Michael Jahn

Curriculum vitae

Personal information

Name	Michael Jahn, PhD
Date of birth	Dec 31, 1985
Born in	Dresden, Germany
Current residence	Sturegatan 30, 17231 Sundbyberg, SE
Mobile phone	+46 76 7812578
Email	michael.jahn@scilifelab.se
Current position	PostDoc, Science For Life Laboratory, Stockholm

Awards

Nov 25, 2015 **PhD-Award** 2015 by the Helmholtz-Centre for Environmental Research, Leipzig.

Education

July 10, 2015 **Graduated *Doctor rerum naturalium***, at the University of Leipzig, Germany, with *summa cum laude* (1.0).

2011–2015 **PhD studies**, Group of Flow Cytometry (Prof. Susann Müller), Dept. Environmental Microbiology, Helmholtz-Centre for Environmental Research, Leipzig.
Thesis: 'Characterization of population heterogeneity in a model biotechnological process using *Pseudomonas putida*'.

2005–2011 **Diploma studies, biology**, Dresden University of Technology (TUD), main subjects: genetics, biochemistry, immunology.
Diploma thesis: 'Dynamic mating pheromone gradients for induction of mating projection and fluorescence in yeast', group of Prof Gerhard Rödel, grade 1.2.

1996–2004 **High school**, Romain-Rolland-Gymnasium, Dresden, Abitur with grade 1.6.

1992–1996 **Elementary school**, Dresden.

Work experience

05/2016-04/2018	**Post-Doctoral Research**, Systems biology analysis of cyanobacteria (Prof. P. Hudson), Science For Life Lab, Stockholm.
08-12/2009	**Erasmus internship**, Center of Excellence in Evolutionary Genetics and Physiology (Prof. Nikinmaa), Dept. of Biology, University of Turku, Finland.
2008–2009	**Student assistant**, Institute of Genetics, Dept. of Biology at TUD.
2007–2008	**Student assistant**, Mitteldeutscher Praxisverbund Humangenetik, Dresden.
2004–2005	**Voluntary service 'Freiwilliges Ökologisches Jahr'**, national park Saxon Switzerland, tour guide and education.

Qualifications & skills

Courses	Approved project manager for genetic works, according to German laws (§ 14,15 GenTSV), 2015. Laser scanning microscopy, 1 week intensive course, 2013. Scientific writing, project proposal writing, 2013.
Molecular genetics	Handling of microbes (*E. coli*, *P. putida*, *S. cerevisiae*) Molecular genetics: DNA, RNA, protein extraction and purification Vector design, DNA cloning, recombinant gene expression Droplet Digital PCR, qRT-PCR, gel electrophoresis
High-throughput techniques	Flow cytometry, cell sorting Mass spectrometry, proteomics Metabolic mapping, data mining, visualization Automated microscopic imaging
Software & Programming	Languages: R (advanced), Latex (advanced), Python (beginner) Mass spectrometry: openMS, script-based tools Imaging: CellProfiler, ImageJ, Inkscape, GIMP Flow cytometry: R flow packages, Summit, FlowJo Genome and proteome databases: NCBI, DAVID, KEGG, BioCyc
Other	Driver's license

Languages

German	**Native language**.
English	**Proficient user**, CEF level C1.
Swedish	**Basic user**, CEF level A2.

Publications

1 Karlsen J, Asplund-Samuelsson J, Thomas Q, **Jahn M**, Hudson EP. *Ribosome Profiling of Synechocystis Reveals Altered Ribosome Allocation at Carbon Starvation*. MSystems 3, e00126-18, **2018**.

2 **Jahn M**, Vialas V, Karlsen J, Maddalo G, Edfors F, Forsström B, Uhlén M, Käll L, Hudson EP. *Growth of Cyanobacteria Is Constrained by the Abundance of Light and Carbon Assimilation Proteins*. Cell Reports 25, 478–486.e8., **2018**.

3 Shabestary K, Anfelt J, Ljungqvist E, **Jahn M**, Yao L, Hudson EP. *Targeted Repression of Essential Genes To Arrest Growth and Increase Carbon Partitioning and Biofuel Titers in Cyanobacteria*. ACS Synthetic Biology, 7, 1669–1675, **2018**.

4 **Jahn M**, Vorpahl C, Hübschmann T, Harms H, Müller S. *Copy number variability of expression plasmids determined by cell sorting and Droplet Digital PCR*. Microbial Cell Factories, **2016**.

5 Lindmeyer M, **Jahn M**, Vorpahl C, Müller S, Schmid A, Bühler B. *Variability in subpopulation formation propagates into biocatalytic variability of engineered Pseudomonas putida strains*. Frontiers in microbiology 6, **2015**.

6 Lieder S, **Jahn M**, Koepff J, Müller S, Takors Ralf. *Environmental stress speeds up DNA replication in Pseudomonas putida in chemostat cultivations*. Biotechnology journal, **2015**.

7 **Jahn M**, Günther S, Müller S. *Non-random distribution of macromolecules as driving forces for phenotypic variation*. Current Opinion in Microbiology. 25:49-55, **2015**.

8 Rödiger S, Burdukiewicz M, Blagodatskikh K, **Jahn M**, Schierack P. *R as an environment for reproducible analysis of DNA amplification experiments*. R Journal 7/1:127-150, **2015**.

9 **Jahn M**, Vorpahl C, Türkowsky D, Lindmeyer M, Bühler B, Harms H, Müller S. *Accurate determination of plasmid copy number of flow-sorted cells using droplet digital PCR*. Analytical Chemistry 86:5969-76, **2014**.

10 Lieder S, **Jahn M**, Seifert J, von Bergen M, Müller S, Takors R. *Subpopulation-proteomics reveal growth rate, but not cell cycling, as a major impact on protein composition in* Pseudomonas putida *KT2440*. AMB Express 4:71, **2014**.

11 **Jahn M**, Seifert J, von Bergen M, Schmid A, Bühler B, Müller S. *Subpopulation-proteomics in prokaryotic populations*. Current Opinion in Biotechnology 24:79-87, **2013**.

12 **Jahn M**, Seifert J, Hübschmann T, von Bergen M, Harms H, Müller S. *Comparison of preservation methods for bacterial cells in cytomics and proteomics*. Journal Of Integrated Omics 3:1-9, **2013**.

13 **Jahn M**, Mölle A, Rödel G, Ostermann K. *Temporal and spatial properties of a yeast multi-cellular amplification system based on signal molecule diffusion*. Sensors 13:14511-22, **2013**.

Conference presentations

Oct 24–26, 2018	**4th Applied Synthetic Biology Conference** – 6th Toulouse, France
Jul 20–22, 2015	**Single Cell VI** – 6th International Conference on Analysis of Microbial Cells at the Single Cell Level, Retz / Austria
Oct 15–17, 2014	**DGFZ** – 24th Annual Conference of the German Society for Cytometry, Dresden
Jul 13–16, 2014	**ECB16** – 16th European Congress on Biotechnology, Edinburgh
Mar 06–08, 2013	**RPP7** – 7th European Conference on Recombinant Protein Production, Ulm
Oct 10–12, 2012	**DGFZ** – 22nd Annual Conference of the German Society for Cytometry, Bonn
Jun 23–27, 2012	**CYTO 2012** – 27th Congress of the International Society for Advancement of Cytometry, Leipzig