

# CURRICULUM VITAE – Johannes Wilbertz, PhD

*Cell biologist & microscopist, strong communicator, interdisciplinary mindset, multilingual*

---

20 May 1988 – Nationality: German

29 Avenue Jean Jaures, 67400 Illkirch-Graffenstaden, France

+33 (0)76 650 27 99 – jwilbertz@gmail.com

## RESEARCH & WORK EXPERIENCE

---

### **Project Team Leader** – Since Apr 2020

Ksilink, Strasbourg, France

*Responsible for client contacts & development of imaging-based drug screening approaches in stem cell-based human neurological disease models.*

- Scientific strategy & team management for two projects (Parkinson's disease & Autism)
- Cell culture (DNA/siRNA transfection, disease modelling, fluorescent staining)
- High-throughput screening development (robotic automation, chemical library choice)
- High-content image analysis (CellProfiler, ImageJ, Python for data analysis)

### **Industry Postdoc** – Jan 2019 to Mar 2020

Sanofi-Aventis R&D, Strasbourg, France

*Established a time-resolved FRET assay for high-throughput screening of modifiers of Huntingtin flexibility, the causative protein in Huntington's disease (supervisor: Dr. Barbara Calamini)*

- Optimization of time-resolved FRET assay for high-throughput screening
- Biochemistry (western blotting, DNA/siRNA transfection)
- Cell culture (primary and immortalized patient cells)
- Extensive and frequent data presentation in English and French

### **PhD Research** – Sep 2013 to Aug 2018

Friedrich Miescher Institute for Biomedical Research (Novartis), Basel, Switzerland

*Development of novel microscopy techniques to visualize single mRNA molecules in living human cells to study the cell's response to biochemical stress (supervisor: Dr. Jeffrey Chao)*

- Microscopy techniques (single RNA visualization (fixed/live), immunofluorescence)
- Image analysis (ImageJ macro programming, KNIME, basic Python, basic MATLAB)
- Cell culture (cell line generation, DNA/siRNA transfection, viral infection, FACS)
- Biochemistry (polysome profiling, bioluminescence assays, cell viability assays)
- Molecular biology (DNA cloning, lentiviral production, RNAi)
- Interdisciplinary teamwork, driving own scientific project, frustration tolerance

### **Master Research 2** – Nov 2012 to May 2013

Department of Biological Chemistry & Molecular Pharmacology, Harvard Medical School, Boston, USA

*In vitro imaging of DNA interacting proteins responsible for UV-induced damage repair (supervisor: Dr. Joseph Loparo)*

- Image analysis (MATLAB, ImageJ)
- Biochemistry (biotin-streptavidin chemistry, DNA isotope labelling, Southern blotting)

**Master Research 1** – Sep 2011 to Apr 2012

Department of Molecular Microbiology, University of Groningen, The Netherlands

*Biochemical/biophysical characterization of protein secretion in Staphylococcus aureus (supervisor: Prof. Dr. Arnold Driessen)*

- Fluorescence cross correlation spectroscopy (FCCS)
- Biochemistry (protein purification techniques, fluorescent labelling, Western blotting)
- Highly interdisciplinary project, communication in Dutch, German, English

**Civil Service** – Jul 2007 to May 2008

Alexianer Hospital for Psychiatry and Neurology, Aachen, Germany

*Caring for patients affected by diseases of the depression, schizophrenic or bipolar spectrum*

**EDUCATION**

---

**PhD Cell Biology** – Jun 2018

Friedrich Miescher Institute for Biomedical Research & University of Basel, Switzerland

**MSc Molecular Biology and Biotechnology** – Aug 2013

University of Groningen, The Netherlands

**BSc Medical Biology** – Aug 2011

Radboud University Nijmegen, The Netherlands

**SELECTED PUBLICATIONS**

---

Vuidel A, Cousin L, Weykopf B, Haupt S, Hanifehlou Z, Wiest-Daesslé N, Segschneider M, Peitz M, Ogier A, Brino L, Brüstle O, Sommer P, **Wilbertz JH**. Machine learning-aided multidimensional phenotyping of Parkinson's disease patient stem cell-derived midbrain dopaminergic neurons. **Stem Cell Reports**. 2022

**Wilbertz JH**, Frappier J, Muller S, Gratzer S, Englaro W, Stanek LM, Calamini B. Time-resolved FRET screening identifies small molecular modifiers of mutant Huntingtin conformational inflexibility in patient-derived cells. **SLAS Discovery**. 2021

Ross NT, Lohmann F, [...], **Wilbertz JH**, [...], Chao JA, Beckwith REJ. CPSF3-dependent pre-mRNA processing as a druggable node in AML and Ewing's sarcoma. **Nature Chemical Biology**. 2019

**Wilbertz JH**, Voigt F, Horvathova I, Roth G, Zhan Y, Chao JA. Single-molecule imaging of mRNA localization and regulation during the integrated stress response. **Molecular Cell**. 2019

Halstead JM\*, **Wilbertz JH\***, Wippich F, Lionnet T, Ephrussi A, Chao JA. TRICK: A Single-Molecule Method for Imaging the First Round of Translation in Living Cells and Animals. **Methods in Enzymology**. 2016 \* denotes co-first authors

Halstead JM\*, Lionnet T\*, **Wilbertz JH\***, Wippich F\*, Ephrussi A, Singer RH, Chao JA. An RNA biosensor for imaging the first round of translation from single cells to living animals. **Science**. 2015 \* denotes co-first authors

## MANAGEMENT & COMMUNICATION ACTIVITIES

---

**Local chairman think-tank “reatch”** (research & technology in Switzerland; [www.reatch.ch](http://www.reatch.ch)) – Jan 2016 to Dec 2017

*Responsible for science communication to the public through panel discussions and workshops, main organizer of the event “Academic & Industrial Partnership”*

**PhD student representative**, Friedrich Miescher Institute for Biomedical Research – Jun 2014 to Dec 2017

*Funding acquisition/invitation of speakers for conferences in Cambridge, UK and Lisbon, Portugal*

**Global Perspectives Program**, University of Basel – Jan 2014 to Jul 2014

*Managed project on the future of higher education (digital technology, new learning strategies). Presentation of project results at the Swiss embassy in Washington DC, USA.*

**Fame Lab, Zürich & Science Slam**, Basel – Feb 2014 to Oct 2014

*Short, creative science presentation to non-expert audiences.*

## AWARDS

---

**Sanofi R&D Science Awards 2019 – Innovative Postdoctoral Research** (1<sup>st</sup> place), Oct 2019

**Human Frontier Science Program (HFSP) postdoc fellowship** (gracefully declined), Mar 2019

**Swiss Science Foundation postdoc fellowship** (gracefully declined), Nov 2018

## LANGUAGES

---

German (native), English (fluent), Dutch (fluent), French (speaking: fluent, writing: intermediate)

## REFERENCES

---

**Dr. Barbara Calamini**

*Postdoc supervisor*

Eli Lilly and Company  
450 Kendall Street  
Cambridge, MA 02142  
USA

+1 (0)857 259 0350 (mobile)  
[calamini\\_barbara@lilly.com](mailto:calamini_barbara@lilly.com)

**Dr. Jeffrey Chao**

*PhD supervisor*

Friedrich Miescher Institute  
for Biomedical Research  
Maulbeerstrasse 66  
4058 Basel  
Switzerland

+41 (0)61 69 76672  
[jeffrey.chao@fmi.ch](mailto:jeffrey.chao@fmi.ch)