Sebastian Josef Maerkl

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Education

California Institute of Technology — Pasadena, CA
Doctor of Philosophy, 2008
Biochemistry and Molecular Biophysics Option

Fairleigh Dickinson University — Madison, NJ
Bachelor of Science, Biology, cum laude, 2001
Bachelor of Science, Chemistry, with Honors, cum laude, 2001

Employment History

École Polytechnique Fédérale de Lausanne — Lausanne, Switzerland
Tenured Associate Professor — 2015 - present
Institute of Bioengineering, School of Engineering

École Polytechnique Fédérale de Lausanne — Lausanne, Switzerland
Tenure Track Assistant Professor — 2008 - 2015
Institute of Bioengineering, School of Engineering

Howard Hughes Medical Institute — Stanford, CA
Visiting Graduate Student — 2005 - 2008
Department of Bioengineering, Stanford University

California Institute of Technology — Pasadena, CA
Graduate Student — 2001 - 2008
Biochemistry and Molecular Biophysics Option

California Institute of Technology — Pasadena, CA
Co-Director, Microfluidic Foundry — 2003 - 2005

BASF Bioresearch Corporation — Worcester, MA
Intern — Summer, 1999 and 2000

Peer Reviewed Publications

64. Lee P.W., Mottaghi S.S., Lugnier M.G., and Maerkl S.J., "A T7 RNAP regulatory toolbox for cell-free network engineering and biosensing applications." **Nature Communications**, DOI: 10.1038/s41467-026-73811-9 (2026). paper link

63. Mottaghi S.S. and Maerkl S.J., "PURE makes PURE: reconstitution of the PURE cell-free system from self-synthesized non-ribosomal proteins." **Nature Communications**, DOI: 10.1038/s41467-026-73337-0 (2026). paper link

62. Perez-Saez J., Bellon M., Lessler J., Berthelot J., Hodcroft E.B., Michielin G., Pennacchio F., Lamour J., Laubscher F., L'Huillier A.G., Posfay-Barbe K.M., Maerkl S.J., Guessous I., Azman A.S., Eckerle I., Stringhini S.

and Lorthe E. On behalf of the SEROCoV-Schools study group, "Evolving infectious disease dynamics shape school-based intervention effectiveness", **Nature Communications**, DOI: 10.1038/s41467-025-61925-5 (2025) paper link

61. Li F., Baranwal A.K. and Maerkl S.J., "Continuous in situ synthesis of a complete set of tRNAs sustains steady-state translation in a recombinant cell-free system", **Nature Communications**, DOI: 10.1038/s41467-025-61671-8 (2025) paper link

60. Marchand A., Buckley S., Schneuing A., Pacesa M., Gainza P., Elizarova E., Neeser R.M., Lee P., Reymond L., Elia M., Scheller L., Georgeon S., Schmidt J., Schwaller P., Maerkl S.J., Bronstein M, and Correia B.E., "Targeting protein–ligand neosurfaces with a generalizable deep learning tool", **Nature**, DOI: 10.1038/s41586-024-08435-4 (2025) paper link

59. Julia L.R., Grasemann L., Stellacci F. and Maerkl S.J., "Long-Term Protein Synthesis with PURE in a Mesoscale Dialysis System", **ACS Synthetic Biology**, DOI: 10.1021/acssynbio.4c00618 (2025) paper link

58. Julia L.R., Maerkl S.J. and Stellacci F., "Nature-Inspired Recycling of a Protein Mixture into a Green Fluorescent Protein-based hydrogel", **RSC Sustainability**, DOI: 10.1039/D4SU00212A (2024) paper link

57. Ganesh R.B. and Maerkl S.J., "Towards self-regeneration: exploring the limits of protein synthesis in the PURE cell-free transcription-translation system", **ACS Synthetic Biology**, DOI:10.1021/acssynbio.4c00304 (2024) paper link

56. Grasemann L., Pizarro P.T., and Maerkl S.J., "C2CAplus: A One-Pot Isothermal Circle-to-Circle DNA Amplification System", **ACS Synthetic Biology**, DOI: 10.1021/acssynbio.3c00390 (2023) paper link

55. Selz J., Adam N.R., Magrini C.E.M., Montandon F.M., Buerki S., and Maerkl S.J., "A field-capable rapid plant DNA extraction protocol using microneedle patches for botanical survey and monitoring", **Applications in Plant Sciences**, DOI: 10.1002/aps3.11529 (2023) paper link

54. Michielin G., Arefi F., Puhach O., Bellon M., Sattonnet P., L'Huillier A., Eckerle I., Meyer B., and Maerkl S.J., "Clinical sensitivity and specificity of a high-throughput microfluidic nano-immunoassay combined with capillary blood microsampling for the identification of anti-SARS-CoV-2 Spike IgG serostatus.", **PLoS One**, DOI: 10.1371/journal.pone.0283149 (2023) paper link

53. Yip M.H., Cheng S., Olson E.J., Crone M., and Maerkl S.J., "Perfect adaptation achieved by transport limitations governs the inorganic phosphate response in S. cerevisiae.", **PNAS**, DOI: 10.1073/pnas.2212151120 (2023) paper link

52. Michielin G. and Maerkl S.J., "Direct encapsulation of biomolecules in semi-permeable microcapsules produced with double-emulsions.", **Scientific Reports**, DOI: 10.1038/s41598-022-25895-8 (2022) paper link

51. Lavickova B., Grasemann L. and Maerkl S.J., "Improved cell-free transcription-translation reactions in microfluidic chemostats augmented with hydrogel membranes for continuous small molecule dialysis", **ACS Synthetic Biology**, DOI: 10.1021/acssynbio.2c00453 (2022) paper link

50. Shahein A., Lopez-Malo M, Istomin I., Olson E.J., Cheng S., and Maerkl S.J., "Systematic analysis of low-affinity transcription factor binding site clusters in vitro and in vivo establishes their functional relevance", **Nature Communications**, DOI: 10.1038/s41467-022-32971-0 (2022) paper link

49. Lorthe E., Bellon M., Michielin G., Berthelot J., Zaballa M., Pennacchio F., Bekliz M., Laubscher F., Arefi F., Perez-Saez J., Azman A.S., L'Huillier A.G., Posfay-Barbe K.M., Kaiser L., Guessous I., Maerkl S.J., Eckerle I., and Stringhini S., SEROCoV-Schools Study Group, "Epidemiological, virological and serological investigation into a SARS-CoV-2 outbreak (Alpha variant) in a primary school in Geneva, Switzerland: a prospective longitudinal study.", **PLoS One**, DOI: 10.1371/journal.pone.0272663 (2022) paper link

48. Tischler J., Swank S., Hsiung H., Vianello S,. Lutolf M.P., and Maerkl S.J., "An automated do-it-yourself system for dynamic stem cell and organoid culture in standard multi-well plates", **Cell Reports Methods**, DOI: 10.1016/j.crmeth.2022.100244 (2022) paper link

47. Lorthe E., Bellon M., Berthelot J., Michielin G., L'Huillier A.G., Posfaye-Barbe K.M., Azman A.S., Guessous I., Maerkl S.J., Eckerle I., and Stringhini S., "Epidemiological investigation of a SARS-CoV-2 Omicron variant outbreak in a primary school", **The Lancet Infectious Diseases**, DOI:10.1016/S1473-3099(22)00267-5 (2022) paper link

46. Jammes F., Schmidt J., Coukos G., and Maerkl S.J., "High-throughput single-cell TCR - pMHC dissociation rate measurements performed by an autonomous microfluidic cellular processing unit", **ACS Sensors**, DOI: 10.1021/acssensors.1c01935 (2022) paper link

45. Giaveri S., Schmitt A.M., Julia L. R., Murello A., Menin L., Ortiz D., Patiny L., Bolisetty S., Mezzenga R., Maerkl S.J., and Stellacci F., "Nature-inspired Circular-economy Recycling (NaCRe) for Proteins: Proof of Concept", **Advanced Materials**, DOI: 10.1002/adma.202104581 (2021) paper link

44. Grasemann L.*, Lavickova B.*, Elizondo-Cantú M.C., and Maerkl S.J., "OnePot PURE Cell-Free System", **JoVE**, DOI: 10.3791/62625 (2021) paper link

43. Swank Z., Michielin G., Yip H.M., Cohen P., Andrey D.O., Vuilleumier N., Kaiser L., Eckerle I., Meyer B., and Maerkl S.J., "A high-throughput microfluidic nano-immunoassay for detecting anti-SARS-CoV-2 antibodies in serum or ultra-low volume dried blood samples", **PNAS**, DOI: 10.1073/pnas.2025289118 (2021) paper link

42. Swank Z. and Maerkl S.J. "CFPU: a cell-free processing unit for high-throughput, automated in vitro circuit characterization", **BioDesign Research**, DOI: 10.34133/2021/2968181 (2021) paper link

41. Lavickova B., Laohakunakorn N., and Maerkl S.J., "A partially self-regenerating synthetic cell", **Nature Communications**, DOI: 10.1101/2020.07.03.185900 (2020) paper link

40. Bheda P., Aguilar-Gomez D., Becker N.B., Becker J., Stravrou E., Kukhtevich I., Höfer T., Maerkl S., Charvin G., Marr C.,Kirmizis A. and Schneider R., "Single-cell tracing dissects maintenance and inheritance of transcriptional memory", **Molecular Cell**, DOI: 10.1016/j.molcel.2020.04.016 (2020) paper link

39. Wan X., Volpetti F., Petrova E., French C., Maerkl S.J. and Wang B., "Cascaded signal amplifying gene circuits enable ultrasensitive cellular sensors for arsenic and mercury", **Nature Chemical Biology**, DOI: 10.1038/s41589-019-0244-3 (2019) paper link

38. van der Linden A., Yelleswarapu M., Pieters P.A., Swank Z., Huck W.T.S., Maerkl S.J. and de Greef T.F.A., "A Multilayer Microfluidic Platform for the Conduction of Prolonged Cell-free Gene Expression", **JoVE**, DOI:10.3791/59655 (2019) paper link

37. Swank Z.*, Laohakunakorn N.* and Maerkl S.J., "Cell-free gene regulatory network engineering with synthetic transcription factors", **PNAS**, DOI: 10.1073/pnas.1816591116 (2019) paper link

36. Lavickova B. and Maerkl S.J., "A simple, robust, and low-cost method to produce the PURE cell - free system.", **ACS Synthetic Biology**, DOI: 10.1021/acssynbio.8b00427 (2019) paper link

35. Chang J., Swank Z., Keiser O., Maerkl S.J. and Amstad E., "Microfluidic device for on-chip mixing and encapsulation of lysates", **Scientific Reports**, DOI: 10.1038/s41598-018-26542-x (2018) paper link

34. Woodruff K. and Maerkl S.J., "A microfluidic module for real-time generation of complex multi-molecule temporal concentration profiles.", **Analytical Chemistry**, DOI: 10.1021/acs.analchem.7b04099 (2017) paper link

33. Volpetti F., Petrova E., and Maerkl S.J., "A microfluidic biodisplay.", **ACS Synthetic Biology**, DOI: 10.1021/acssynbio.7b00088 (2017) paper link

32. Bulushev R.D., Mrion S., Petrova K., James S.D., Maerkl S.J., and Radenovic A., "Single Molecule Localisation and Discrimination of DNA-Protein Complexes by Controlled Translocation Through Nanocapillaries.", **Nano Letters**, DOI: 10.1021/acs.nanolett.6b04165 (2016) paper link

31. De Maddalena L.L.,Niederholtmeyer H.,Turtola M.,Swank Z., Belogurov G.A., and Maerkl S.J.,"GreA and GreB enhance Escherichia coli RNA polymerase transcription rate in a reconstituted transcription-translation system.", **ACS Synthetic Biology**, DOI: 10.1021/acssynbio.6b00017 (2016) paper link

30. Tatarova Z., Abbuehl J.P., Maerkl S.J., and Huelsken J., "Microfluidic co-culture platform to quantify chemotaxis of primary stem cells" **LOC**, DOI: 10.1039/C6LC00236F (2016) paper link.

29. Woodruff K. and Maerkl S.J., "A High-Throughput Microfluidic Platform for Mammalian Cell Transfection and Culturing" **Scientific Reports**, DOI: 10.1038/srep23937 (2016) paper link.

28. Piraino F.*, Volpetti F.*, Watson C., and Maerkl S.J., "A Digital-Analog Microfluidic Platform for Patient-Centric Multiplexed Biomarker Diagnostics of Ultra-Low Volume Samples", **ACS Nano**, DOI: 10.1021/acsnano.5b07939 (2016) paper link.

27. Blackburn M.C.,Petrova E.,Correia B.E., and Maerkl S.J.,"Integrating Gene Synthesis and Microfluidic Protein Analysis for Rapid Protein Engineering.", **Nucleic Acids Research**, DOI: 10.1093/nar/gkv1497 (2015) paper link

26. Niederholtmeyer H.*,Sun Z.*,Hori Y.,Yeung E.,Verpoorte A., Murray R.M. , and Maerkl S.J. ,"Rapid cell-free forward engineering of novel genetic ring oscillators.", **eLife**, DOI:10.7554/eLife.09771 (2015) paper link

25. Volpetti F., Garcia-Cordero J.L., and Maerkl S.J., "A microfluidic platform for high-throughput multiplexed protein quantitation." **PLoS One**, DOI: 10.1371/journal.pone.0117744 (2015) paper link

24. Knight B., Kubik S., Ghosh B., Bruzzone M.J., Geertz M., Martin V., Denervaud N., Jacquet P., Ozkan B., Rougemont J., Maerkl S.J., Naef F., and Shore D., "Two distinct promoter architectures centered on dynamic nucleosomes control ribosomal protein gene transcription" **Genes & Development**, DOI: 10.1101/gad.244434.114 (2014) paper link

23. Acimovic S.S., Ortega M.A., Sanz V., Berthelot J., Garcia-Cordero J.L., Renger J., Maerkl S.J., Kreuzer M., and Quidant R. "LSPR Chip for Parallel, Rapid, and Sensitive Detection of Cancer Markers in Serum." **Nano Letters**, DOI:10.1021/nl500574n (2014) paper link

22. Nobs J.B. and Maerkl S.J. "Long-term single cell analysis of S. pombe on a microfluidic microchemostat array." **PLoS One**, DOI: 10.1371/journal.pone.0093466 (2014) paper link

21. Garcia-Cordero J.L. and Maerkl S.J. "A 1,024-sample serum anlyzer chip for cancer diagnostics." **Lab on a Chip**, DOI: 10.1039/C3LC51153G (2013) paper link

20. Niederholtmeyer H., Stepanova V., and Maerkl S.J. "Implementation of cell-free biological networks at steady-state." **PNAS**, DOI: 10.1073/pnas.1311166110 (2013) paper link

19. Denervaud N., Becker J., Delgado-Gonzalo R., Damay P., Rajkumar A.S., Unser M., Shore D., Naef F. and Maerkl S.J. "A chemostat array enables the spatio-temporal analysis of the yeast proteome." **PNAS**, DOI: 10.1073/pnas.1308265110 (2013) paper link

18. Rajkumar A.S., Denervaud N., and Maerkl S.J. "Mapping the fine structure of a eukaryotic promoter input-output function." **Nature Genetics**, DOI:10.1038/ng.2729 (2013) paper link

17. Woodruff K., Fidalgo L.M., Gobaa S., Lutolf M.P., and Maerkl S.J. "Live Mammalian Cell Arrays." **Nature Methods**, DOI:10.1038/nmeth.2473 (2013) paper link

16. Garcia-Cordero J.L., Nembrini C., Stano A., Hubbell J.A., and Maerkl S.J. "A high-throughput nanoimunoassay chip applied to large-scale vaccine adjuvant screening." **Integrative Biology**, DOI: 10.1039/C3IB20263A (2013) paper link

15. Niederholtmeyer H. and Maerkl S.J. "Real-time mRNA measurement during an in vitro transcription and translation reaction using binary probes." **ACS Synthetic Biology**, DOI:10.1021/sb300104f (2012) paper link

*these authors contributed equally

14. Rockel S., Hens K., Geertz M., Deplancke B. and Maerkl S.J. "iSLIM: a comprehensive approach to mapping and characterizing gene regulatory networks." **Nucleic Acids Research**, DOI:10.1093/nar/gks1323 (2012) paper link

13. Garcia-Cordero J.L. and Maerkl S.J. "Multiplexed surface micropatterning of proteins with a pressure-modulated microfluidic button-membrane." **Chem. Commun.**, DOI:10.1039/C2CC37740C (2012) paper link

12. Geertz M., Shore D., and Maerkl S.J. "Massively parallel measurements of biomolecular interaction kinetics on a microfluidic device." **PNAS**, DOI:10.1073/pnas.1206011109 (2012) paper link

11. Schroeter C., Ares S., Morelli L.G., Isakova A., Hens K.J.I., Gajewski M., Juelicher F., Maerkl S.J., Deplancke B. and Oates A. C. "Ubiquitous dimerization and selective DNA binding determine the dynamics of the zebrafish segmentation clock's core circuit.", **PLoS Biology**, 10(7): e1001364 (2012) paper link

10. Rajkumar A.S. and Maerkl S.J., "Rapid Synthesis Of Defined Eukaryotic Promoter Libraries.", **ACS Synthetic Biology**, DOI:10.1021/sb300045j (2012) paper link

9. Schultzaberger R.K., Maerkl S.J., Kirsch J.F. and M.B. Eisen "Probing the Informational and Regulatory Plasticity of a Transcription Factor DNA-Binding Domain.", **PLoS Genetics, 8(3)**: e1002614 (2012) paper link

8. He B., Holloway A., Maerkl S.J. and Kreitman M., "Does positive selection drive transcription factor binding site turnover? A test with Drosophila cis-regulatory modules.", **PLoS Genetics**, e1002053 (2011) paper link

7. Fidalgo L.M. and Maerkl S.J., "A software–programmable microfluidic device for automated biology.", **Lab on a Chip, 11(9)**, 1612-9 (2011) paper link

6. Maerkl S.J. and Quake S.R. "Experimental determination of the evolvability of a helix-loop-helix transcription factor.", **PNAS, 106**, 18650-5 (2009) paper link

5. Huang L, Maerkl S.J., and Martin O.J., "Integration of plasmonic trapping in a microfluidic environment.", **Optics Express, 17**, 6018-24, (2009) paper link

4. Gerber D, Maerkl S.J. and Quake S.R."An in vitro microfluidic approach to generating protein interaction networks", **Nature Methods, 6**, 71-4 (2009) paper link

3. Einav S., Gerber D., Bryson P., Sklan E.H., Elazar M., Maerkl S.J., Glenn J.S. and Quake S.R.,"Pharmacological Inhibitors of a New Hepatitis C Target Discovered by Microfluidic Affinity Analysis", **Nature Biotechnology, 26**, 1019-27, (2008) paper link

2. Maerkl S.J. and Quake S.R.,"A Systems Approach to Measuring the Binding Energy Landscapes of Transcription Factors", **Science, 315,** 233-7 (2007). Featured in: Scientific American, Chemical & Engineering News, HHMI News, Nature Methods. paper link

1. Thorsen T., Maerkl S.J. and Quake S.R.,"Microfluidic Large Scale Integration",**Science, 298,** 580-4 (2002) paper link

Reviews, and Book Chapters (peer-reviewed)

16. Baranwal A.K. and Maerkl S.J., "Microfluidics meets cell-free systems: from molecular engineering to synthetic cells", **Current Opinion in Biotechnology**, DOI: 10.1016/j.copbio.2025.103384 (2025) paper link

15. Lee P.W. and Maerkl S.J., "Regulatory Components for Bacterial Cell-Free Systems Engineering", **ACS Synthetic Biology**, DOI: 10.1021/acssynbio.4c00574 (2024) paper link

14. Baranwal A.K. and Maerkl S.J., "A comprehensive review of microfluidic approaches in cell-free synthetic biology", **Frontiers in Synthetic Biology**, DOI: 10.3389/fsybi.2024.1397533 (2024) paper link

13. Maerkl S.J., "On biochemical constructors and synthetic cells", **Interface Focus**, DOI: 10.1098/rsfs.2023.0014 (2023) paper link

12. Ganesh R.B., and Maerkl S.J., "Biochemistry of aminoacyl tRNA synthetase and tRNAs and their engineering for cell-free and synthetic cell applications", **Frontiers in Biotechnology and Bioengineering**, DOI: tbd (2022) paper link

11. Laohakunakorn N., Lavickova B., Swank Z., Laurent J., and Maerkl S.J., "Steady-state cell-free gene expression with microfluidic chemostats.", **Methods in Molecular Biology**, DOI: 10.1007/978-1-0716-1032-9-9 (2021) paper link

10. Laohakunakorn N., Grasemann L., Lavickova B., Michielin G., Shahein A., Swank Z., and Maerkl S.J., "Bottom-up construction of complex biological systems with cell-free synthetic biology." **Frontiers in Biotechnology and Bioengineering**, DOI: 10.3389/fbioe.2020.00213 (2020) paper link

9. Jammes F. and Maerkl S.J., "How single-cell immunology is benefiting from microfluidic technologies." **Microsytems and Nanoengineering**, DOI: 10.5281/zenodo.3529331 (2020) paper link

8. Garcia-Cordero J.L. and Maerkl S.J., "Microfluidic systems for cancer diagnostics.", **Current Opinion in Biotechnology**, DOI: 10.1016/j.copbio.2019.11.022 (2019) paper link

7. Woodruff K. and Maerkl S.J., "Microfluidic Transfection for High-Throughput Mammalian Protein Expression", **Methods in Molecular Biology**, DOI: 10.1007/978-1-4939-8730-6_13 (2018) paper link

6. Garcia-Cordero J.L. and Maerkl S.J., "Mechanically Induced Trapping of Molecular Interactions and Its Applications.", **Journal of Laboratory Automation,** DOI: 10.1177/2211068215578586 (2014). paper link

5. Maerkl S.J., "Next generation microfluidic platforms for high-throughput protein biochemistry.", **Current Opinion in Biotechnology, 22(1),** 59-65 (2011). paper link

4. Geertz M. and Maerkl S.J., "Experimental strategies for studying transcription factor–DNA binding specificities.", **Briefings in Functional Genomics, 9(5-6),**362-73 (2010). paper link

3. Maerkl S.J., "Integration column: Microfluidic high-throughput screening.", **Integrative Biology, 1(1),** 19-29 (2009). paper link

2. Geertz M., Rockel S., and Maerkl S.J., "A high-throughput microfluidic method for generating and characterizing transcription factor mutant libraries.", **Methods in Molecular Biology, 813**, 107-23 (2012). paper link

1. Rockel S., Geertz M., and Maerkl S.J., "MITOMI: A microfluidic platform for *in vitro* characterization of transcription factor–DNA interactions.", **Methods in Molecular Biology, 786**, 97-114 (2012). paper link

Patents

8. Lee P.W., Maerkl S.J., Saeed M.S., "In-vitro analyte detection", EP Patent Application Nr. 25183453.7

7. Maerkl S.J., Tischler J., "System for automated cell culture.", EP Patent Application Nr 22173320.7

6. Maerkl S.J., Piraino F., Volpetti F., "A system, device and method for multiplexed biomarker diagnostics of ultra-low volume whole blood samples", US Provisional Patent Application no. 62/267,959.

5. Maerkl S.J. and Garcia-Cordero J.L., "A High-throughput Nanoimmunoassay Chip.", WO 2014/060869 A1.

4. Fidalgo L.M. and Maerkl S.J., "A programmable, universally applicable microfluidic device platform.", patent application number EP10151515.3.

3. Maerkl S.J. and Quake S.R., "Programming Microfluidic Devices with Molecular Information", # 60/762,344.

2. Maerkl S.J. and Quake S.R., "Mechanically Induced Trapping of Molecular Interactions", US 9,329,179 B2.

1. Maerkl S.J., Thorsen T., Bao X., Quake S.R. and Studer V., "Microfluidic Large Scale Integration", # WO2004 028955.

Awards

2019 iGEM Grand Prize Winner (overgrad)

2016 ERC Consolidator Grant

2015 HFSP Program Grant

2012 Prix SSV - Ambition: EPFL prize for dedication to teaching and promotion of EPFL students and the school at large.

2008 Demetriades-Tsafka-Kokkalis Prize in Biotechnology or Related Fields: The prize honors annually the best Caltech Ph.D. thesis in the given category.

2005 1^{st} place Innovator's Challenge. Category: Biotechnology. The I-Challenge is a joint technology contest amongst Stanford University, UC Berkeley and the California Institute of Technology.

Professional Activities (external)

2023, Member, Organizing Committee, 2023 Cell-free Systems Conference, USA
2022 - present, Member, Research Grant Review Committee, HFSP
2022 - 2023, Chair, BIIE Scientific Planning Challenge Committee, Fondation Botnar
2022, Consultant, L.E.K. Consulting
2021, Consultant, Quinn Emanuel
2020 - 2024, Consultant, Deep Science Fund - Intellectual Ventures
2020, Founding and Scientific Advisor: Adaptyv Biosystems
2019 - 2023, Review Committee Member, Botnar Research Center for Child Health
2016, Synthetic and Systems Biology Search Committee, Istituto Italiano di Tecnologia, Italy
2015, Agora Lab and Facilities Design Team, Swiss Cancer Center
2015, Synthetic Biology Search Committee, UNIL
2014 - 2015, Mentor for "Mentoring Deutschschweiz"
2008 - 2012, Executive Board Member, Swiss Society of Biomedical Engineering (SSBE)

EPFL Committees

2022 - 2024, Member, Chemistry/Bioengineering Faculty Search Committee, EPFL
2021 - 2024, Member, ORD ETH-ORD Expert Group for Open Research Practices, ETH
2020 - present, EDBB Doctoral Program Vice-Director, EPFL
2020-2021, Promotion Committee Chair, EPFL
2020 - 2024, MAKE GenoRobotics, Lead Faculty Advisor, EPFL
2018, Student Kreativity (SKIL) Task Force Committee, EPFL
2016, Bioengineering Faculty Search Committee, EPFL
2015 - 2017, "Future Leaders in Bioengineering" Award Committee, Bioengineering EPFL
2014, Member, Immunoengineering Search Committee, STI EPFL
2010, CMI/CMI+ Committee, STI EPFL
2010 - present, EDBB Doctoral Program Committee Member, EPFL
2009, Bureau de Recherche, STI EPFL
2008 - 2009, BioMEMS Search Committee, IBI EPFL
2008, BioE Curriculum Committee, IBI EPFL

Invited Conference Talks

74 Invited Conference Talks

2026 From small steps to giant leaps: Microengineering for health impact, Collegium Helveticum, Switzerland.

2024 Biosensing 2024, Sitges, Spain. (**Plenary**)

2023 Physical Biology of the Cell Conference, Paros, Greece.

2023 EPFL MicroNanoFabrication Annual Review Meeting, Lausanne, Switzerland.

2023 Swiss - UK SynBio Meeting, Lausanne, Switzerland.

2023 SynCell 2023, Minnesota, USA. (**Keynote**)

2023 Symposium on Synthetic Biology, TU Darmstadt, Germany.

2022 Royal Society Discussion Meeting on Artificial Cells, London, Great Britain.
2022 Microfluidics applications: from research to drug discovery, IMS Strasbourg, France.
2022 microTAs 2022, Hangzhou, China. (**Keynote**)
2022 Swiss Society for Microbiology Annual Meeting, Lausanne, Switzerland. (given by Post-doc: Greg Michielin)
2022 EMBL Conference: Microfluidics 2022, Heidelberg, Germany.
2021 124th Titisee Conference "Life 2.0: From designing the molecules of life to designing life", Titisee, Germany.
2021 Medica LABMED Forum, Duesseldorf, Germany. (given by Post-doc: Greg Michielin)
2021 NRP 78 Programme Conference, Switzerland.
2019 Cell-free Systems Conference, Boston, USA.
2019 Symposium on Synthetic and Systems Biology, Bordeaux, France. (**Keynote**)
2019 2nd Synthetic Biology UK Congress, London, UK. (**Keynote**)
2019 SynCell2019: Defining the Challenges, Madrid, Spain.
2019 NII Shonan Meeting on "Formal methods for the synthesis of biomolecular circuits", Shonan, Japan.
2019 IUPAC 2019, Paris, France.
2018 Key Challenges in Biophysics, Kloster Seeon, Germany.
2017 EPFL-ETHZ Summer School: Shaping the Future of Bioengineering, Davos, Switzerland (co-organizer).
2017 Open Plant Forum, University of Cambridge, England.
2017 HFSP Meeting, Lisbon, Portugal.
2017 Microfluidic Compartmentalization Workshop (OIST), Okinawa, Japan.
2017 1st European Congress on Cell-Free Synthetic Biology, Ascona, Switzerland (co-organizer).
2016 Frontiers in NanoBioEngineering and Medicine, EPFL, Switzerland.
2016 μTAS, Dublin, Ireland
2016 All SystemsX.ch Day, Bern, Switzerland
2016 Prosense Winter School, EPFL, Switzerland.
2015 Microfluidics Congress, London, UK.
2015 EMBL Symposium: Biological Oscillators: Design, Mechanism, Function, Heidelberg, Germany.
2015 Dagstuhl Seminar 15352, Dagstuhl, Germany.
2015 EPFL-ETHZ joint Summer School in Translational Biology, Interlaken, Switzerland.
2015 VIB Conference: Next-Generation Antibodies and Protein Analysis: Tools and Technologies, Gent, Belgium.
2015 Lab on a Chip European Congress, Berlin, Germany.
2014 Synthetic Biology, Engineering, Evolution & Design, Manhattan Beach, USA.
2014 Workshop on Microfluidics and Microsystems, Ecole Polytechnique, France.
2014 Ludwig Cancer Research Center Minisymposium, CHUV, Switzerland.
2013 Annual Meeting of the National Doctoral Program in Informational and Structural Biology, Saariselka, Finland.
2013 Frontiers in Nanomedicine and Imaging, Lausanne, Switzerland.
2013 The Physical Biology of the Cell, Hawaii, USA.
2013 Microfluidics for Systems Biology and Bioprocess Development, Frankfurt, Germany.
2012 59th AVS International Symposium, Tampa, USA.
2012 MipTec 2012, Basel, Switzerland.
2012 Swiss Single Molecule Localisation Microscopy Symposium, EPFL, Switzerland.
2012 EMBL Conference: Microfluidics 2012, Heidelberg, Germany.
2012 GDR Microfluidique / Micro Nano Systems, Bordeaux, France.
2011 104th International Titisee Conference on "Genomic Regulation", Titisee, Germany.
2011 1st International SystemsX.ch Conference, Basel, Switzerland.
2011 Bertinoro Computational Biology (BCB) Meeting, Italy.
2011 12th International Conference on Systems Biology (ICSB), Heidelberg/Mannheim, Germany.
2011 USGEB Meeting 2011, University of Zurich, Switzerland

2010 All SystemsX Day, University of Geneva, Switzerland.
2010 Swiss Image-Based Screening Conference, EPFL, Switzerland.
2010 NCCR Frontiers in Genetics Annual Meeting, Saas-Fee, Switzerland.
2010 NanoBio-Zurich 2010, Zurich, Switzerland.
2010 24th Annual Symposium of the Protein Society, San Diego, USA.
2010 Molecular Basis of Evolutionary Innovations, Marche-en-Famenne, Belgium.
2010 CMI Annual Review Meeting, EPFL, Switzerland.
2009 BioNano 2009, Aigle, Switzerland.
2009 Eurosensors School 2009, Lausanne, Switzerland.
2009 435. WE-Heraeus-Conference, Physics of Biological Function, Bad Honnef, Germany.
2009 Information Processing in Cells and Tissues (IPCAT 2009), Ascona, Switzerland.
2008 NCCR Frontiers in Genetics Annual Meeting, Saas-Fee, Switzerland.
2008 Synthetic Biology Workshop, University of Groeningen, Netherlands.
2008 All-SystemsX.ch Day, Basel, Switzerland
2008 Union of the Swiss Societies of Experimental Biology, Lausanne, Switzerland.
2006 Genomes, Medicine and the Environment Conference, Hilton Head, SC.
2006 BioLSI-2, Caltech, CA.
2005 Biophysical Society Meeting, Long Beach, CA. (Poster)
2004 BioLSI-1, Aspen, CO.
2002 DARPA-BIOS Principal Investigator Kickoff Meeting, San Diego, CA.

Invited Seminars

51 Invited Seminars and Presentations

2025 Gulliver Seminar Series, ESPCI, Paris.
2022 Build-A-Cell Seminar Series, USA.
2021 Spanish Research Council (CSIC), Madrid, Spain.
2021 University of Minnesota, Minneapolis, USA.
2021 Department of Chemical Engineering, University of Florida, USA.
2021 Federal Office of Public Health of the Swiss Confederation, Switzerland.
2021 Swiss National Covid-19 Science Task Force, Switzerland.
2019 Institute for Molecules and Materials, Radboud University, Netherlands.
2019 Department of Chemistry, University of Rome Tor Vergata, Italy.
2016 Institut Pasteur, Paris, France.
2016 University of Bern, Switzerland.
2016 TU Darmstadt, Germany.
2016 Biozentrum, University of Basel, Switzerland.
2015 Yale University, USA.
2015 FAS Center for Systems Biology, Harvard University, USA.
2015 School of Biological Sciences, University of Edinburgh, UK.
2015 IGBMC, Strasbourg, France.
2015 KU Leuven, Leuven, Belgium.
2015 ICFO, Castelldefels, Spain.
2015 TU Eindhoven, Eindhoven, Netherlands.
2015 Utrecht University, Utrecht, Netherlands.
2014 Institute of Molecular Pathology, Vienna, Austria.
2014 Institute of Science and Technology Austria, Vienna, Austria.
2014 California Institute of Technology, Pasadena CA, USA.

2013 Department of Biosystems Science and Engineering, ETHZ, Switzerland.
2013 Department of Fundamental Microbiology, UNIL, Switzerland.
2013 Columbia University, New York, USA.
2013 University of British Columbia, Vancouver, Canada.
2013 Institute for Systems Biology, Seattle, USA.
2013 University of Washington, Seattle, USA.
2013 Lewis-Sigler Institute, Princeton University, USA.
2012 Institute of Chemical and Bioengineering, ETHZ, Switzerland.
2012 Institute of Biochemistry, ETHZ, Switzerland.
2011 Department of Information Technology and Electrical Engineering, ETHZ, Switzerland.
2011 Bio-Rad Laboratories, Hercules CA, USA.
2009 Life Technologies / Invitrogen, Carlsbad CA, USA.
2009 SystemsX.ch SME workshop, ETHZ, Switzerland.
2009 ICFO, Castelldefels, Spain.
2009 GeneArt AG, Regensburg, Switzerland.
2009 Zurich Research Laboratory, IBM, Switzerland.
2008 Institute of Biochemistry, ETHZ, Switzerland.
2008 Institute for Theoretical Physics, University of Cologne, Germany.
2008 Department of Biosystems Science and Engineering, ETHZ, Switzerland.
2008 Institute of Bioengineering Retreat, EPFL, Switzerland.
2008 CCMX Workshop, EPFL, Switzerland.
2008 Institute of Molecular Systems Biology, ETHZ, Switzerland.
2007 Department of Ecology & Evolution, University of Chicago, USA.
2007 Buck Institute, Novarto CA, USA.
2007 Bioengineering Department, University of San Diego, USA.
2007 University of California San Francisco, USA.
2007 Lewis-Sigler Institute, Princeton University, USA.

Conferences Organized

2026 Where Synthetic Biology Meets Microbiology, EPFL-UNIL-Wageningen Symposium, Lausanne, Switzerland.
2023 2023 Cell Free Systems Conference, Austin, Texas, USA (member of organizing committee)
2019 EPFL-ETHZ Summer School: Quantitative Biology: Bridging the gap between computational and experimental approaches, Fiesch, Switzerland (co-organizers: Mustafa Khammash)
2017 EuroTech Winter School: Molecular Engineering of Synthetic Biological Systems, Eindhoven, Netherlands (co-organizers: Tom de Greef, Friedrich Simmel, Morten Norholm)
2017 EPFL-ETHZ Summer School: Shaping the Future of Bioengineering, Davos, Switzerland. (co-organizer: Andreas Hierlemann)
2017 1st European Congress on Cell-free Synthetic Biology, Congressi Stefano Franscini, Ascona, Switzerland (co-organizers: Richard Murray and Paul Freemont)
2015 MRS Fall Meeting, Symposium K: Materials Science, Technology and Devices for Cancer Modeling, Diagnosis and Treatment, Boston, USA (co-organizers: Rong Fan, Sharon Gerecht, Tony Dickherber, Miqin Zhang)
2013 Physical Biology of Transcription, University of Geneva, Switzerland (co-organizer: David Shore)
2012 Swiss Society of Biomedical Engineering Annual Meeting, EPFL, Switzerland

Reviewer for

Funding Agencies:
Swiss National Science Foundation, Medical Research Council, A*STAR, ERC Consolidator Grant, Israel Science Foundation, BBSRC, NC3Rs, HFSP, NWO (Netherlands Organization for Scientific Research), Ile de France, United States - Israel Binational Science Foundation, ETHZ Research Grants, BRCCH (U. Basel / ETHZ), German Ministry of Education and Research (BMBF), Agence National de la Recherche France, DFG (Deutsche Forschungsgemeinschaft), ETH-ORD
Journals:
Proceedings of the National Academy of Sciences, Nature Methods, PLoS ONE, Lab on a Chip, Sensors and Actuators B, Biomedical Microdevices, Aging Cell, ACS Chemical Biology, Journal of Biotechnology, Interface Focus, Journal of Laboratory Automation, RSC Advances, Biotechnology Journal, Analytical Chemistry, ACS Nano, ACS Synthetic Biology, Nature Communications, Scientific Reports, Nature Reviews Molecular Cell Biology, Nucleic Acids Research, Metabolic Engineering, Nature Nanotechnology, Cell, Scientific Data, Nature Microbiology, Biochemical Society Transactions, IEEE, HardwareX, Small, JoVE, Biotechnology and Bioengineering, ACS Sensors, Nature Reviews Methods Primers, Communications Biology, Cell Reports Methods, Advanced Science, Nature Sustainability

Funding Sources

Research Grants:
2023 - 2024, Co-Principal Investigator, SNSF Spark grant (220737). "Self-regeneration of a minimum set of tRNAs for protein synthesis in a cell-free system." (Awarded to Post-doc Fanjun Li)
2023 - 2027, Principal Investigator, SNSF Grant MINT (200020_214843). "Building the foundations for synthetic cell engineering."
2021, Co-Principal Investigator, EPFL STI eSeed 2021 grant. "Bottom-up molecular engineering of a phosphorylation-based signal and amplification cascade for ultra-fast, cell-free molecular sensing."
2021 - 2021, Principal Investigator, NRP78 Implementation grant. "Deep-screening of sybody pools directed against SARS-CoV-2 RBDs using a high-throughput nano-immunoassay"
2020 - 2022, Principal Investigator, NRP78 Covid-19 (4078P0_198412). "Large-scale serological profiling of SARS-CoV-2 and related human CoVs with high-throughput microfluidic nanoimmunoassays."
2020 - 2024, Co-Principal Investigaor, SNSF Sinergia Grant (CRSII5_189910). "A quantitative approach to transcriptional network dynamics."
2020, Principal Investigator, EPFL Covid-19 Project Grant. "Development of a SARS-CoV-2 serological test."
2019 - 2023, Principal Investigator, SNSF Grant (200021_182019). "Development of high-throughput microfluidic lab-on-a-chip technologies to enable rapid molecular engineering."
2017 - 2020, Principal Investigator, EPFL-Biltema Foundation Grant."Microfluidic Single-cell T-cell Screening."
2017 - 2022, Principal Investigator, ERC Consolidator Grant. "RetroNets: Reverse Engineering Gene Regulatory Networks."
2015 - 2017, Principal Investigator, SystemsX.ch Special Opportunity Grant. "Development of a high-throughput platform for systems immunology and protein engineering."
2015 - 2018, Principal Investigator, HFSP Program Grant (RGP0032/2015). "Establishing microfluidic cell-free systems for the rapid characterization of genetic networks."
2015 - 2016, Co-Principal Investigator, EPFL Integrated Food and Nutrition Center Grant, "On-demand synthesis of vitamins."
2015 - 2018, Principal Investigator, SystemsX.ch IPhD Grant (SNF:51PHP0 157292 / SysX:2014/242). "Comprehensive analysis of transcription factor - promoter interaction in vitro and in vivo."
2012 - 2015, Principal Investigator, SNSF Grant (CR23I2 140697). "Development of a microfluidic platform for the high-throughput quantitation of proteins."
2011 - 2014, Co-Principal Investigator, ProDoc SNSF Grant (PDFMP3 137065). "Development of a microfluidics/biochip platform for high-throughput analysis of cellular chemoattraction."
2010 - 2012, Principal Investigator, Marie Curie Actions - Intra-European Fellowship (IEF) Grant. "Microfluidic device for high-throughput three-dimensional culture, mechanical stimulation and drug screening of stem cells."
2010 - 2013, Co-Principal Investigator, FP7 - SPEDOC Grant. "Surface Plasmon Early Detection & Treatment Follow-up of Circulating Heat Shock Proteins & Tumor Cells."

2009 - 2010, Co-Principal Investigator, SystemsX.ch, IPP Grant. "A computational high-throughput platform for characterizing transcription regulatory interactions."
2008 - 2013, Principal Investigator, SystemsX.ch, DynamiX RTD Grant. "A systems approach to characterizing and modeling the yeast transcriptional regulatory network."
2008 - 2009, Principal Investigator, Nano-Tera, NTF Grant. "A programmable, universally applicable microfluidic device platform."

Start-up Funding:
2025, EPFL Innogrant (100k CHF), Genorobotics
2021, Y Combinator (125k USD), Adaptyv Biosystems
2021, EPFL/FIT Innogrant (100k CHF), Adaptyv Biosystems
2020, EPFL Ignition grant (30k CHF), EirDrop
2020, EPFL Ignition grant (30k CHF), Adaptyv Biosystems

iGEM Funding:
2019, Nikon Instruments, iGEM project sponsor
2018, Nikon Instruments, iGEM project sponsor
2018, Swiss Industry Science Fund, iGEM project sponsor
2017, KGF, iGEM project sponsor
2017, Nikon, iGEM project sponsor
2016, KGF, iGEM project sponsor
2015, KGF, iGEM project sponsor
2014, KGF, iGEM project sponsor
2014, Nikon Instruments, iGEM project sponsor
2013, KGF, iGEM project sponsor
2012, KGF, iGEM project sponsor
2011, Nikon Instruments, iGEM project sponsor
2011, KGF, iGEM project sponsor
2010, Nikon Instruments, iGEM project sponsor
2010, KGF, iGEM project sponsor
2009, Nikon Instruments, iGEM project sponsor
2009, KGF (Roche, Novartis, Merck, Syngenta), iGEM project sponsor

Conference Funding:
2017, Office of Naval Research Global, conference funding (ECCSB)
2013, KGF, Physical Biology of Transcription Meeting Sponsor

Teaching

2024 - present
Introduction to Bioengineering (EE-526)
Cell-Free Synthetic Biology Lab (EE-490(j))
2023
Cell-Free Synthetic Biology Lab (EE-490(j))
2022
Cell-Free Synthetic Biology Lab (EE-490(j))
2020
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal.
2019
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal, Grand Prize Winner (overgrad), Best Environment Project, Best Integrated Human Practices, Nominated for: Best Part Collection, Best Presentation, Best Wiki
2018
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal, Nominated for: Best Therapeutics Project, Best Soft-

ware
2017
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal, Award for Best Education and Public Engagement Project, Nominated for: Best Diagnostics Project, Best Integrated Human Practices, Best New Basic Part, Best Software
Scientific project design in regenerative medicine and diagnostics (Masters), EPFL
2016
Scientific project design in regenerative medicine and diagnostics (Masters), EPFL
2015
Physical Biology of the Cell I (Bachelor), EPFL
iGEM Project Course (Bachelor, Master), EPFL: Silver Medal
Scientific project design in regenerative medicine and diagnostics (Masters), EPFL
2014
Physical Biology of the Cell I (Bachelor), EPFL
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal
Scientific project design in regenerative medicine and diagnostics (Masters), EPFL
2013
Physical Biology of the Cell I (Bachelor), EPFL
iGEM Project Course (Bachelor, Master), EPFL: Silver Medal, Qualified for World Championship
2012
Physical Biology of the Cell I (Bachelor), EPFL
Genome and Network Architecture (Master), EPFL
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal
2011
Genome and Network Architecture (Master), EPFL
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal, Qualified for World Championship
2010
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal, iGEMers prize (shared with Slovenia, Cambridge, Imperial College London, and MIT)
2009
iGEM Project Course (Bachelor, Master), EPFL: Gold Medal, Special Prize "Best New BioBrick or Device, Engineered" (shared with University of Freiburg)
2008
iGEM Project Course (Bachelor, Master), EPFL: Bronze Medal
1999-2003
Teaching Assistant, Intro. to the Design of Biol. Molecules and Systems, Caltech, 2002-2003
Teaching Assistant, Molecular Biology Laboratory, Caltech, 2002
Peer Tutor, Fairleigh Dickinson University, 1999-2000

Students and Collaborators

Post-Doctoral Fellows:
Fanjun Li, 2023-

PhD Students:
Pao-Wan Lee, 2022-
Amogh Kumar, 2022-
Saeed Seyed Muttaghi, 2024-
Onur Burak Oezdemir, 2026-
Mengting Lyu, 2026-
Misaki Tsuchida, 2026-

Master Thesis Students:

Hossein Veisi, 2025-

Undergraduate Students (Projects):
Yi Gu, 2026-

Technicians:
Estelle Baumann, 2025-

Alumni

Post-Doctoral Fellows:
Maria Lopez Malo, 2020-2024
Gregoire Michielin (SNF MD-PhD Fellow), 2021-2022
Julia Tischler (Marie Heim-Vögtlin SNF Fellow), 2017 - 2022
Evan Olson, 2017-2021
Nadanai Laohakunakorn, 2015-2019
Francesco Piraino, 2013-2017
Jose Garcia-Cordero, 2010-2013
Luis Miguel Fidalgo, 2009-2012
Marcel Geertz (Post-Doc, Shore Lab), 2008-2012

Co-Advised Post-Doctoral Fellows:
Ludovica Vanzan (Suter Lab), 2020-2025

PhD Students:
Ragunathan Bava Ganesh, 2020-2026
Laura Grasemann, 2019-2024
Shiyu Cheng, 2018-2024
Ming Yip, 2017-2022
Amir Shahein, 2019-2022
Barbora Lavickova, 2016-2021
Fabien Jammes, 2017-2021
Gregoire Michielin (SNF MD-PhD Fellow), 2016-2021
Moustafa Houmani, 2020-2021
Cai Chun-Jie, 2018-2020
Zoe Swank, 2015-2020
Ivan Istomin, 2015-2020
Ekaterina Petrova, 2013-2018
Michael Crone, 2017-2018
Francesca Volpetti, 2012-2017
Kristina Woodruff, 2012-2017
Matthew Blackburn, 2010-2016
Henrike Niederholtmeyer, 2010-2015
Jean-Bernard Nobs, 2009-2014
Arun Rajkumar, 2008-2013
Sylvie Rockel, 2008-2013
Nicolas Denervaud, 2008-2012
Tatjana Petrov, 2009-2011

Co-Advised Students:
Simone Giaveri (Stellacci Lab), 2016-2021
Amanda Verpoorte (McKinney Lab), 2012-2017
Zuzana Petrova (Huelsken Lab), 2012-2016
Johannes Becker (Naef Lab), 2012-2015

Meltem Elitas (McKinney Lab), 2008-2012
Bin He (Kreitman Lab, U. Chicago), 2008-2012
Lina Huang (Martin Lab), 2008-2010

Master Students (Thesis):
Koami Gafan (EPFL external), 2025-2026
Lisa Dratva (EPFL external), Spring 2021
Vincent Bernaert (EPFL external), Spring 2021
Ferdinand Ativon (Masters Thesis, BME Paris), 2021
Thomas Simonet (external), 2015
Craig Watson, 2015
Adele Drame-Maigne (external), 2014
David Moi, 2014
Nicolas Gobet (external), 2010-11
Valoise Mendoh, 2010-11

Masters Students (semester projects):
Lucas Sheng, Fall 2025
Lara Laamari, Spring 2022
Alaa Ahmed, Summer 2019
Julie Laurent, Fall 2018
Killian Chochet, Fall 2015
Pernille Rainer, Fall 2015
Thibaud Szymczak, Fall 2015
Lea de Maddalena, 2014-2015
Praneeth Karempudi, 2015
Alexander Belushkin, Spring 2014
Christophe Nell, Spring 2014
Steve Beguin, Fall Semester 2013
Sylvain Bernard, 2013

Undergraduate Students (Projects):
Simon Lietar, Spring 2021
Justine Stoll, Summer 2019
Valere Meizoz, Summer 2018
Leo Sumi, Spring 2018
Golzar Mesbah, Summer 2015
Julien Delisle, Spring 2014
Stefano Tartini, Spring 2014
David Christe, Spring 2014
Astrid Kibleur, 2011
Viktoria Stepanova, 2009

Interns, Visitors, Startups:
Lazo Ali (Lebanese American University), SRP Intern 2025
Pavel Feskin (Moscow State University), SRP Intern 2024
Alefiya Dohadwala (National University of Singapore), SRP Intern, 2023
Alicja Przybyszewska-Podstawka (Medical University of Lublin), Intern, 2022
Maria Andrea (Universidad de Ingeniería y Tecnología), SRP Intern, 2022
Moustafa Houmani (Adaptyv Biosystems), 2020-2022
Daniel Gutierrez (Adaptyv Biosystems), 2020-2021
Julian Englert (Adaptyv Biosystems), 2020-2021
Jian Ju (Visiting graduate student), 2021
Federico Jara (EirDrop), 2020-2021

Rafael Rollu (EirDrop), 2020-2021
Amina Mezghani (EPFL), Intern, 2021
Noemi Tentillier (AC Immune), 2020-2021
Mehdi Hicham (EPFL), Intern, 2019
Martha Carolina Elizondo Cantu (Tecnologico de Monterrey), SRP Intern, 2019
Asterios Arampatzis (Aristotle University of Thessaloniki), SRP Intern, 2018
Rohan Thakur (UC Berkeley), Whitaker International Fellow, August 2017 - May 2018
Ahmed Saadawi (Paris Descartes University), Intern, Summer 2017
Felix Faltings (EPFL), Intern, 2016
Stefan Bassler (University of Heidelberg), Intern, 2016
Malek Kabani (EPFL), Intern, 2016
Evgenia Pankevich (Lomonosov Moscow State University), SRP Intern , 2016
Caroline Werlang (B.S. Caltech), Fulbright Scholar, September 2015 - 2016
Anna Olerinyova (Oxford University), SRP Intern, 2015
Emma Hemus (McGill University), ThinkSwiss Research Scholarship, 2015
Charlotte ter Haar (Northwestern University), Whitaker International Fellow, 2014-2015
Holly Rees (University of Cambridge), SRP Intern, 2014
Mathieu Quinodoz (EPFL), Intern, 2013
Florian Borse (EPFL), Intern, 2013
Dennis Zhou (Cornell University), SRP Intern, 2013
Vincent Zimmern (EPFL), Intern, 2012
Heidi Culver (Johns Hopkins University), SRP Intern, 2011
Arja Ray (IIT Kharagpur), Summer Intern, 2011
Kelli Xu (UCSD), SRP Intern, 2010
Bhaskar Ganesh Chennuri (IIT Guwahati), Summer Intern, 2010
Siddharth Gupta (IIT Guwahati), Summer Intern, 2009

Technicians:
Simon Lietar, 2021-2022
Fatemeh Arefi, 2021-2022

PhD committees

Thesis Committees (28 total)
2025, Alina Kuzembayeva, Advisor: Heinz Koeppl (TU Darmstadt)
2025, Pouriya Bayat, Advisor: Keith Pardee (University of Toronto)
2025, Viachslev Rusanov, Advisor: Samy Gobaa (Institute Pasteur)
2025, Sofiia Bolkhovetska, Advisor: Alexandria Deliz Liang (UZH)
2023, Alexia Stollmann, Advisor: Romain Quidant (ETHZ)
2022, Shailan Shui, Advisor: Bruno Correia
2021, Mikhail Nikolaev, Advisor: Matthias Lutolf
2021, Maxime Mistretta, Advisor: Giulia Manina (Pasteur Institute)
2021, Johannes Bues, Advisor: Bart Deplancke
2019, David Taylor, Advisor: Govind Kaygala / Philippe Renaud
2019, Sonja Giger,Advisor: Matthias Lutolf
2019, Maaruthy Yelleswarapu, Advisor: Wilhelm Huck (Radboud University)
2017, Julien Cors, Advisor: Bradley Nelson (ETHZ)
2017, Roman Bulushev, Advisor: Aleksandra Radenovic
2016, Yoji Tabata, Advisor: Matthias Lutolf
2016, Nathalie Brandenburg, Advisor: Matthias Lutolf
2015, Arun Shivanandan, Advisor: Aleksandra Radenovic
2015, Laura Prochazka, Advisor: Kobi Benenson (ETHZ)
2015, Sowmya Balasubramanian, Advisor: Florian Wurm

2015, Simone Allazetta, Advisor: Matthias Lutolf
2014, Yuya Okawa, Advisor: Matthias Lutolf
2014, Alina Isakova, Advisor: Bart Deplancke
2014, Aline Roch, Advisor: Matthias Lutolf
2014, Philipp Lienemann, Advisor: Matthias Lutolf
2013, Nicolas Descharmes, Advisor: Romuald Houdre
2012, Steffen Cosson, Advisor: Matthias Lutolf
2012, Stefan Kobel, Advisor: Matthias Lutolf
2008, Elodie Dahan, Advisor: Yusuf Leblebici

Candidacy Committees (38 total)
2026, Karl Pang, Advisor: Aleksandra Radenovic
2026, Yuyan Su, Advisor: Yujia Zhang
2023, Tao Zhang, Advisor: Cathrin Brisken
2022, Yann Sprunger, Advisor: Adrian Ionescu
2021, Anthony Marchaund, Advisor: Bruno Correia
2020, Gloria Porro, Advisor: Carlotta Guiducci
2020, Bilge Sen Elci, Advisor: Matthias Lutolf
2020, Moritz Hofer, Advisor: Matthias Lutolf
2019, Içvara Barbier, Advisor: Yolanda Schaerli (UNIL, mid-thesis exam)
2019, Jiukai Tang, Advisor: Jing Wang (ETHZ)
2018, Sailan Shui, Advisor: Bruno Correia
2018, Saurabh Tomar, Advisor: Carlotta Guiducci
2017, Alice Gillen, Advisor: Ardemis Boghossian
2017, Margeaux Duchamp, Advisor: Philippe Renaud
2017, Thomas Simonet, Advisor: John McKinney
2015, Michael Graf, Advisor: Aleksandra Radenovic
2015, Oleg Mikhajlov, Advisor: John McKinney
2015, Vincent Trachsel, Advisor: Matthias Lutolf
2014, Daniel Strebinger, Advisor: David Suter
2014, Li Dong, Advisor: Martin Gijs
2014, Yannick R. Devaud, Advisor: Matthias Lutolf & Martin Ehrbar (USZ)
2014, Tian Qiu, Advisor: Jeffrey Hubbell
2014, Tabata Yoji, Advisor: Matthias Lutolf
2013, Laura Kolb, Advisor: Matthias Lutolf
2013, Katrin Schneider, Advisor: John McKinney
2013, Nathalie Brandenberg, Advisor: Matthias Lutolf
2013, Stefano Varricchio, Advisor: Dario Floreano
2012, Volodymyr Koman, Advisor: Olivier Martin
2012, Manuel Fankhauser, Advisor: Melody Swartz
2012, Michael Unger, Advisor: Heinz Koeppl (ETHZ)
2012, Shourya Dutta Goupta, Advisor: Olivier Martin
2011, Mukul Girotra, Advisor: Matthias Lutolf
2011, Sagar Manoli, Advisor: Florian Wurm
2011, Aline Roch, Advisor: Matthias Lutolf
2010, Irina Krier, Advisor: Bart Deplancke
2010, Yuya Okawa, Advisor: Matthias Lutolf
2010, Alina Isakova, Advisor: Bart Deplancke
2009, Meltem Elitas, Advisor: John McKinney

Mentoring (9 total)
J. Doe 2, EDMI
J. Doe 1, EDMI
Andre Chatel, EDMI, Advisor: Giovanni Boero

Kerim Yildirim, EDMI, Advisor: Edoardo Charbon
Sonja Giger, EDBB, Advisor: Matthias Lutolf
Jake Yeung, EDBB, Advisor: Felix Naef
Marco Pisano, EDBB, Advisor: Melody Swartz
Andrea Negro, EDBB, Advisor: Matthias Lutolf