

CURRICULUM VITAE

Name: Dr. Oliver A. Schraidt

EMPLOYMENT

- 02.2018 – present **International Iberian Nanotechnology Laboratory (INL)**. Cryo-EM facility manager.
- 09.2015 – 12.2017 **European Vaccine Initiative (EVI)**, Heidelberg. As a project manager I worked on vaccine related projects, aiming to bridge the translational gap between basic research and vaccine development. The projects ranged from smaller projects with only 3 partner organisations up large scale projects with >20 partners (including academic, industry and regulatory partners) and topics such as Influenza, Malaria, Dengue or *in vitro* consistency testing. While my main tasks thereby lay in coordination, managing and workshop/event organisation, I was also involved in fund-raising and dissemination.
- 10.2011 - 07.2015 **European Molecular Biology Laboratory Heidelberg**, Group of Dr. John Briggs. As an EMBL Interdisciplinary Postdoc I studied in collaboration with different research groups the structure/function relationship of Influenza assembly and budding. For this purpose I develop/employ methods such as cryo-electron microscopy sub-tomogram averaging, modification of Influenza with unnatural amino acids that allows labelling via CLICK chemistry or testing of plastic resin/support film combinations for optimal super-resolution microscopy conditions on electron microscopy samples.
- 07.2011 - 09.2011 **European Molecular Biology Laboratory Grenoble**, Group of Dr. Stephen Cusack. With the goal to transfer practical knowledge about the handling of Influenza in the context of human cells to the EMBL main laboratory in Heidelberg I worked on the transport of the Influenza genome.
- 03.2006 - 10.2010 **PhD-thesis “Structural dissection of the Salmonella typhimurium Type III secretion needle complex” at the Institute of Molecular Biotechnology (IMBA)/ Institute of Molecular Pathology (IMP)**, Group of Dr. Thomas Marlovits. Combining bioengineering with structural approaches (cryo electron microscopy) I studied the assembly and function of the ‘Type III Secretion System’, revealed its structure and supervised three Diploma students and one technician.
- 08.2005 - 10.2005 European Molecular Biology Laboratory, Group of Dr. Thomas Surrey. I screened by Phage-ELISA for tubulin binding VHHs of single domain llama antibodies, characterized these VHHs and fused them to different tags.
- 05.2005 - 08.2005 Department of Genetics, University of Bayreuth, Group of Prof. Christian Lehner. As continuation of my thesis I analysed and quantified the

incorporation of CENP-A and CENP-C into centromeres in post-syncytial cell cycles of *Drosophila*.

EDUCATION

- 10.1999 - 03.2005 **Studied Biochemistry at the University of Bayreuth/Germany**
Diploma in Biochemistry (very good, 1.4): Major in Biochemistry, Biophysical Chemistry, Genetics, Microbiology, and Plant Physiology
- 10.2004 - 03.2005 Diploma thesis "Interactions during the localization of the centromere proteins CID/CENP-A and CENPC" (very good, 1.3) at the Department of Genetics, University of Bayreuth (Prof. C. Lehner).
- 09.2002 - 07.2003 **Studies at the University of California, San Diego** (Education abroad program), (overall GPA of 3.5, two quarters with „Provost's Honors“)
- 07.2001 "Vordiplom"/ Intermediate diploma in Biochemistry at the University of Bayreuth/Germany (very good, 1.26)
- 1990 - 06.1999 Kopernikusschule Freigericht/Germany, bilingual branch; participation in several exchange programs with European countries; "Abitur"/A levels (very good, 1.5)

HONOURS

- 07.2011 – 07.2015 EMBL Interdisciplinary Postdocs fellowship (EIPOD)
- 11.2011 PhD thesis distinguished with the 'Vienna Biocenter PhD Award 2011'
- 2010 PhD work was highlighted as one of the most important discoveries of the IMP by a two page story in the IMP annual report 2010, see page 4-5 (http://www.imp.ac.at/fileadmin/imp/Images/Research/Report_2010/IMP_REPORT_2010.pdf)
- 12.2006 - 03.2009 Boehringer Ingelheim Fonds (BIF) PhD Scholarship
- 09.2002 - 07.2003 Education Abroad Program scholarships covering the tuition fee for studying at UCSD
- 12.2000 - 02.2010 E-fellows.net online scholarship
- 06.1999 Book prize of the German Physical Society (DPG) in recognition of excellent performance in physics

SKILLS

- Languages German (mother tongue), English (fluent, working language for > 9 years), French, Japanese and Portuguese (basic knowledge)
- Computer Skills Microsoft software applications, Linux, scripting, SAP, website maintenance
Image processing: Amira, Chimera, ImageJ, Imagic, Imod, Matlab, Photoshop

Technical Skills

Electron microscopy: >8 years work experience, including microscope alignment and automation of 2D and 3D (tomography) data acquisition. (Polara, Titan Krios, F30, Biotwin, Morgagni, CM200)

Sample Preparation techniques: Negative stain and cryo-sample preparation, high pressure freezing and freeze substitution, plastic embedding and post-staining of samples, thin- and thick-section preparation with room temperature or cryo-microtomes (CEMOVIS), sputter coating for preparation of thin films

Data processing: Structure determination by (cryo)-electron microscopy with single particle and sub-tomogram-averaging methods and in combination with MS; (cryo-)correlative light and electron microscopy (in combination with super-resolution microscopy)

Wet lab: (Membrane)-protein, macromolecular complex and virus purification; chemical modification and bioengineering of proteins/protein-complexes; cell culture work; standard techniques for the work with proteins and DNA

Soft Skills

In the context of the PhD program, BIF scholarship and Postdoc program I participated in several courses focusing on project management, communication, presentation and writing. At EVI I attended courses on project management and finance.

SELECTED PUBLICATIONS

Nikić I, Plass T, Schraidt O, Szymański J, Briggs JA, Schultz C, Lemke EA. Minimal Tags for Rapid Dual-Color Live-Cell Labeling and Super-Resolution Microscopy. *Angew Chem Int Ed Engl*. January 2014

Schraidt O. and Marlovits T.C. Three-Dimensional model of *Salmonella's* needle complex at subnanometer resolution. *Science*, March 2011. (Rated as 'exceptional' by the Faculty of 1000; <http://f1000.com/9179963>)

Schraidt O., Lefebvre M.D., Brunner, M.J., Schmied W.H., Schmidt A., Radics J., Mechtler K., Galan J.E., and Marlovits T.C. Topology and organization of the *Salmonella typhimurium* type III secretion needle complex components. *PLoS Pathog*, April 2010