Sennlaub F, Chemtob S, Boglin D, Galaud F. *Azapeptides as CD36 binding compounds*. Filed July 2007

Sennlaub F, de Bizemont T, Behar-Cohen F, Courtois Y. *Gene therapy with chimeric oligonucleotides delivered by a method comprising a step of iontophoresis.* N/Ref.: 341 893 / D. 19278 / MIP.

Awards

since 1rst april 2008 : **Contrat d'interface** Inserm / Hôtel Dieu

2009/12 **Agence Nationale de Recherche: Genopat**:
From genetics to the mechanisms of alternative **comp**lement pathway-induced **tiss**ue damage in kidney and eyes. Comptiss
As CO-Investigator (PI Véronique Frémaux-Bacchi)

2008/13 **European Research Council Starting Grant** : ERCStG 210345
Subretinal Microglia play a decisive role in the development of Age-related Macular Degeneration
as the Principal Investigator

2009/12 **Agence Nationale de Recherche: Maladies Neurologiques et Psychiatriques**:
Chimiokines dans la dégénérescence Maculaire liée à l'age
As CO-Investigator (PI Christoph Combadiere)

2006/08 **Agence Nationale de Recherche: Programme Blanc** : APV05061DSA
Class B scavanger receptor CD36: a novel physiopathologic and therapeutic approach in Age related Macular Disease
as the Principal Investigator

2006/08 **Agence Nationale de Recherche: Cardiovasculaire** : RPV05016DDA
Ciblage des voies de remodelage et de maturation des néovaisseaux : une stratégie thérapeutique pour le traitement de l'angiogenèse pathologique
as a Co-investigator (PI Jean Plouët)