

Olga Schubert - Curriculum Vitae

Name: Olga Tatjana Schubert
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Education

- Apr. 2010 - current PhD in Molecular Systems Biology, ETH Zurich
Development of mass spectrometric tools to study the proteome of *Mycobacterium tuberculosis*.
Advisor: Prof. Dr. Ruedi Aebersold
- Sep. 2009 - Feb. 2010 Research internship, Mouse Biology Unit of EMBL, Monterotondo, Italy
Investigating circuits underlying anxiety and aggression in mouse models.
Advisor: Prof. Dr. Cornelius Gross
- Sep. 2007 - Mar. 2009 Master of Science ETH in Biology, major in Cell Biology, ETH Zurich
- Master thesis (9 months), Institute of Cell Biology, ETH Zurich
Adaptive systems following the loss of the tumor suppressor PTEN.
Advisor: Prof. Dr. Wilhelm Krek
 - Research project (3 months), Brain Research Institute, Univ. of Zurich
Three markers to identify neural stem and progenitor cells of the adult central nervous system.
Advisor: Dr. Michaela Thallmair
- Oct. 2004 - Jun. 2007 Bachelor of Science ETH in Biology, focus on Chemistry, ETH Zurich
- Aug. 1999 - Jun. 2003 High school, major in Physics and Applied Mathematics, Kreuzlingen
- Aug. 1991 - Jun. 1999 Primary and Secondary school, Kreuzlingen

Publications

- **Schubert, O.T.***, Ludwig C.*, Rosenberger G., Roest H., Gillet, L. and Aebersold R. (2014). Absolute protein concentrations for *Mycobacterium tuberculosis* during dormancy and resuscitation by ALF-SWATH MS. Manuscript in preparation. *Authors contributed equally
- **Schubert, O.T.** and Aebersold R. (2014). Mycobacterium Proteome Mapping. Book chapter in Prokaryotic Systems Biology. Manuscript in preparation.
- Gillet, L.*, Collins, B.C.*, **Schubert, O.T.***, Wolski, W., Rosenberger, G., Navarro, P. and Aebersold, R. (2014). Building high-quality assay libraries for targeted extraction of data independent acquisition mass spectrometry (SWATH-MS) datasets. Manuscript in preparation. *Authors contributed equally
- Roest, H.L., Rosenberger, G., Navarro, P., Gillet, L.C., Miladinovic, S., **Schubert, O.T.**, Wolski, W., Collins, B.C., et al. (2014). A tool for the automated, targeted analysis of data-independent acquisition MS-data: OpenSWATH. Nature Biotechnology, in press.
- Gengenbacher, M., Mouritsen, J., **Schubert, O.T.**, Aebersold, R., Kaufmann, S.H.E. (2014). *Mycobacterium tuberculosis* in the Proteomics Era. Book chapter in Molecular Genetics of Mycobacteria, in press.
- Houghton, J., Cortes, T., **Schubert, O.**, Rose, G., Rodgers, A., De Ste Croix, M., Aebersold, R., Young, D.B., and Arnvig, K.B. (2013). A Small RNA Encoded in the Rv2660c Locus of *Mycobacterium tuberculosis* Is Induced during Starvation and Infection. PLoS ONE 8, e80047.
- Cortes, T., **Schubert, O.T.**, Rose, G., Arnvig, K.B., Comas, I., Aebersold, R., and Young, D.B. (2013). Genome-wide Mapping of Transcriptional Start Sites Defines an Extensive Leaderless Transcriptome in *Mycobacterium tuberculosis*. Cell Reports.
- **Schubert, O.T.**, Mouritsen, J., Ludwig, C., Röst, H.L., Rosenberger, G., Arthur, P.K., Claassen, M., Campbell, D.S., et al. (2013). The Mtb Proteome Library: A Resource of Assays to Quantify the Complete Proteome of *Mycobacterium tuberculosis*. Cell Host Microbe 13, 602-612.
- Cima, I., Schiess, R., Wild, P., Kaelin, M., Schüffler, P., Lange, V., Picotti, P., Ossola, R., Templeton, A., **Schubert, O.**, et al. (2011). Cancer genetics-guided discovery of serum biomarker signatures for diagnosis and prognosis of prostate cancer. Proceedings of the National Academy of Sciences 108, 3342-3347.

Presentations at Scientific Conferences

- EMBO Practical Course on Targeted Proteomics, Barcelona 2014 (invited speaker)
- Society for General Microbiology Irish Division Spring Meeting, Dublin 2014 (invited speaker)
- Targeted Proteomics Course, Seattle 2014 (invited speaker)
- Mycobacteria and Co-Morbidities, Basel 2013 (invited speaker)
- ABSciex Workshop, Saint Malo 2013 (invited speaker)
- European Proteomics Association (EuPA) Conference 2013, Saint Malo 2013 (poster)
- American Society for Mass Spectrometry (ASMS) Conference 2013, Minneapolis 2013 (talk)
- Skyline User Meeting, Minneapolis 2013 (talk)
- Proteomic Forum 2013, Freie Universität, Berlin 2013 (poster)
- SystemTb Annual Conference, Potsdam 2013 (talk and poster)
- Swiss Proteomics Society PhD Symposium, Basel 2012 (talk)
- Tuberculosis 2012, Pasteur Institute, Paris 2012 (talk)

- Keystone Proteomics, Interactomes, Stockholm 2012 (poster)
- SystemTb Annual Conference, Stresa 2012 (talk)
- Human Proteomics Organisation (HUPO) 10th Annual World Congress, Geneva 2011 (poster)
- SystemTb Annual Conference, Prague 2011 (talk and poster, poster price)

Grants and Awards

- Contingency budget of the EU project SystemTb (EUR 43,200): High throughput quantitative proteome analysis of clinical isolates of *Mycobacterium tuberculosis* to link genotype and phenotype. 2012
- Travel grant (USD 1,200), Keystone Conference, Stockholm 2012
- Promedica Foundation Research Grant (CHF 110,000), co-authored: A synthetic peptide library for complete proteome quantification in *Mycobacterium tuberculosis*. 2011
- 1st poster price, SystemTb Conference, Prague 2011

Teaching

Jun. 2013 and Feb. 2014	Initiation, organisation (one out of three main organisers) and teaching of a course in which 30 mass spectrometrists from around the world are trained in the targeted proteomic technique Selected Reaction Monitoring for one week (www.srmcourse.ch)
Nov. 2013	Organisation and teaching of a lecture and a tutorial about Targeted Proteomics by Selected Reaction Monitoring as part of the European Proteomics Association (EuPA) Bioinformatics course
Jun. 2013	Organisation and teaching of a lecture and a tutorial about Targeted Proteomics by Selected Reaction Monitoring, as part of an Advanced Proteomics course (ETH 551-0224-00L)
Feb. 2012 - current	Teaching assistant with special responsibilities for undergraduate practical courses in enzyme kinetics (ETH 551-0102-00P)
Jan. 2011	Introducing high school students to state-of-the-art research in the field of proteomics

Supervision and training

- Dr. Pouya Faridi (guest researcher, 9 months)
- Dr. Patrick K. Arthur (guest researcher, 6 months)
- Vito Dozio (master student, 6 months shared supervision)

Extracurricular Activities

Oct. 2012 - current	Member of the Steering Committee for the institute IT infrastructure
Jan. 2008 - Mar. 2009	Student representative in the Department Conference of the Department of Biology, ETH

Oct. 2006 - Mar. 2009	Student representative in the Teaching Commission of the Department of Biology, ETH
Aug. 2003 - Jan. 2004	Professional fundraising for non-governmental organisations, team leader position with responsibility for eight people
Aug. 1999 - Sep. 2004	Holiday/spare-time jobs (administrative work in a psychiatric clinic, cleaning work, assembly-line work)

Languages

- German: Mother tongue
- English: Proficient (Certificate of Proficiency in English, Cambridge ESOL)
- French: Good knowledge (B1 - B2, acc. to Common European Reference Framework)
- Italian: Basic knowledge (A2, acc. to Common European Reference Framework)
- Spanish: Basic knowledge (A2, acc. to Common European Reference Framework)

Personal Interests

Mountaineering and endurance sports, playing the guitar and singing, travelling

Zurich, January 2014