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Languages: German (native), English (fluent)

University of Oxford
 Depts of Biology & Biochemistry
 New Biochemistry Building
 South Parks Road
 Oxford OX1 3Q
 United Kingdom

RESEARCH INTERESTS

Interference competition in bacteria
 Bacterial interactions

METHODS

Experimental microbiology
 Fluorescence microscopy

ACADEMIC HISTORY

Independent Research Fellow

5/2021 – present

Department of Biology, University of Oxford, United Kingdom

*BBSRC Discovery Fellowship***Postdoctoral Researcher**

11/2017 – 4/2021

Department of Biology, University of Oxford, United Kingdom

Postdoc Mobility Fellowship - Swiss National Science Foundation

Advisor: Prof. Kevin Foster

PhD, Life Science Zurich Graduate School, University of Zurich, Switzerland

6/2013 – 9/2017

Thesis title: "Evolution of cooperation and virulence in an opportunistic pathogen"

Advisor: Prof. Rolf Kümmerli

Master of Science, Microbiology and Immunology, ETH Zurich, Switzerland

9/2011 – 4/2013

Bachelor of Science, Biology, LMU Munich, Germany

9/2008 – 6/2011

PUBLICATIONS

Granato ET*, Smith WPJ*, Foster KR. Collective protection against the type VI secretion system in bacteria. *bioRxiv* (2022). <https://doi.org/10.1101/2022.09.12.507624> (*equal contribution)

Granato ET, Foster KR. The evolution of mass cell suicide in bacterial warfare. *Current Biology* (2020) <https://doi.org/10.1016/j.cub.2020.05.007>

Rezzoagli C, **Granato ET**, Kümmerli R. Harnessing bacterial interactions to manage infections: a review on the opportunistic pathogen *Pseudomonas aeruginosa* as a case example.

Journal of Medical Microbiology (2020) <https://doi.org/10.1099/jmm.0.001134>

Granato ET*, Meiller-Legrand TA*, Foster KR. The Evolution and Ecology of Bacterial Warfare.

Current Biology (2019) <https://doi.org/10.1016/j.cub.2019.04.024> (*equal contribution)

Rezzoagli C, **Granato ET**, Kümmerli R. *In vivo* microscopy reveals the impact of *Pseudomonas aeruginosa* social interactions on host colonization.

The ISME Journal (2019) <https://doi.org/10.1038/s41396-019-0442-8>

PUBLICATIONS (cont.)

Granato ET, Ziegenhain C, Marvig RL, Kümmerli R. Low spatial structure and selection against secreted virulence factors attenuates pathogenicity in *Pseudomonas aeruginosa*.
The ISME Journal (2018) <https://doi.org/10.1038/s41396-018-0231-9>

Granato ET, Kümmerli R. The path to re-evolve cooperation is constrained in *Pseudomonas aeruginosa*.
BMC Evolutionary Biology (2017) <https://doi.org/10.1186/s12862-017-1060-6>

Granato ET, Harrison F, Kümmerli R, Ross-Gillespie A. Do Bacterial “Virulence Factors” Always Increase Virulence? A Meta-analysis of Pyoverdine Production in *Pseudomonas aeruginosa* as a Test Case.
Frontiers in Microbiology (2016) <https://doi.org/10.3389/fmicb.2016.01952>

Kümmerli R, Santorelli L, **Granato ET**, Dumas Z, Griffin AS, West SA. Co-evolutionary dynamics between public good producers and cheats in the bacterium *Pseudomonas aeruginosa*.
Journal of Evolutionary Biology (2015) <https://doi.org/10.1111/jeb.12751>

SCHOLARSHIPS AND AWARDS

FEMS Early Career Microbiologist Award	6/2021
BBSRC Discovery Fellowship	2/2021
SNF Postdoc Mobility Fellowship	4/2019
SNF Early Postdoc Mobility Fellowship	11/2017
ASM Student and Postdoctoral Travel Award	3/2016
Research Fund of the University of Zurich (Forschungskredit)	1/2016
Student Oral Presentation Award, Evolutionary Medicine Conference, Zurich	7/2015
Scholarship of the German National Merit Foundation	9/2011

INVITED CONFERENCE PRESENTATIONS

Invited presentation Microbiology Society Focus Meeting “Evolution” , Manchester, United Kingdom	11/2022
Plenary Lecture FEMS Conference on Microbiology , Belgrade, Serbia	7/2022
Invited presentation World Microbe Forum (ASM/FEMS virtual conference)	6/2021
Invited presentation Microbial Ecology & Evolution Virtual Conference	8/2020

INVITED SEMINARS

MRC Centre for Molecular Bacteriology and Infection (CMBI) Seminar Series Imperial College London, United Kingdom (upcoming)	02/2023
Systems Biology Department Colloquium National Centre for Biotechnology, Madrid, Spain (upcoming)	02/2023
Fall Seminar Series Max Planck Institute for Evolutionary Biology, Plön, Germany	12/2021
Research Group Leader Selection Symposium Max Planck Institute for Terrestrial Microbiology, Marburg, Germany	11/2021
Molecular Microbiology Division Seminar Series University of Dundee, United Kingdom	10/2021
Department of Biology Invited Seminar Series University of Oxford, United Kingdom	10/2021
Collaborative Research Centre (CRC) AquaDiva Seminar Series Friedrich-Schiller-University, Jena, Germany	6/2021
Life Science & Medical School Seminar Series University of Warwick, United Kingdom	1/2021
Zam Iqbal Research Group Seminar European Bioinformatics Institute, Cambridge, United Kingdom	10/2020
Centre for Life's Origins and Evolution (CLOE) Summer Symposium University College London, United Kingdom	6/2020
Swiss Federal Inst. of Aquatic Science & Technology (EAWAG) Departmental Seminar ETH Zurich, Switzerland	4/2020
Junior Awards for Microbiology University of Birmingham, United Kingdom	6/2019

CONFERENCE ORGANIZATION

Microbial Ecology & Evolution (MEEhubs) 2023 <i>Co-lead organization of international conference</i>	6/2022 – present
18 th Congress of the European Society for Evolutionary Biology (ESEB), Prague, Czech Republic <i>Organization of conference symposium</i> "The art of microscopic war – interference competition in microbes"	8/2022

CONTRIBUTED CONFERENCE PRESENTATIONS

18 th Congress of the European Society for Evolutionary Biology (ESEB), Prague, Czech Republic <i>Poster presentation</i>	8/2022
Microbiology Society Annual Conference, Edinburgh, United Kingdom <i>Oral presentation (event cancelled due to COVID19)</i>	4/2020
International μ BOX Meeting at Oxford, United Kingdom <i>Poster presentation</i>	9/2019

CONTRIBUTED CONFERENCE PRESENTATIONS (cont.)

17 th Congress of the European Society for Evolutionary Biology (ESEB), Turku, Finland <i>Oral presentation</i>	8/2019
International Meeting on Phenotypic Heterogeneity and Sociobiology of Bacterial Populations (SPP1617), Hohenkammer, Germany <i>Poster presentation</i>	3/2019
17 th International Symposium on Microbial Ecology (ISME), Leipzig, Germany <i>Poster presentation</i>	8/2018
1 st International TRANSIT workshop on Cross-disciplinary Research, York, United Kingdom <i>Oral presentation</i>	4/2018
16 th Congress of the European Society for Evolutionary Biology (ESEB), Groningen, Netherlands <i>Oral presentation</i>	8/2017
116 th General Meeting of the American Society of Microbiology (ASM), Boston, USA <i>Poster presentation</i>	6/2016
Behaviour, Ecology, Environment and Evolution Meeting, University of Zurich, Switzerland <i>Oral presentation</i>	3/2015
15 th Congress of the European Society for Evolutionary Biology (ESEB), Lausanne, Switzerland <i>Poster presentation</i>	8/2015
Evolutionary Medicine Conference, Zurich, Switzerland <i>Oral presentation</i>	7/2015
15 th International Symposium on Microbial Ecology (ISME), Seoul, South Korea <i>Poster presentation</i>	8/2014
Workshop in Evolutionary Biology, Guarda, Switzerland <i>Oral presentation</i>	6/2014

TEACHING

Lead course organizer and examiner , Experimental Evolution Department of Biology, University of Oxford	2/2019 - present
Teaching assistant , Evolutionary Microbiology Faculty of Science, University of Zurich	2/2014 – 4/2017
Teaching assistant , General Microbiology Department of Biology, LMU Munich	3/2010

SUPERVISION AND MENTORING

Transfer of status Assessor , Department of Biology, University of Oxford Formal examination and assessment of Dphil student	12/2022
Mentoring Program, Department of Biology , University of Oxford Co-development of a mentoring program between postdocs and PhD students; Regular mentoring activity	11/2019- present
Supervision of Master student , University of Oxford Christian Kirk	10/2021 - 5/2022

SUPERVISION AND MENTORING (cont.)

Supervision of Bachelor student, University of Oxford Christian Kirk	4/2020 - 4/2021
MEEVirtual Mentoring Program Mentoring of junior researchers attending a scientific conference	8/2020
PhD Mentoring Program, Life Science Graduate School Zurich Mentoring of junior PhD students. Annika Hausmann, Arturo Rinaldi, Weronika Barcik	6/2014 – 9/2017
Supervision of laboratory internship Isa Moreno	1/2015- 4/2015

INSTITUTIONAL AND SUPPORT ACTIVITIES

Personnel Committee – Research Staff Representative Department of Biology, University of Oxford, United Kingdom	10/2021 - present
FutureProfs, Department of Biochemistry, University of Oxford, United Kingdom Founder of a peer-to-peer support group among postdoctoral researchers working towards an academic career	11/2019 - present
Early Career Researcher Network, University of Oxford, United Kingdom Organization of scientific, social, and training events for early career researchers Personnel Committee Representative; Social Media & Outreach Representative	9/2018- 07/2021
Committee for Appointment of Faculty, University of Zurich, Switzerland Representative for mid-level faculty	2017

OUTREACH

Twitter Active Twitter profile with >23'000 followers, regular interactions with general public and dissemination of scientific content.	2010 - present
'Tidbits of Research' Podcast Interview about my research and life as a scientist, aimed at a general audience	5/2022
FEMS Podcast – 'Microbes and Us' Interview about my research, career development in academia and more	7/2021
Microbial Literacy Project Co-development of a child-centric microbiology education framework for use in UK education Topic: Microbial Communities and Social Behaviour	9/2020 - 4/2021
Skype A Scientist Skyping with classrooms around the world as part of the "Skype A Scientist" initiative	4/2019 – 6/2020
Article in <i>New Scientist</i> magazine Contributed to popular science article on my recent publication	3/2020
Chalk Talk Seminar, Dunn School of Pathology, University of Oxford, United Kingdom Scientific presentation for a general audience, run by the <i>Oxford Scientist</i> magazine	11/2019

OUTREACH (cont.)

Science Jam , Department of Biology, University of Oxford, United Kingdom Organization of - and participation in – an intradepartmental outreach event	5/2019
Oxford Scientist School , Oxford, United Kingdom Guest judge for science writing competition for Secondary school pupils	1/2019
Teaching on Twitter Lecturer for the 1 st worldwide online open access microbiology course (“EUROmicroMOOC”) Delivery of online lecture on “Bacterial cooperation”, accessible to a general audience via Twitter.	10/2018
‘Bacterial World’ Exhibition Contribution of microscopy images to exhibition in the Natural History Museum of Oxford	10/2018
UNIQ Summer School , University of Oxford, United Kingdom Demonstrator for practical classes on antibiotics, delivered to state school students.	8/2018
Science Lab Zurich , Faculty of Science, University of Zurich, Switzerland Organization and execution of guided tour through microbiology laboratories for local high school students.	2/2017
International Physics Olympiad , Faculty of Science, University of Zurich, Switzerland Organization and execution of guided tour through microbiology laboratories for international high school students.	7/2016
Info Day Biology , Department of Biology, ETH Zurich, Switzerland Oral presentation of Master degree in Biology at ETH to local high school students.	3/2012
Open Day Biochemistry , Max-Planck-Institute of Biochemistry, Martinsried, Germany Assisting in presentation of biochemistry research to the general public.	10/2010

PEER REVIEW ACTIVITY

Journals

- Nature Microbiology
- Nature Communications
- Current Biology
- eLife
- mBio
- ISME
- Proc Soc B
- iScience
- Communications Biology
- PLOS One
- Microbiology
- Biofilm
- FEMS Microbial Ecology
- BMC Evolutionary Biology
- Microbial Ecology

Funding agencies

- Swiss National Science Foundation (SNF)
- UKRI - Medical Research Council (MRC)
- UKRI - Biotechnology and Biological Sciences Research Council (BBSRC)

ADVANCED TRAINING (selection)

Leadership Training (24 h), University of Oxford, United Kingdom	9/2022
Race Awareness Training (1.5 h), University of Oxford, United Kingdom	7/2022

Mentorship Training (4 hours), University of Oxford, United Kingdom	10/2019
Mentorship Training (30 hours), Life Science Zurich Graduate School, Zurich, Switzerland	1/2016
Voice Training and Presentation Skills (30 hours), Center for Advanced Training, Zurich, Switzerland	5/2014
Project Management for Research (30 hours), Center for Advanced Training, Zurich, Switzerland	10/2013