

## BIO SKETCH

**NAME : Florian Sennlaub**

**POSITION TITLE : Directeur de Recherche Inserm**

### EDUCATION / TRAINING

INSTITUTION AND LOCATION	DEGREE	Month/Year	FIELD OF STUDY
Université Paris 5	Habilitation à Diriger des Recherches	2008	Ophthalmology
Université Paris 5	<b>PhD</b>	2002	Ophthalmology
Humboldt University/Berlin	Medical Doctor	2001	Medicine
Ludwig-Maximilians University Munich/Germany		1990-1996	Medicine

### POSITIONS AND EMPLOYMENTS

MONTH AA – MONTH BB	Name of the Institution - Title of the Position
Since 2012 :	Team leader Equipe 14, Institut de la Vision
Since 2008	Directeur de Recherche classe 2 Inserm
2009-2011	Team leader UMRS 872 Equipe 21 : Ocular degenerative and neovascular processes; Centre de Recherche des Cordeliers, Paris
2005-2009	Senior Researcher (CR1) UMRS 872 Equipe 17 : Physiopathology of ocular diseases ; Centre de Recherche des Cordeliers, Paris, Francine Behar Cohen.
2002-2005	<b>Post doctorat:</b> Pharmacology, Hôpital Ste Justine, Montréal, Sylvain Chemtob.
1997-2002	<b>Ph.D.</b> in molecular and cellular biology Université Paris 5.
1996-97	Department of Ophthalmology Charité, Humboldt University, Berlin (AIP/Resident / Interne).

### Scientific Interests :

Dr. Florian Sennlaub is the co-team leader of the Team14 of the Vision Institute. Of German origin, he studied medicine in Germany, Scotland and France. He holds a medical degree from Humboldt University/Berlin and a science doctorate from the University René Descartes/Paris. He worked for three years at the research center of the Sainte-Justine Hospital in Montreal before creating his own team to explore the mechanisms of degeneration and ocular neovascularization at the Institute of Vision.

His work on microvascular degeneration, neovascularization and neuro-inflammation has been published in journals such as Nature Medicine, PNAS, JCI, Circulation, PLoS Medicine, American Journal of Pathology, Angiogenesis, and EMBO Mol Med.

Le Dr Florian Sennlaub co-dirige une équipe de recherche de l'Inserm à l'Institut de la Vision à Paris. D'origine allemande, il a étudié la médecine en Allemagne, en Ecosse et en France. Il a obtenu un doctorat en médecine de l'université Humboldt de Berlin et un doctorat des sciences de l'Université René-Descartes de Paris. Il s'est ensuite consacré à temps plein à la recherche en ophtalmologie. Il a travaillé pendant trois ans au centre de recherche de l'Hôpital Sainte-Justine de Montréal avant de créer sa propre équipe pour explorer les mécanismes de dégénérescence et de néovascularisation oculaires à l'Institut de la Vision (IdV). Ses travaux sur l'angiogenèse, la dégénérescence microvasculaire et rétinienne et la neuro-inflammation sont publiés dans des revues de la recherche biomédicale comme *Nature Medicine*, *PNAS*, *JCI*, *Circulation*, *PLoS Medicine*, *American Journal of Pathology*, *Angiogenesis*, et *EMBO Mol Med*.

### **Other Experiences and Professional Memberships :**

- 1998- Member, Association for Research in Vision and Ophthalmology
- 2012- Academic Editor, PLoS One

### **Selected Peer-reviewed Publications:**

- 2013 **Sennlaub, F.**, C. Auvynet, B. Calippe, S. Lavalette, L. Poupel, S. J. Hu, E. Dominguez, S. Camelo, O. Levy, E. Guyon, N. Saederup, I. F. Charo, N. V. Rooijen, E. Nandrot, J. L. Bourges, F. Behar-Cohen, J. A. Sahel, X. Guillonneau, W. Raoul and C. Combadiere (2013). "CCR2(+) monocytes infiltrate atrophic lesions in age-related macular disease and mediate photoreceptor degeneration in experimental subretinal inflammation in Cx3cr1 deficient mice." *EMBO Mol Med* 5(11): 1775-1793.
- Kermorvant-Duchemin, E., A. C. Pinel, S. Lavalette, D. Lenne, W. Raoul, B. Calippe, F. Behar-Cohen, J. A. Sahel, X. Guillonneau and **F. Sennlaub** (2013). "Neonatal hyperglycemia inhibits angiogenesis and induces inflammation and neuronal degeneration in the retina." *PLoS One* 8(11): e79545.
- 2012 Camelo, S., W. Raoul, S. Lavalette, B. Calippe, B. Cristofaro, O. Levy, M. Houssier, E. Sulpice, L. Jonet, C. Klein, E. Devevre, G. Thuret, A. Duarte, A. Eichmann, L. Leconte, X. Guillonneau and **F. Sennlaub** (2012). "Delta-like 4 inhibits choroidal neovascularization despite opposing effects on vascular endothelium and macrophages." *Angiogenesis* 15(4): 609-622.
- 2011 Lavalette, S., W. Raoul, M. Houssier, S. Camelo, O. Levy, B. Calippe, L. Jonet, F. Behar-Cohen, S. Chemtob, X. Guillonneau, C. Combadiere and **F. Sennlaub** (2011). "Interleukin-1beta inhibition prevents choroidal neovascularization and does not exacerbate photoreceptor degeneration." *Am J Pathol* 178(5): 2416-2423.
- 2010 Picard, E., Houssier, M., Bujold, K., Sapieha, P., Lubell, W., Dorfman, A., Racine, J., Hardy, P., Febbraio, M., Lachapelle, P., Ong, H., **Sennlaub, F.**, and Chemtob, S. 2010. CD36 plays an important role in the clearance of oxLDL and associated age-dependent sub-retinal deposits. *Aging (Albany NY)*.
- 2008 Houssier, M., Raoul, W., Lavalette, S., Keller, N., Guillonneau, X., Baragatti, B., Jonet, L., Jeanny, J.C., Behar-Cohen, F., Cocceani, F., Scherman, D., Lachapelle, P., Ong, H., Chemtob, S., and **Sennlaub, F.** 2008. CD36 deficiency leads to choroidal involution via COX2 down-regulation in rodents. *PLoS Med* 5:e39.
- Lejmi, E., Leconte, L., Pedron-Mazoyer, S., Ropert, S., Raoul, W., Lavalette, S., Bouras, I., Feron, J.G., Maitre-Boube, M., Assayag, F., Feumi, C., Alemany, M., Jie, T.X., Merkulova, T., Poupon, M.F.,

- Ruchoux, M.M., Tobelem, G., **Sennlaub, F.**, and Plouet, J. 2008. Netrin-4 inhibits angiogenesis via binding to neogenin and recruitment of Unc5B. *Proc Natl Acad Sci U S A* 105:12491-12496.
- Sapieha, P., Sirinyan, M., Hamel, D., Zaniolo, K., Joyal, J.S., Cho, J.H., Honore, J.C., Kermorvant-Duchemin, E., Varma, D.R., Tremblay, S., Leduc, M., Rihakova, L., Hardy, P., Klein, W.H., Mu, X., Mamer, O., Lachapelle, P., Di Polo, A., Beausejour, C., Andelfinger, G., Mitchell, G., **Sennlaub, F.**, and Chemtob, S. 2008. The succinate receptor GPR91 in neurons has a major role in retinal angiogenesis. *Nat Med* 14:1067-1076.
- 2007 Combadiere, C., Feumi, C., Raoul, W., Keller, N., Rodero, M., Pezard, A., Lavalette, S., Houssier, M., Jonet, L., Picard, E., Debre, P., Sirinyan, M., Deterre, P., Ferroukhi, T., Cohen, S.Y., Chauvaud, D., Jeanny, J.C., Chemtob, S., Behar-Cohen, F., and **Sennlaub, F.** 2007. CX3CR1-dependent subretinal microglia cell accumulation is associated with cardinal features of age-related macular degeneration. *J Clin Invest* 117:2920-2928.
- 2006 Sirinyan, M., **Sennlaub, F.**, Dorfman, A., Sapieha, P., Gobeil, F., Jr., Hardy, P., Lachapelle, P., and Chemtob, S. 2006. Hyperoxic exposure leads to nitrative stress and ensuing microvascular degeneration and diminished brain mass and function in the immature subject. *Stroke* 37:2807-2815.
- 2005 Kermorvant-Duchemin, E., **Sennlaub, F.**, Sirinyan, M., Brault, S., Andelfinger, G., Kooli, A., Germain, S., Ong, H., d'Orleans-Juste, P., Gobeil, F., Jr., Zhu, T., Boisvert, C., Hardy, P., Jain, K., Falck, J.R., Balazy, M., and Chemtob, S. 2005. Trans-arachidonic acids generated during nitrative stress induce a thrombospondin-1-dependent microvascular degeneration. *Nat Med* 11:1339-1345.
- 2003 **Sennlaub, F.**, Valamanesh, F., Vazquez-Tello, A., El-Asrar, A.M., Checchin, D., Brault, S., Gobeil, F., Beauchamp, M.H., Mwaikambo, B., Courtois, Y., Geboes, K., Varma, D.R., Lachapelle, P., Ong, H., Behar-Cohen, F., and Chemtob, S. 2003. Cyclooxygenase-2 in human and experimental ischemic proliferative retinopathy. *Circulation* 108:198-204.
- 2002 **Sennlaub, F.**, Courtois, Y., and Goureau, O. 2002. Inducible nitric oxide synthase mediates retinal apoptosis in ischemic proliferative retinopathy. *J Neurosci* 22:3987-3993.
- 2001 **Sennlaub, F.**, Courtois, Y., and Goureau, O. 2001. Inducible nitric oxide synthase mediates the change from retinal to vitreal neovascularization in ischemic retinopathy. *J Clin Invest* 107:717-725.

