Swiss Federal Institute of Technology Lausanne (EPFL)
Global Health Institute, School of Life Sciences
Laboratory of Molecular Microbiology

Melanie Blokesch
Full Professor
EPFL-SV-UPBLO, Station 19
CH-1015 Lausanne, Switzerland
https://www.epfl.ch/labs/blokesch-lab/

Phone: +41 21 693 06 53
Email: melanie.blokesch@epfl.ch
Secretary: +41 21 693 7232
(Marisa Marciano Wynn)
Orcid ID: 0000-0002-7024-1489
Researcher ID: A-4057-2013

CURRICULUM VITAE

Melanie Blokesch

PROFESSIONAL EXPERIENCE AND EDUCATION

02-07/2025 **Visiting Professor,** Department of Microbiology, Harvard Medical School, Boston, USA

07/2022- **Director**, Global Health Institute, School of Life Sciences, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland

06/2021- **Full Professor**, Global Health Institute, School of Life Sciences, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland

2016-2021 **Associate Professor** (tenured), Global Health Institute, School of Life Sciences, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland

2009-2016 **Tenure-track Assistant Professor**, Global Health Institute, School of Life Sciences, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland

2005-2009 **Postdoctoral Fellow,** Division of Infectious Diseases and Geographic Medicine & Department of Microbiology & Immunology, Stanford University, USA
Mentor: Prof. Dr. Gary Schoolnik

2000-2004 **PhD in Biology** (**doctoral degree/Dr. rer. nat.**); *summa cum laude;* with highest distinction
Department Biology I, Microbiology, Ludwig-Maximilians-University, Munich, Germany
Thesis advisor: Prof. Dr. Dr. h.c. August Böck

1995-2000 **Diploma in Biology,** Microbiology (major), Genetics, Medical Microbiology, Immunology (minors), Ludwig-Maximilians-University, Munich, Germany; Diploma thesis at the Institute of Genetics and Microbiology

AWARDS AND DISTINCTIONS

2025 Elected member of the **Academia Europaea**
2022 Elected fellow of the American Academy of Microbiology (**AAM**)
2021 Elected member of the German National Academy of Sciences, **Leopoldina**
2019 Elected member of the European Molecular Biology Organization (**EMBO**)
2018 Elected member of the European Academy of Microbiology (**EAM**)
2017 Howard Hughes Medical Institute (**HHMI**) International Research Scholarship
2017 Awardee **'25 Frauen, deren Erfindungen unser Leben verändern'** by Edition F, ZEIT online, Handelsblatt and Gründerszene, Berlin, Germany
2015 **Research Award**, Association for General and Applied Microbiology (VAAM), Germany

The Research Award is an annual prize awarded to young group leaders for outstanding research in the field of microbiology. This was the first time that a researcher working outside of Germany has been granted the award.

2015 The ***Emmanuelle Caron lecture*** at Imperial College London, UK (May 2015)

2015 EPFL teaching award **"Polysphère"** by the student association AGEPoly for best teacher in the School of Life Sciences

2015 **Best oral presentation award,** BacNet 2015 in San Feliu de Guixols, Spain

2013 Member of **AcademiaNet,** expert database of leading women scientists (nominated by EMBO, ERC, 2 x SNSF).

2012 **Teaching award,** teaching section School of Life Sciences, EPFL (best teaching evaluation for three consecutive years, 2010-2012).

2007 Nominated by the German Research Foundation (DFG) for participation in the 57th Meeting of Nobel Laureates in Lindau, Germany.

2005 **Leopoldina Prize for Junior Scientists**, German National Academy of Sciences Leopoldina
The German National Academy of Sciences Leopoldina is one of the oldest academies of sciences worldwide. The prize for junior scientists is awarded to researchers under the age of 30 "who have produced exceptional scientific work in one of the fields represented by the Leopoldina".

2005 **Thesis Award,** Association for General and Applied Microbiology (VAAM), Germany

GRANTS AND FELLOWSHIPS

2025 **Swiss National Science Foundation scientific exchange grant** (232371; single PI)

2025-2029 **Swiss National Science Foundation individual grant** (10.000.385; single PI); top rated grant application.

2022-2025 **Swiss National Science Foundation individual grant** (310030_204335; single PI)

2019-2024 **Swiss National Science Foundation individual grant** (310030_185022; single PI); top rated grant application.

2019 **Research grant,** Novartis Foundation for Medical and Biological Research

2018-2024 **ERC Consolidator Grant** awarded by the **European Research Council** ("CholeraIndex"); success rate: 13.8% (awarded in 2016).

2017-2022 **Howard Hughes Medical Institute (HHMI) International Research Scholarship** (single PI); 41 scientists selected from nearly 1'500 applicants.

2017-2021 **Research grant by the Swiss National Science Foundation** in the framework of the National Research Program ***Antimicrobial Resistance*** (NRP 72; 407240_167061; single PI)

2016-2018 **Swiss National Science Foundation individual grant** (31003A_162551; single PI)

2015-2016 **Swiss National Science Foundation equipment grant** for a High Frequency Mass Spectrometer for Advanced Proteomics Analysis (316030_164075; co-applicant)

2015-2016 **Swiss National Science Foundation equipment grant** for a Multicolour 3D STED Microscope extension (316030_164106; co-applicant)

2014-2015 **Swiss National Science Foundation equipment grant** for a Serial Block Face Scanning Electron Microscope (316030_157883; co-applicant)

2013-2018 **ERC Starting Grant** awarded by the **European Research Council** ("VIR4ENV"); success rate: 11.3% (awarded in 2012).

2013-2015 **Swiss National Science Foundation individual grant** (31003A_143356; single PI)

2013 **Invited Speaker Meeting Grant**, *Fourth Genome Maintenance Meeting* (GMM4), Federation of European Microbiological Societies (FEMS)

2012-2013 **Research grant,** Novartis Foundation for Medical and Biological Research

2012 **Seed money,** EPFL Cooperation & Development Center

2010-2012 **Swiss National Science Foundation individual grant** (31003A_127029; single PI)

2007-2008 **Dean's Fellowship Award,** Stanford University School of Medicine, Stanford, CA, USA

2005-2007 **Research Fellowship,** German Research Foundation (DFG)

2004 **Student Travel Grant,** ASM 104th General Meeting in New Orleans, USA

EDITORIAL TASKS, BOARDS, AND REVIEWING

2022	Boards of Editors *mBio*
2021-	Section Editor *microLife*
2019-2022	Reviewing Editor *eLife*
2017-2022	Associate Editor *PLoS Genetics*
2017-2021	Academic Editor *PLoS Biology*
2017-2021	Editor *Molecular Microbiology*
2016-2022	Editorial Board *Current Opinion in Microbiology*
2015-2016	Senior Editor *mSphere*
2014-2015	Editor *Scientific Reports*
2013-2022	Editor *Microbes & Infection*
2014-2020	Member of the Editorial Board of *PeerJ*
2013	Associate Editor *BMC Microbiology* (resigned by the end of 2013)
2011-2015	Member of the Editorial Board of *Applied and Environmental Microbiology*

- Invited ad hoc reviewer for these journals: *Appl. Environ. Microbiol., Arch. Microbiol., BMC Microbiol., Cell Host & Microbe, Cell Rep., Cell. Microbiol., Chemical Science, Curr. Opin. Microbiol., eLife, EMBO J., Environ. Microbiol., FEBS J., FEBS Lett., FEMS Microbiol. Lett., Infect. Immun., ISME J., J. Bacteriol., J. Clin. Microbiol., mBio, Mol. Microbiol., Microbiology, Nature, Nat. Biotechnol., Nat. Commun., Nat. Microbiol., Nat. Rev. Microbiol., PLoS Genet., PLoS Negl. Trop. Dis., PLoS One, PLoS Pathog., Proc. Natl. Acad. Sci. USA, Res. Microbiol., Science, Sensors, Trends Ecol. Evol., Vaccine, Water Res.*

- Invited ad hoc reviewer for the following funding agencies and foundations: *European Research Council* (ERC)*, Swiss National Science Foundation* (SNSF, Switzerland)*, French Research Agency* (ANR, France), *Fondation pour la Recherche Médicale* (France)*,* the *Austrian Science Fund* (FWF), *the Wellcome Trust* (UK), *Research Council of the Université catholique de Louvain* (Belgium), the *Gebert Rüf Foundation* (Switzerland), the Swiss bilateral Science and Technology Cooperation by the State Secretariat for Education, Research, and Innovation (Switzerland), National Geographic (USA), and the Alexander von Humboldt Foundation, Germany.

COMMISSIONS OF TRUST

2025	Special Fellow Nomination Committee, European Academy of Microbiology (EAM)
2024	Search committee *Assistant Professorship of Virus-Host Interactions*, ETH Zurich, Switzerland
2023	Scientific Advisory Board *Institute Pasteur Lille*, France
2023	Search committee *Assistant Professorship in Microbial Cell Biology*, University of Lausanne, Switzerland
2021-2022	Scientific Advisory Board *Institute for Integrative Biology of the Cell* (I2BC) spanning three research campuses in the Paris region, France
2021-2024	Scientific Advisory Board *Institute of Pharmacology and Structural Biology* (IPBS) in Toulouse, France
Since 2021	Member, EMBO Installation Grants committee
2021	Evaluation committee *Max Planck Research School* (IMPRS - From Molecules to Organisms) in Tübingen, Germany
2021	Search committee *Professorship in Microbiology*, Faculty of Medicine, University of Geneva, Switzerland
2020	Search committee *Junior group leader* for the Institute of Pharmacology and/or Structural Biology (IPBS) and the Centre for Integrative Biology (CBI) in Toulouse, France
2020	Member *COVID-19 ETH domain advisory task force* (March 2020)
2019-2022	Member *Specialised Committee Interdisciplinary* (FAID) & *Sinergia Evaluation Committee*, Swiss National Science Foundation, Switzerland
2019-2025	Elected member of the *National Research Council* of the Swiss National Science Foundation (4 years; renewed to 6 years)

2019-2022 Scientific Advisory Board *Research Centre for Infectious Diseases* (ZINF) in Würzburg, Germany

2019 Faculty hiring committee member for Professorship in *Basic Research in Biology of Infectious Diseases of Poverty,* Swiss Tropical and Public Health Institute, Basel, Switzerland

Since 2019 Scientific committee member of the Bavarian Research Network *New strategies against multi-resistant pathogens using digital networking* (bayresq.net) by the *Free State of Bavaria* (Germany)

2019 Evaluation committee tenure promotion for lecturer in Microbiology at the Autonomous University of Barcelona, Catalonia, Serra Húnter Programme, Catalonia, Spain

Since 2018 Scientific Advisory Board *Laboratoire de chimie bactérienne* (LCB) in Marseille, France

2018-2024 Scientific Advisory Board *Centre for Integrative Biology* (CBI) of Toulouse, France

2018 Jury committee member *l'Institut universitaire de France* (IUF), Ministère de l'enseignement supérieur, de la recherche et de l'innovation (MESRI), France.

2018-2024 Hiring Committee Member EPFL Life Sciences Early Independence Research Scholar (ELISIR) program, EPFL, Lausanne, Switzerland (yearly hire of new scholars).

2017-2019 Member of the Research Commission and Vice-Chair Evaluation Panel III, EPFL, Switzerland

2016-2017 Grant panel member *French Research Agency* (ANR), France (two consecutive years)

2016 Faculty hiring committee *Serra Húnter Programme*, Catalonia, Spain

2016 Faculty hiring committee *Department of Fundamental Microbiology* at *the University of Lausanne*, Switzerland

EXTERNAL AND INTERNAL COMMITTEES (SELECTION)

(Thesis committees excluded)

2023-2025 Elected member, Academic Strategic Committee (ASC), EPFL, Switzerland

2023 International *Vibrio* meeting Organizing Committee

Since 2023 Member, Space Committee, School of Life Sciences, EPFL, Switzerland

Since 2022 Member, Award Committee, School of Life Sciences, EPFL, Switzerland

Since 2020 Member, Steering committee Bioelectron Microscopy Facility (BioEM), EPFL, Switzerland

Since 2020 Member, Gender committee, School of Life Sciences, EPFL, Switzerland

2020 Member, COVID-19 academic committee, EPFL, Switzerland (March until ~July)

Since 2019 Board member Faculty Direction, School of Life Sciences, EPFL, Lausanne, Switzerland

Since 2019 Co-organizer biannual DMF/UNIL-EPFL microbiology seminar series

2018-2019 EPFL School of Life Sciences SV 2.0 committee, EPFL, Lausanne, Switzerland

2017-2018 Vice Director, Doctoral Program in Molecular Life Sciences (EDMS), EPFL, Switzerland

2017-2018 Founding member Open Science Strategic Committee, EPFL Lausanne, Switzerland

2017 Poster judgment committee at the New Approaches and Concepts in Microbiology, EMBO/EMBL Symposium in Heidelberg, Germany

Since 2015 Committee member, Doctoral Program in Molecular Life Sciences (EDMS), EPFL Lausanne

2016 Member Audit Task Force Committee, School of Life Science, EPFL Lausanne, Switzerland

2014-2016 Member, Faculty Council, School of Life Sciences, EPFL, Lausanne

2009-2014 Committee member *International Summer Research Program* (SRP)*,* EPFL

2010-2011 Program Director (shared) *International Summer Research Program* (SRP)*,* EPFL

2010-2012 Representing the School of Life Sciences in the ACAD committee (working group including faculty and administrative members of EPFL with the aim to improve administrative tasks).

2009-2016 Scientific board and local steering committee *Doctoral Program in Microbial Sciences*; overreaching program for the western part of Switzerland (CUSO-sponsored)

CONFERENCE AND WORKSHOP ORGANIZATION

2023 Chair, *Gordon Research Conference on Microbial Adhesion and Signal Transduction* in Newport, USA (co-elected with Raphael Valdivia, USA); planned for 2021; Covid-19-related delay.

2021-22 Scientific committee member for the 18th *International Symposium on Microbial Ecology* (ISME18) in Lausanne, Switzerland

2022	Member Life Sciences Symposium (20 years anniversary) committee, EPFL, Switzerland
2019	Vice Chair, *Gordon Research Conference on Microbial Adhesion and Signal Transduction* in Newport, USA (co-elected with Raphael Valdivia, USA)
2018-2019	Scientific committee member for the *Swiss Microbial Ecology Meeting 2019* (SME 2019), Switzerland
2017-2018	Program committee member for the *ASM Microbe 2018* meeting by the American Society for Microbioloy (ASM) in Atlanta, USA (invitation for 2018/2019 program committee for *ASM Microbe 2019* meeting in San Francisco declined)
2017-2018	Scientific committee member for the *Annual Meeting 2018* by the Swiss Society for Microbiology (SSM) in Lausanne, Switzerland
2012	Co-organizer (with Prof. P. Linder, CMU, Geneva) of the *Swiss Molecular Microbiology Meeting*
2012	Scientific organizer of the first Global Health Institute retreat in Villars.

PRESENTATIONS AT CONFERENCES (SELECTION)

2026 *(scheduled)*

- *CIG Symposium 2026*, University of Lausanne, Switzerland (**invited speaker**; June 2026)

2025

- *10th Anniversary Student Symposium* at Institute of Pharmacology and Structural Biology in Toulouse, France (**invited keynote speaker**; November 2025)
- EMBO/FEBS Advanced course *The New Microbiology* in Spetses, Greece (**invited speaker**; September 2025)
- Wenner-Gren Foundation Symposium *Phage-bacteria interactions: the molecular battle for control of the central dogma* in Stockholm, Sweden (**invited speaker**; August 2023)
- *Gordon Research Conference on Microbial Adhesion and Signal Transduction* in Newport, USA **(invited speaker;** July 2025)
- *Biology of Acinetobacter XIV conference* in Niagara Falls, NY, USA **(invited speaker;** July 2025)
- *Infection - Roles of Pathogens, Hosts, and Microbiomes* (EMBL/EMBO conference) in Heidelberg, Germany (**invited speaker**; May 2025; *virtual presentation*)
- *Keystone Symposia on Human Microbiome & Host-Microbe Co-Evolution* in Banff, AB, Canada (**invited speaker**; February 2025)

2024

- EMBL conference *The next generation in infection biology;* virtual event (**invited keynote speaker**; November 2024)
- *Microbial Cell Biology meeting* by VAAM in Marburg Germany UK (**invited speaker**; October 2024)
- *Hooke Meeting - Ecology and Evolution of Bacterial Immune Systems* in London, UK (**invited speaker**; September 2024)
- *Bacterial Networks* (BacNet24; EMBO Symposium) in San Feliu de Guixols, Spain (**invited speaker**; September 2024)
- *Gordon Research Conference on Microbial Toxins and Pathogenicity* in Waterville Valley Resort (VT), USA (**invited keynote speaker**; July 2024)
- *12th meeting of the Dublin Academy of Pathogenomics and Infection Biology (DAPI)* in Dublin, Ireland (**invited keynote speaker**; June 2024)
- *Symposium on the Immune System of Bacteria* at the Harvard Medical School in Boston, USA (**invited speaker**; April 2024)
- *Gordon Research Conference on Sensory Transduction in Microorganisms* in Ventura CA, USA (**invited speaker**; January 2024)

2023

- DMF *Impromptu* symposium, Univeristy of Lausanne, Switzerland (**invited speaker**; November 2023)
- Interacademy conference on *Molecular microbiology of bacteria and bacterial infections* in Würzburg, Germany (**invited speaker**; September 2023)
- *Swiss Society for Microbiology* annual meeting in Lausanne, Switzerland (**invited keynote speaker**; August 2023)
- Wenner-Gren Foundation Symposium *Small molecule signaling across the tree of life with a focus on nucleotide signaling* in Stockholm, Sweden (**invited speaker**; August 2023)
- *Gordon Research Conference on Microbial Population Biology* in Proctor Academy, Andover, NH, USA (**invited speaker**; July 2023)
- Seeon conference by the German Society of Hygiene and Microbiology (DGHM) in Seeon, Germany (**invited keynote speaker**; June 2023)
- EMBO workshop *The Immune System of Bacteria* at the Weizmann Institute of Science in Israel (**invited speaker**; February 2023)
- 4th Bacterial Cell Biology Conference in Cancun, Mexico (**invited EMBO keynote speaker**; February 2023)

2022

- Symposium Centre for Molecular Bacteriology and Infection (CMBI), Imperial College, London, UK (**invited keynote speaker**; September 2022)
- International Plasmid Biology Meeting (IPBM) 2022 in Toulouse, France (**invited speaker**; September 2022)
- EMBO/FEBS Advanced course *The New Microbiology* in Spetses, Greece (**invited speaker**; September 2022)
- Biochemical Society Harden Conference on Single Molecule Bacteriology (SMOLBAC II) in Oxford, UK (**invited speaker;** July 2022; postponed from 2020 because of COVID-19 pandemic)
- *International Union of Microbiological Societies, IUMS meeting* in Rotterdam, Netherlands (**invited speaker**; July 2022; last minute switch to virtual meeting)
- *Gordon Research Conference on Bacterial Cell Surfaces* in Mount Snow, West Dover (VT), USA (**invited speaker**; June/July 2022; postponed from 2020 due to COVID-19 pandemic)
- *Microbiology Society Annual Conference* in Belfast, UK (**invited speaker**; April 2022)
- Symposium *Dynamic organization of cellular protein machineries* in Freiburg, Germany (**invited speaker**; March 2022; last minute change to virtual)
- *Cell Biology of Infection* - Rigi Workshop, Rigi Mountain Switzerland (**invited speaker**; January 2022)

2021

- *New Approaches and Concepts in Microbiology, EMBO/EMBL Symposium* in Heidelberg, Germany (**invited speaker;** July 2021 - *changed to virtual format*)

2020

- *Microverse I - Joint International Symposium on Microbial and Biomolecular Interactions* (**invited speaker**; September 2020; virtual)
- *Gordon Research Conference on Bacterial Cell Surfaces* in Mount Snow, West Dover (VT), USA (**invited speaker**; June/July 2020; *canceled because of COVID-19 pandemic*)
- *EMBL Workshop: Unlocking the Gut Microbial Functional Diversity* in Heidelberg, Germany (**invited speaker**; March 2020; *canceled because of COVID-19 pandemic*)
- *3rd Bacterial Cell Biology conference* in Nassau, The Bahamas (**invited speaker**; Februar 2020)

2019

- *Bacterial Morphogenesis, Survival and Virulence* in Cape Town, South Africa (**invited speaker**; November 2019)
- *EMBO Members' meeting* 2019 (**invited speaker as new members**; October 2019)
- EMBO/FEBS Advanced course *The New Microbiology* in Spetses, Greece (**invited speaker**; September 2019)
- *Bacterial Networks* (BacNet19; EMBO Symposium) in San Feliu de Guixols, Spain (**invited speaker**; September 2019)

- *Host-Microbe Symbioses* Summer Course in Lisbon, Portugal (**invited lecturer**; July 2019)
- Gordon Research Conference on *Animal-Microbe Symbiosis* in Mount Snow (VT), USA (**invited speaker**; June 2019)
- FEBS Advanced Lecture Course *Current Advances on Pathogen Research* in Yerevan, Armenia (**invited speaker**; March 2019)

2018
- Howard Hughes Medical Institute (HHMI) Science meeting at Janelia Research Center in Ashburn, Virginia, USA (**speaker** as international scholar; November 2018)
- *Fifth Genome Maintenance Meeting* (GMM5) in Oslo, Norway **(invited keynote speaker;** October 2018**)**
- *Gene regulation* workshop by the *Association for General and Applied Microbiology* (VAAM) in Tutzing/Munich, Germany (**invited speaker**; September 2018)
- *EMBO at Basel Life 2018* meeting in Basel, Switzerland (**invited plenary speaker**; September 2018)
- *17th International Symposium on Microbial Ecology* (ISME17) in Leipzig, Germany (**invited speaker**; August 2018)
- *19th Annual UC Berkeley Microbiology Student Symposium* in Berkeley, USA (**invited keynote speaker**; April 2018)
- Conference *Spatiotemporal Regulation of Bacterial Cells* in Marburg, Germany (**invited speaker**; March 2018)

2017
- *Cold Spring Harbor meeting on Microbial Pathogenesis and Host Response* in Cold Spring Harbor, USA **(invited speaker;** September 2017)
- *Molecular Genetics of Bacteria and Phages Meeting* at University of Wisconsin, Madison, USA **(invited speaker;** August 2017)
- *Gordon Research Conference on Microbial Adhesion and Signal Transduction* in Newport, USA **(invited speaker;** July 2017)
- *FEMS 2017* – 7th Congress of European Microbiologts in Valencia, Spain (**invited speaker**; July 2017)
- *New Approaches and Concepts in Microbiology, EMBO/EMBL Symposium* in Heidelberg, Germany (**invited speaker;** June 2017)
- *Microbiology Society Annual Meeting* in Edinburgh, UK (**invited speaker;** April 2017)
- ASM conference on *Mechanisms of Interbacterial Cooperation and Competition* in Washington, DC, US (**invited speaker;** March 2017)

2016
- *EMBO conference on Bacterial morphogenesis, survival and virulence: Regulation in 4D* in Kerala, India (**invited speaker;** November 2016; health-related last-minute cancellation)
- *10th Swiss Biosafety Meeting* in Lausanne, Switzerland (**invited speaker;** August 2016)
- *Gordon Research Conference on Microbial Toxins and Pathogenicity* in Waterville Valley Resort (VT), USA (**invited speaker**; July 2016)
- *Gordon Research Conference on Bacterial Cell Surfaces* in Mount Snow, West Dover (VT), USA (**invited speaker**; June 2016)
- *Microbe 2016 - American Society for Microbiology General Meeting & ICAAC* in Boston, USA (**invited speaker**; June 2016)
- Symposium *Communication among complex microbial populations,* Collège de France in Paris, France (**invited keynote speaker**; May 2016)
- *VIBRIO 2016 – 6th international conference on the Biology of Vibrios* in Roscoff, France (**invited speaker;** April 2016)
- *Colloque Charles Nicolle* at the General Meeting of the French Society for Microbiology (SFM) in Paris, France (**invited speaker for keynote presentation**; March 2016)

2015
- *Women in Science Session* at *New Approaches and Concepts in Microbiology*, EMBO/EMBL Symposium in Heidelberg, Germany (**invited panel member;** October 2015)
- *New Approaches and Concepts in Microbiology*, EMBO/EMBL Symposium in Heidelberg, Germany (October 2015)

- *SYNMArburg Symposium* in Marburg, Germany (**invited speaker;** September 2015)
- *Life Sciences Symposium 2015* in Lausanne, Switzerland (**invited speaker;** September 2015)
- *Top gear in science* meeting by the Norwegian Academy of Science and Letters, Oslo, Norway (**invited speaker;** June 2015)
- *Infection & Immunity Forum* at the *Foundation Jeantet* in Geneva, Switzerland (**invited speaker;** June 2015)
- *FEMS 2015* – 6th Congress of European Microbiologists in Maastricht, Netherlands (**invited speaker**; June 2015)
- Annual meeting of the Swiss Society for Microbiology in Lugano, Switzerland (May 2015)
- *Bacterial Networks* (BacNet15; ESF-EMBO Symposium) in San Feliu de Guixols, Spain (May 2015)
- @ASM Conference on *Mechanisms of Interbacterial Cooperation and Competition* in Washington, DC, USA (50 participants selected; March 2015)
- Workshop *Emergence of pathogens in natural Vibrio populations: ecology, evolution and pathogenesis* in Paris, France (**invited speaker;** March 2015)
- *Annual Conference of the Association for General and Applied Microbiology (VAAM)* in Marburg, Germany **(invited speaker;** March 2015)
- *Nestlé Institute of Health Sciences–EPFL Science Day* at EPFL, Lausanne, Switzerland (**invited speaker;** February 2015)

2014-2009

- *Seed Money Program conference,* organized by the Cooperation & Development Center (EPFL) in Lausanne, Switzerland (**invited speaker;** October 2014)
- *3rd International Congress of the Molecular Biology Association of Turkey* in Izmir, Turkey (**invited speaker**; September 2014)
- *Microbiology after the genomics revolution: Genomes 2014* in Paris, France (June 2014)
- Annual meeting of the Swiss Society for Microbiology in Fribourg, Switzerland (June 2014)
- *VIBRIO 2014 – 5th international conference on the Biology of Vibrios* in Edinburgh, UK (**invited speaker;** April 2014)
- Annual Meeting of the *Royal Dutch Society for Microbiology* (KNVM) and the *Dutch Society for Medical Microbiology* (NVMM), Arnhem, Netherlands (**invited speaker;** April 2014)
- Annual Meeting of *Life Sciences Switzerland* (LS^2) in Lausanne, Switzerland (February 2014)
- *Gordon Research Conference on Microbial Adhesion and Signal Transduction* in Newport, USA **(invited speaker;** July 2013)
- *American Society for Microbiology 113th General Meeting (ASM 2013),* plenary session, in Denver, USA **(invited plenary speaker;** May 2013**)**
- *Fourth Genome Maintenance Meeting (GMM4)* in Oslo, Norway **(invited speaker;** April 2013**)**
- *Bacterial Networks* (BacNet13; ESF-EMBO Symposium) in Pultusk, Poland (March 2013)
- ISME – *14th International Symposium on Microbial Ecology* in Copenhagen, Denmark (August 2012)
- Joint Annual meeting of the Swiss Society for Infectious Diseases, the Swiss Society for Hospital Hygiene, the Swiss Society for Microbiology and the Swiss Society of Tropical Medicine and Parasitology in St. Gallen, Switzerland **(invited speaker;** June 2012)
- *4th international conference on the Biology of Vibrios* in Santiago de Compostela, Spain (November 2011)
- *FEMS 2011* – 4th Congress of European Microbiologists in Geneva, Switzerland (June 2011)
- *Molecular Microbiology* Meeting 2011 in Würzburg, Germany (May 2011)
- 5th ASM Conference on *Biofilms* in Cancun, Mexico **(invited speaker;** November 2009**)**
- *3rd international conference on the Biology of Vibrios* in Rio de Janeiro, Brazil (November 2009)

2002-2008

- *Annual Conference of the Association for General and Applied Microbiology* (VAAM) in Frankfurt, Germany (March 2008)
- *Genomes, Medicine, and the Environment 2007* in San Diego, USA **(invited speaker;** October 2007)
- *8th International Hydrogenase Conference* in Breckenridge, USA **(invited speaker;** invitation declined; August 2007)
- *EMBO Conference on Molecular Microbiology* in Heidelberg, Germany (August 2006)

- *Annual Conference of the Association for General and Applied Microbiology* (VAAM) in Göttingen, Germany **(invited speaker, thesis award;** October 2005)
- *7th International Hydrogenase Conference* in Reading, UK **(invited speaker;** August 2004)
- Meeting of COST Action 841 in Mülheim, Germany **(invited speaker;** September 2003)
- *Gordon Research Conference Molecular Basis of Microbial One-Carbon Metabolism* in New London, CT, USA **(invited substitute for Prof. Dr. A. Böck;** July 2002)

Invited session chair:

- Annual Meeting of *Life Sciences Switzerland* (LS^2) in Zurich, Switzerland (February 2020)
- *Gordon Research Conference Microbial Adhesion and Signal Transduction* in Newport, USA (July 2019)
- *Gordon Research Conference Bacterial Cell Surfaces* in Mount Snow, West Dover, USA (June 2018)
- *Molecular Genetics of Bacteria and Phages Meeting* in Madison, Wisconsin USA (August 2017)
- Session *Evolution and genome plasticity; FEMS 2017* – 7th Congress of European Microbiologists in Valencia, Spain (July 2017; co-organizer of session)
- Session *Cooperation and Competition Inside the Host;* ASM conference on *Mechanisms of Interbacterial Cooperation and Competition* in Washington, DC, USA (March/April 2017)
- *Infection & Immunity Forum* at the *Foundation Jeantet* in Geneva, Switzerland (June 2016)
- Session *Sucking It up and Squirting It out - Novel Findings in Bacterial Secretion Systems*; *Microbe 2016 (American Society for Microbiology General Meeting & ICAAC),* in Boston, USA (June 2016; organizer of sesssion)
- *Annual Conference of the Association for General and Applied Microbiology* (VAAM) in Jena, Germany (March 2016)
- Session *General Motors*; ASM General Meeting in New Orleans, USA (June 2015; organizer of sesssion)

INVITED PRESENTATIONS AT INSTITUTIONS

2026

- *Center for Structural Systems Biology,* Hamburg, Germany (April 2026)

2021-25

- *University of Wageningen,* Wageningen, Netherlands (September 2025)
- *Wadsworth Center,* New York State Department of Health, Albany, Ny, USA (June 2025)
- *University of Montreal,* Montreal, Canada (May 2025)
- *Microbiome Club* (student & postdoc-organized monthly seminar series), MIT, Boston, USA (May 2025)
- *Department of Microbiology,* Harvard Medical School, Boston, USA (March 2025)
- *Institute Pasteur*, Paris, France (July 2023)
- *Biozentrum,* Basel, Switzerland (April 2023)
- *Mikrobiologischen Kolloquium*, Tübingen, Germany (January 2023)
- *Department of Microbiology* at the University of Illinois at Urbana-Champaign (*virtual visit*; April 2022)
- *Institute of Ecology and Evolution,* University of Bern, Bern, Switzerland (November 2021)
- *McMaster University,* Canada (*virtual presentation*; March 2021)
- *University Zurich,* Switzerland (*virtual presentation*; March 2021)
- *University of Sheffield,* UK (*virtual presentation*; March 2021)
- *Dunn School of Pathology,* Univeristy of Oxford, UK (*virtual presentation*; January 2021)
- *University of Manitoba,* Canada (*virtual presentation*; January 2021)

2016-20

- *Indiana University* in Bloomington*,* USA (*virtual presentation*; November 2020)
- *Institute of Structural and Molecular Biology,* Birkbeck & University College London, UK (January 2020)
- *Department of Microbiology and Molecular Genetics,* Michigan State University, East Lansing, USA (January 2020)
- *Department of Microbiology and Immunology,* University of Michigan, Ann Arbor, USA (January 2020)
- *Department of Microbiology,* Harvard Medical School, USA (October 2019)

- *Biozentrum*, Basel, Switzerland (September 2019)
- *Department of Fundamental Microbiology*, University of Lausanne, Switzerland (September 2019)
- *Departamento de Genética, Facultad de Biología,* Universidad de Sevilla in Sevilla, Spain (May 2019)
- *Center for Integrative Genomics*, University of Lausanne, Switzerland (May 2019)
- *TOP lecture series*, University of Leiden, Netherlands (April 2019)
- *Max Planck Institute for Developmental Biology* in Tübingen, Germany (December 2018)
- *University of California San Francisco*, San Francisco, USA (June 2018)
- *Stanford University*, Palo Alto, USA (May 2018)
- *Instituto Gulbenkian de Ciência*, Oeiras, Portugal (February 2018)
- *John Innes Centre*, Norwich, UK (November 2017)
- *Institute of Microbiology*, ETH Zurich, Switzerland (November 2017)
- *Strathclyde Institute of Pharmacy and Biomedical Sciences,* University of Strathclyde, Glasgow, UK (October 2017)
- *Laboratoire de Microbiologie et Génétique Moléculaires UMR 5100,* Université Paul Sabatier, Toulouse, France (April 2017)
- *SV in extenso*, School of Life Sciences Research Day 2017, EPFL, Switzerland (March 2017)
- *Centre of Excellence in Bacteriology* of the University of Geneva*,* Geneva, Switzerland (January 2017)
- Presentation preceding the 2016 Annual Balzan Lecture, Lausanne, Switzerland (December 2016)
- *Institut for Microbiology*, Ludwig-Maximilians-University, Munich, Germany (November 2016)
- *Friedrich Schiller University,* Jena, Germany (November 2016)
- *Ruhr-University* Bochum, Germany (October 2016)

2011-2015
- *Institute of Cell Biology*, University of Bern, Switzerland (December 2015)
- *School of Biosciences*, University of Birmingham, UK (November 2015)
- *Institute for Molecular Infection Biology*, University of Würzburg, Germany (November 2015)
- *College of Life Sciences,* University of Dundee, UK (September 2015)
- *Hannover Medical School*, Hannover, Germany (July 2015)
- *Max Planck Institute for Marine Microbiology* in Bremen, Germany (July 2015)
- *Max Planck Institute for Terrestrial Microbiology* in Marburg, Germany (May 2015)
- *Institut de Microbiologie de la Méditerranée*, CNRS, Marseille, France (November 2014)
- University of Montpellier (CNRS), Montpellier, France (July 2014)
- Lecturer, summer school *Microbes, Host and Infection* at Tübingen University, Germany (July 2014)
- Lecturer, *Cold Spring Harbor Laboratory Course* on *Advanced Bacterial Genetics,* Cold Spring Harbor, NY, USA (June 2014)
- *Institute for Cell and Molecular Biosciences* at Newcastle University, UK (February 2014)
- *Institute of Medical Microbiology* at the University of Zurich, Switzerland (February 2014)
- *Max Planck Institute for Terrestrial Microbiology* in Marburg, Germany (November 2013)
- Lecturer, PhD course *Infection, Inflammation, and Immunity*, *University of Tromsø*, Norway (June 2013)
- *CNRS unit UMR5240*, Lyon, France (May 2013)
- *Biozentrum*, Basel, Switzerland (February 2013)
- *Max von Pettenkofer-Institut*, Ludwig-Maximilians-University, Munich, Germany (February 2013)
- *Institute Pasteur*, Paris, France (April 2012)
- *Centre de Genetique Moleculaire*, Gif-sur-Yvette, France (April 2012)
- *Institut de Microbiologie de la Méditerranée*, CNRS, Marseille, France (May 2011)
- *Swiss Federal Institute of Aquatic Science and Technology*, Dübendorf, Switzerland (April 2011)

2006-2010
- *Department of Fundamental Microbiology,* University of Lausanne, Switzerland (March 2010)
- *Institute of Microbiology,* ETH Zürich, Switzerland (December 2009)
- *Département de microbiologie et médecine moléculaire*, CMU, Geneva, Switzerland (November 2009)
- *Helmholtz Centre for Infection Research* in Braunschweig, Germany (May 2008)
- *School of Life Sciences*, *Swiss Federal Institute of Technology* Lausanne, Switzerland (May 2008)
- *Max Planck Institute for Terrestrial Microbiology* in Marburg, Germany (March 2008)
- *Scripps Institution of Oceanography*, San Diego, CA, USA (January 2008)

- *University of California, San Diego*, CA, USA (January 2008)
- *Division of Infectious Diseases & Geographic Medicine Annual Retreat*, Stanford, USA (May 2007)
- *Department of Microbiology & Immunology* Annual Retreat, Stanford, USA (April 2006)

TEACHING AND TRAINING

2026
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL – January 2025 (*scheduled*)
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), Spring 2026, EPFL (*scheduled*)

2025
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL – January 2025

2024
- *Planetary Health* (contributing teacher; 4 ECTS credits; Master level; 4h/week, 14 weeks), autumn 2024, EPFL
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), Spring 2024, EPFL
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL – January 2024

2023
- *Planetary Health* (contributing teacher; 4 ECTS credits; Master level; 4h/week, 14 weeks), autumn 2023, EPFL
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), Spring 2023, EPFL

2022
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL

2021
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL – Spring 2021 (remote format in 2021 due to Covid-19 pandemic)
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL – May 2021

2020
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL – Spring 2020 (remote format after March 2020 due to Covid-19 pandemic)
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL – January 2020
- Participation to *Landmark Papers in Cancer and Infection* (doctoral course), EPFL – Spring 2020

2019
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL

2018
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL – Spring 2018
- Participation to *Landmark Papers in Cancer and Infection* (doctoral course), EPFL

2017
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL

2016
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL

2015
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL
- Participation to *Landmark Papers in Cancer and Infection* (doctoral course), EPFL

2014
- Workshop *Microbes and viruses in water: the good, the bad and the innocuous* (1 ECTS credit; doctoral course for the CUSO Doctoral Program in Microbial Sciences), EPFL; Co-organized by Prof. Rizlan Bernier-Latmani and Prof. Tamar Kohn (both Environmental Engineering, ENAC / EPFL)
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL
- Participation to *Landmark Papers in Cancer and Infection* (doctoral course), EPFL

2013
- *Bio-Design for the real world* (contributing teacher; Bachelor level), EPFL
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL
- *Protein localization in bacteria* (1 ECTS credit; doctoral course), EPFL

2012
- *Responses of bacteria to environmental signals* (1 ECTS credit; doctoral course; jointly taught with Prof. J. Collier & Prof. K. Lapouge), University of Lausanne (UNIL)
- *Infection Biology* (5 ECTS credits, Master level; 5h/week, 14 weeks), EPFL
- *Project in biomedical technologies* (8 ECTS credits, Master level (minor), 1 student), EPFL
- *Super-resolution microscopy of bacteria* (1 ECTS credit; doctoral course; jointly taught with Prof. S. Manley, Biophysics), EPFL
- Participation to *Landmark Papers in Cancer and Infection* (doctoral course), EPFL

2011
- *Infection Biology* (5 ECTS credits; Master level; 5h/week, 14 weeks), EPFL
- *Responses of bacteria to environmental signals* (1 ECTS credit; doctoral course; jointly taught with Prof. J. Collier & Prof. K. Lapouge), University of Lausanne (UNIL)
- Participation to *Landmark Papers in Cancer and Infection* (doctoral course), EPFL

2010
- *Biotechnology Laboratory I* (4 ECTS credits, Bachelor level; 4h/week, 14 weeks), EPFL

2008
- Supervision of Bachelor project, Stanford University, USA

2000-2003
- Teaching associate; Ludwig-Maximilians-Universität, Munich, Germany
- Supervision of Diploma Thesis projects, Ludwig-Maximilians-Universität, Munich, Germany

EPFL internal and external supervision (2009 until now; current members underlined)

- **13 postdocs** (J. Kühn, C. Van der Henst, L. Metzger, I. Mateus, M. Jaskólska, D.W. Adams (permanent senior scientist in the lab since 2021), A. Vanhove, S. Isaac, J. Pereira, N. Flaugnatti, T. Sana, A. Proutière, M. Pons, C. Virolle, M. Broc)
- **10 PhD students** (G. Suckow, M. Lo Scrudato, P. Seitz, N. Matthey, N. Drebes Dörr (+ 2 years postdoc in the group), N. Vesel (+ 1 year postdoc in the group), L. Lemos Rocha, S. Otto, C. Fetz, G. Vizzarro [+ 3 1st-year PhD student candidates: C. Colas, M. Meyer, Z. Gong])
- **>30 undergraduate students** (Bachelor students, Master students, Summer Research students, internships including those abroad)
- **8 technical assistants** (plus 2 technical assistant trainees, 2 commercial assistant trainee)

SCIENTIFIC OUTREACH

- **Plenary speaker** for the ***Women in Science*** lecture & luncheon event in Montreux, Switzerland. *Women in Science* is part of the initiative *Fund for Education and Research in Genetics* (FREG) housed at the University of Lausanne, to foster stronger interrelationships between members of the broader community and important research discoveries that impact humanity and the way we understand the world around us. (November 2021)
- "COVID 19 - ce qui a changé pour les chercheurs EPFL - Melanie Blokesch" interview/online movie by Collège des Humanités at EPFL (May 2020).
- Interview on COVID-19 by Sarah Perrin (for EPFL webpage/FLASH magasin; April 2020)
- RTS documentary ***Femmes de science****: Mélanie Blokesch* (2019)
- Work on *V. cholerae* featured within ERC's **2018 Research Highlights** (online and in Annual Report on the ERC activities and achievements in 2018)
- Blokesch group member participated in the **EPFL Alumni event 2018**
- Information booth by Blokesch lab at the **Open Days 2016 at EPFL**.
- Science and gender equality communication on Twitter (@MBlokesch; since 2015)

MEMBERSHIPS

- Member of the *ETH Women Professors Forum* (ETH-WPF)
- Member of the *Association des Professeures de l'École Polytechnique Fédérale de Lausanne* (APEL)
- Member/Friend of the Women in Science and Humanities Foundation (EPFL-WISH)
- Member of Deutscher Hochschulverband (2015-2017)
- Member of VibrioNet Europe (http://www.vibrionet.de/institutes/index.html)
- Member of diverse societies: **ASM** (USA), **SSM** (Switzerland), **VAAM** (Germany)

PUBLICATIONS

Research articles & reviews (preprinted and/or under review/revision):

Research articles (peer-reviewed):

Li Y., Adams D.W., Liu H.W., Shaw S.J., Uchikawa E., Jaskólska M., Stutzmann S., Righi L., Szczelkun M.D., **Blokesch M.,** Gruber S. (2025) Structure and Activation Mechanism of a Lamassu Phage Defence System. – accepted at *Nat. Struct. Mol. Biol*. – see also ***bioRxiv*** doi: 10.1101/2025.03.14.643221

Drebes Dörr N.C., Lemopoulos A., **Blokesch M.** (2025) Exploring Mobile Genetic Elements in *Vibrio cholerae.* ***Genome Biol. Evol.,*** 17**:**evaf079; see also *bioRxiv* doi: 10.1101/2024.07.25.605194

Adams D.W.*[#], Jaskólska M., Lemopoulos A., Stutzmann S., Righi L., Bader L., **Blokesch M.***[#] (2025) West African South American pandemic *Vibrio cholerae* encodes multiple distinct phage defence systems*.* ***Nat. Microbiol.,*** 10:1352-1365. (*equal contribution; [#]co-corresponding); see also *bioRxiv* https://doi.org/10.1101/2024.11.23.624991

Flaugnatti N., Bader L., Croisier-Coeytaux M., **Blokesch M.** (2025) Capsular Polysaccharide Restrains Type VI Secretion in *Acinetobacter baumannii.* ***eLife,*** 14:e101032. (This article was accepted for publication via eLife's original publishing model; preprinted on *bioRxiv* doi: https://doi.org/10.1101/2024.04.23.590769).

Vizzarro G., Lemopoulos A., Adams D.W.[#], **Blokesch M.**[#] (2024) *Vibrio cholerae* pathogenicity island 2 encodes two distinct types of restriction systems. ***J. Bacteriol***., 206:e00145-24. ([#]co-corresponding) (preprinted on *bioRxiv* doi: https://doi.org/10.1101/2024.04.04.588119).

➔ Highlighted as editor's pick by *J. Bacteriol.*

Loeff L., Adams D.W., Chanez C., Stutzmann S., Righi L., **Blokesch M.**, Jinek M. (2024) Molecular mechanism of plasmid elimination by the DdmDE defense system. ***Science,*** 385:188-194 (preprinted on *bioRxiv* https://doi.org/10.1101/2024.05.10.593530).

Otto S.B., Servajean R., Lemopoulos A., Bitbol A-F., **Blokesch M.** (2024) Interactions between pili affect the outcome of bacterial competition driven by the type VI secretion system. ***Curr. Biol.,*** 34:P2403-2417. (preprinted on *bioRxiv* https://doi.org/10.1101/2023.10.25.564063).

➔ Article featured as Dispatch by Liu & Unterweger (2024) Microbiology: Murder as a solution to promiscuity? in *Curr. Biol.* 34:R528-551.

Lemopoulos A., Miwanda B., Drebes Dörr N.C., Stutzmann S., Bompangue D., Muyembe Tamfum J.J., **Blokesch M.** (2024) Genome sequences of *Vibrio cholerae* strains isolated in the DRC between 2009-2012. ***Microbiol. Resour. Announc.*** 2;13:e0082723.

Vesel N., Iseli C., Guex N., Lemopoulos A., **Blokesch M.** (2023) DNA modifications impact natural transformation of *Acinetobacter baumannii.* ***Nucleic Acids Res.,*** 51: 5661-5677. doi:10.1093/nar/gkad377.

➔ Article featured as Spotlight article by Soler-Bistué 2023 in *Trends in Microbiology* (July 2021)

Proutière A.*, Drebes Dörr N.C.*, Bader L., Stutzmann S., Metzger L., Isaac S., Chiaruttini N., **Blokesch M.** (2023) Sporadic type VI secretion in 7th pandemic *Vibrio cholerae.* ***Microbiology,*** 169. doi: 10.1099/mic.0.001329. (*equal contribution)

Drebes Dörr N.C., Proutière A., Jaskólska M., Stutzmann S., Bader L., **Blokesch M.** (2022) Single nucleotide polymorphism determines constitutive versus inducible type VI secretion in *Vibrio cholerae.* ***ISME J.,*** 16:1868-1872. (pre-printed *bioRxiv*: https://doi.org/10.1101/2022.01.28.478222)

Lemos Rocha L.F., Peters K., Biboy J., Depelteau J.S., Briegel A., Vollmer W., **Blokesch M.** (2022) The VarA-CsrA regulatory pathway influences cell shape in *Vibrio cholerae.* ***PLoS Genet.,*** 18:e1010143. (pre-printed on *bioRxiv*: https://doi.org/10.1101/2021.09.09.459595)

Jaskólska M.*, Adams D.W.*$^{\#}$, **Blokesch M.**$^{\#}$ (2022) Two defence systems eliminate plasmids from seventh-pandemic *Vibrio cholerae.* ***Nature,*** 604:323-329 (*equal contribution; $^{\#}$co-corresponding)

➔Preview on this work '*Bacterial defence systems degrade plasmid invaders'* by D. Mazel (2022), *Nature,* doi: https://doi.org/10.1038/d41586-d41586-022-00871-4 (*News & views*).

➔Preview on this work '*Thanks, but no thanks: Cholera pathogen keeps incoming DNA at bay* by S. Almagro-Moreno (2022), *Cell Host & Microbe* https://doi.org/10.1016/j.chom.2022.05.011 (*Preview*).

➔Featured in *Nature*'s podcast by B. Thompson on April 6th 2022.

➔Featured *In Brief* in *Nat. Rev. Microbiol.* (2022): New DNA defence modules by Du Toit A.; doi: 10.1038/s41579-022-00737-6

➔ Article highlighted in several news channels.

➔ Classified as '*Highly Cited Paper'* by Web of Science (refers to top 1% of the academic field of Microbiology; as of Sept/Oct 2023)

Flaugnatti N.*, Isaac S.*, Lemos Rocha L.F., Stutzmann S., Rendueles O., Stoudmann C., Vesel N., Garcia-Garcera M., Buffet A., Sana T.G., Rocha E.P.C., **Blokesch M.** (2021) Human commensal gut Proteobacteria withstand type VI secretion attacks through immunity protein-independent mechanisms. ***Nat. Commun.,*** 12:5751. (*equal contribution)

➔ Article highlighted in several news channels including *The Scientist.*

Vesel N., **Blokesch M.** (2021) Pilus production in *Acinetobacter baumannii* is growth phase dependent and essential for natural transformation. ***J. Bacteriol.,*** 203:e00034-21.

➔ Article selected for Spotlight Selection section (April 2021)

➔ Highlighted as top cited article in 2022 [covering last two years].

Drebes Dörr N.C., **Blokesch M.** (2020) Interbacterial competition and anti-predatory behavior of environmental *Vibrio cholerae* strains. ***Environ. Microbiol.,*** 22:4485-4504.

➔ Featured as *News and Analysis – Genome Watch* in *Nat. Rev. Microbiol.* (2021): Getting ahead of the competition by Kane L. and Dorman M.J; doi: 10.1038/s41579-021-00599-4

Stutzmann S., **Blokesch M.** (2020) Comparison of chitin-induced natural transformation in pandemic *Vibrio cholerae* O1 El Tor strains. ***Environ. Microbiol.,*** 22: 4149-4166.

Piel D., Bruto M., James A., Labreuche Y., Lambert C., Janicot A., Chenivesse S., Petton B., Wegner K.M., Stoudmann C., **Blokesch M.**, Le Roux F. (2020) Selection of *Vibrio crassostreae* relies on a plasmid expressing a type 6 secretion system cytotoxic for host immune cells. ***Environ. Microbiol.,*** 22:4198-4211.

Matthey N., Stutzmann S., Stoudmann C., Guex N., Iseli C., **Blokesch M.** (2019) Neighbor predation linked to natural competence fosters the transfer of large genomic regions in *Vibrio cholerae*. ***eLife,*** 8:e48212.

➔ Article recommended by Faculty of 1000 (F1000) as *'New finding'* and rated as *'good'*.
➔ Article highlighted as Featured Research on the PLoS Cholera Channel.

Adams D.W., Pereira J.M., Stoudmann C., Stutzmann S., **Blokesch M.** (2019) The type IV pilus protein PilU functions as a PilT-dependent retraction ATPase. ***PLoS Genet.,*** 15:e1008393.

Adams D.W.[#], Stutzmann S., Stoudmann C., **Blokesch M.**[#] (2019) DNA-uptake pili of *Vibrio cholerae* are required for chitin colonisation and capable of kin recognition via sequence-specific self-interaction. ***Nat. Microbiol.***, 4:1545-1557. (preprinted in *bioRxiv,* doi: 10.1101/354878). ([#]co-corresponding).

➔ Featured as *Research Highlight* in *Nat. Rev. Microbiol.* (2019): Settling down on chitin by Andrea Du Toit; doi: 10.1038/s41579-019-0237-y

Metzger L.C.*, Matthey N.*, Stoudmann C., Collas E.J., **Blokesch M.** (2019) Ecological implications of gene regulation by TfoX and TfoY among diverse *Vibrio* species. ***Environ. Microbiol.,*** 21:2231-2247. (*equal contribution)

➔ Article highlighted by Wettstadt S. (2020) Should I kill or should I go: T6SS regulation networks in *Vibrio*. *Environ. Microbiol.,* 22:1-4.
➔ Article ranked as top 10% most downloaded papers among work published between Jan 2018 and Dec 2019 (according to Wiley email as of April 2020)

Matthey N.*, Drebes Dörr N.C.*, **Blokesch M.** (2018) Long-read-based genome sequences of pandemic and environmental *Vibrio cholerae* strains. ***Microbiol. Resour. Announc.***, 7:e01574-18. (*equal contribution).

Van der Henst C., Vanhove A.S., Drebes Dörr N.C., Stutzmann S., Stoudmann C., Clerc S., Scrignari T., Maclachlan C., Knott G., **Blokesch M.** (2018) Molecular insights into *Vibrio cholerae*'s intra-amoebal host-pathogen interactions. ***Nat. Commun.,*** 9:3460. doi:10.1038/s41467-018-05976-x

➔ Article recommended by Faculty of 1000 (F1000) as *'New finding'* & *'Interesting Hypothesis'* and rated as *'very good'*.

Jaskólska M., Stutzmann S., Stoudmann C., **Blokesch M.** (2018) QstR-dependent regulation of natural competence and type VI secretion in *Vibrio cholerae*. ***Nucleic Acids Res.,*** 46:10619-10634.

Stutzmann S., **Blokesch M.** (2016) Circulation of a quorum-sensing-impaired variant of *Vibrio cholerae* strain C6706 masks important phenotypes. ***mSphere,*** 1:e000098-16.

Metzger L.C., Stutzmann S., Scrignari T., Van der Henst C., Matthey N., **Blokesch M.** (2016) Independent regulation of type VI secretion in *Vibrio cholerae* by TfoX and TfoY. ***Cell Rep.,*** 15:951-958.

➔ Article recommended by Faculty of 1000 (F1000) as *'New finding'* and rated as *'very good*.

Van der Henst C., Scrignari T., Maclachlan C., **Blokesch M.** (2016) An intracellular replication niche for *Vibrio cholerae* in the amoeba *Acanthamoeba castellanii*. ***ISME J***., 10:897-910.

Borgeaud S., Metzger L.C., Scrignari T., **Blokesch M.** (2015) The type VI secretion system of *Vibrio cholerae* fosters horizontal gene transfer. ***Science****,* 347:63-67.

- ➔ Article recommended by F1000 as *'New finding'* and rated as *'exceptional'*.
- ➔ Article recommended by F1000 as *'Good for teaching'* & *'New finding'* and rated as *'very good'*.
- ➔ Article recommended by F1000 as *'Interesting hypothesis'* & '*New finding*' and rated as '*very good*'.
- ➔ Article recommended by F1000 as *'Interesting hypothesis'* & '*New finding*' and rated as '*very good*'.
- ➔ Classified as '*Highly Cited Paper'* by Web of Science (refers to top 1% of the academic field of Microbiology; as of Jan/Feb 2019)
- ➔ Article highlighted in several news channels.

Lo Scrudato M., Borgeaud S., **Blokesch M.** (2014) Regulatory elements involved in the expression of competence genes in naturally transformable *Vibrio cholerae*. ***BMC Microbiol.****,* 14:327.

Kühn J., Finger F., Bertuzzo E., Borgeaud S., Gatto M., Rinaldo A., **Blokesch M.** (2014) Glucose- but not rice-based oral rehydration therapy enhances the production of virulence determinants in the human pathogen *Vibrio cholerae*. ***PLoS Negl. Trop. Dis.****,* 8:e3347.

Steinbock L.J., Krishnan S., Bulushev R.D., Borgeaud S., **Blokesch M**., Feletti L., Radenovic A. (2014) Probing the size of proteins with glass nanopores. ***Nanoscale****,* 6:14380-14387.

Seitz P., **Blokesch M**. (2014) DNA transport across the outer and inner membrane of naturally transformable *Vibrio cholerae* is spatially but not temporally coupled. ***mBio***, 5:e01409-14.

Metzger L.C., **Blokesch M**. (2014) Composition of the DNA-uptake complex of *Vibrio cholerae*. ***Mob. Genet. Elements****,* 4:e28142.

Seitz P., Pezeshgi Modarres H., Borgeaud S., Bulushev R.D., Steinbock L.J., Radenovic A., Dal Peraro M., **Blokesch M.** (2014) ComEA Is Essential for the Transfer of External DNA into the Periplasm in Naturally Transformable *Vibrio cholerae* Cells. ***PLoS Genet.****,* 10:e1004066.

- ➔ Featured as *Research Highlight* in *Nat. Rev. Microbiol.* (2014): Bacterial physiology: ComEA pulls in DNA in *Vibrio cholerae* by Hofer U.; doi: 10.1038/nrmicro3220
- ➔ Article recommended by Faculty of 1000 as '*New finding'* and rated as *'Exceptional'*.

Venkova-Canova T., Baek J.H., FitzGerald P.C., **Blokesch M.**, Chattoraj D.K. (2013) Evidence for two Different Regulatory Mechanisms Linking Replication and Segregation of *Vibrio cholerae* Chromosome II. ***PLoS Genet.****,* 9:e1003579.

Seitz P., **Blokesch M.** (2013) DNA-uptake machinery of naturally competent *Vibrio cholerae.* ***Proc. Natl. Acad. Sci. USA***, 110:17987-92.

- ➔ Featured as *Research Highlight* in *Nat. Rev. Microbiol.* (2013): Bacterial physiology: *Vibrio* uptake apparatus by Molloy S.; doi: 10.1038/nrmicro3165

Hornung C., Poehlein A., Haack F.S., Schmidt M., Dierking K., Pohlen A., Schulenburg H., **Blokesch M.**, Plener L., Jung K., Bonge A., Krohn-Molt I., Utpatel C., Timmermann G., Spieck E., Pommerening-Röser A., Bode E., Bode H.B., Daniel R., Schmeisser C., Streit W.R. (2013) The *Janthinobacterium* sp. HH01 genome encodes a homologue of the *V. cholerae* CqsA and *L. pneumophila* LqsA autoinducer synthases. ***PLoS One****,* 8:e55045.

Lo Scrudato M., **Blokesch M**. (2013) A transcriptional regulator linking quorum sensing and chitin induction to render *Vibrio cholerae* naturally transformable. ***Nucleic Acids Res.****,* 41:3644-58.

Borgeaud S., **Blokesch M**. (2013) Overexpression of the *tcp* gene cluster using the T7 RNA polymerase / promoter system and natural transformation-mediated genetic engineering of *Vibrio cholerae.* ***PLoS One****,* 8:e53952.

Blokesch M. (2012) TransFLP – a method to genetically modify *Vibrio cholerae* based on natural transformation and FLP-recombination. ***J. Vis. Exp.,*** 68:e3761.

Lo Scrudato M., **Blokesch M**. (2012) The Regulatory Network of Natural Competence and Transformation of *Vibrio cholerae*. ***PLoS Genet.,*** 8:e1002778.

➔ Top 25% most cited *PLoS Genetics* article of all times as of August 31, 2017 (*PLoS Genetics notification*).

Blokesch M. (2012) A quorum sensing-mediated switch contributes to natural transformation of *Vibrio cholerae*. ***Mob. Genet. Elements****,* 2:224-7.

Rinaldo A., Bertuzzo E., Mari L., Righetto L., **Blokesch M.**, Gatto M., Casagrandi R., Murray M., Vesenbeckh S.M. and Rodriguez-Iturbe I. (2012) Reassessment of the 2010-2011 Haiti cholera outbreak and rainfall-driven multiseason projections. ***Proc. Natl. Acad. Sci. USA***, 109:6602-07.

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PRIORITY CLAIMS & PATENTS

Blokesch M., Jaskólska M., Adams D.W. (2021) Recombinant bacteria resistant to horizontal gene transfer and phage infection*.* ***Priority claim*** **EP21183501.2**; filed July 2nd, 2021 (European Patent Office); patent application filed on 30.06.2022.