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South Parks Road
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United Kingdom

RESEARCH INTERESTS

- Interference competition in bacteria
- Microbial cooperation
- Virulence evolution
- Social evolution

ACADEMIC HISTORY

Postdoctoral Researcher, Department of Zoology, University of Oxford, United Kingdom 11/2017 – present
Advisor: Prof. Kevin Foster

Ph.D., 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
Master Thesis in Microbiology (grade 6.0 - „excellent“)

Bachelor of Science, Biology, LMU Munich, Germany 9/2008 – 6/2011
Bachelor Thesis in Microbiology (grade 1.0 - „excellent“)

PUBLICATIONS

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>

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>

PUBLICATIONS (cont.)

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>

INVITED PRESENTATIONS

Life Science & Medical School Seminar Series University of Warwick, United Kingdom (upcoming)	1/2021
Zam Iqbal Research Group Seminar European Bioinformatics Institute (EMBL-EBI), Cambridge, United Kingdom (delivered online)	10/2020
MEEVirtual 2020 - Microbial Ecology & Evolution Virtual Conference Organizers: Sara Mitri (UNIL Lausanne), Sam Brown (Georgia Tech), Wolfram Moebius (Univ. of Exeter), David Baltrus (Univ. of Arizona)	8/2020
Summer Symposium, Centre for Life’s Origins and Evolution (CLOE) University College London, United Kingdom (delivered online)	6/2020
Departmental Seminar, Swiss Federal Inst. of Aquatic Science & Technology (EAWAG) ETH Zurich, Switzerland (delivered online)	4/2020
Junior Awards for Microbiology University of Birmingham, United Kingdom	6/2019

CONTRIBUTED PRESENTATIONS

Microbiology Society Annual Conference, Edinburgh, United Kingdom Oral presentation (meeting cancelled due to Coronavirus)	4/2020
International μ Box Meeting at Oxford – Universities of Basel, Switzerland & Oxford, United Kingdom <i>Poster presentation</i>	9/2019
17 th Congress of the European Society for Evolutionary Biology (ESEB), Turku, Finland Oral presentation	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 Oral presentation	4/2018

CONTRIBUTED PRESENTATIONS (cont.)

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

SCHOLARSHIPS AND AWARDS

SNF Postdoc Mobility Fellowship [82'500 CHF]	4/2019
<i>The ISME Journal</i> Cover Art Competition 2018, Top 3 Finalist	8/2018
SNF Early Postdoc Mobility Fellowship [81'750 CHF]	11/2017
ASM Student and Postdoctoral Travel Award [750 USD]	3/2016
Student Oral Presentation Award (Evolutionary Medicine Conference, Zurich)	7/2015
Research Fund of the University of Zurich (Forschungskredit) [86'000 CHF]	1/2016 – 2/2017
Scholarship of the German National Merit Foundation [12'000 EUR]	9/2011 – 4/2013
Award for graduating in the top 10% of class, Bachelor of Science, LMU Munich, Germany	6/2011

TEACHING ACTIVITIES

Course organizer , Experimental Evolution Organization and execution of a yearly 2-weeks laboratory course for Bachelor students; grading of written reports; supervision of four teaching assistants. Department of Zoology, University of Oxford	2/2019- present
Teaching assistant , Evolutionary Microbiology Organization and execution of a yearly 4-weeks full-time laboratory course for Bachelor and Master students; grading of written and oral reports. Faculty of Science, University of Zurich	2/2014 – 4/2017
Teaching assistant , General Microbiology Assistance in execution of a 2-weeks laboratory course for Bachelor students. Department of Biology, LMU Munich	3/2010

SUPERVISION AND MENTORING

- Supervision of Bachelor student**, University of Oxford 4/2020 - present
Christian Kirk
- Mentoring Program, Department of Zoology**, University of Oxford, United Kingdom 11/2019- present
Co-development of a mentoring program between postdoctoral researchers and PhD students
Regular mentoring activity
- PhD Mentoring Program, Life Science Graduate School Zurich** 6/2014 – 9/2017
Mentoring of junior PhD students
Annika Hausmann, Arturo Rinaldi, Weronika Barcik
- Supervision of laboratory internship** 1/2015- 4/2015
Isa Moreno

INSTITUTIONAL AND SUPPORT ACTIVITIES

- FutureProfs**, Department of Biochemistry, University of Oxford, United Kingdom 11/2019- present
Development of a peer-to-peer support group among postdoctoral researchers aiming for an academic career
- Early Career Researcher Network**, University of Oxford, United Kingdom 9/2018 – present
Organization of scientific, social, and training events for early career researchers
Social Media & Outreach Representative
- Committee for Appointment of Faculty**, University of Zurich, Switzerland 2017
Representative for mid-level faculty

OUTREACH

- SkypeAScientist** 4/2019 - present
Skyping with class rooms around the world as part of the SkypeAScientist initiative.
- Twitter** 2010 - present
Active Twitter profile with >8000 followers, regular interactions with general public & dissemination of scientific content.
- Article in popular science magazine** 3/2020
Interviewed by *New Scientist* magazine and contributed to article on my recent publication
<https://www.newscientist.com/article/2236441-bacteria-sacrifice-themselves-when-under-attack-to-save-their-colonies/>
- Chalk Talk Seminar** 11/2019
5 minute presentation for a general audience, run by the *Oxford Scientist* magazine
Dunn School of Pathology, University of Oxford, United Kingdom
- ScienceJam** 5/2019
Organization of - and participation in - a departmental “science jam” event where researchers presented their work in an accessible and creative way
Department of Zoology, University of Oxford, United Kingdom

OUTREACH (cont.)

Oxford Scientist school Guest judge for science writing competition for Secondary school pupils Oxford, United Kingdom	1/2019
Teaching on Twitter Lecturer for the 1 st worldwide online open access microbiology course (“EUROmicroMOOC”) Preparation and 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 Demonstrator for practical classes on antibiotics, delivered to state school students. Department of Biochemistry, University of Oxford, United Kingdom	8/2018
Science Lab Zurich Organization and execution of guided tour through microbiology laboratories for Swiss high school students. Faculty of Science, University of Zurich, Switzerland	2/2017
International Physics Olympiad Organization and execution of guided tour through microbiology laboratories for international high school students. Faculty of Science, University of Zurich, Switzerland	7/2016
Info Day Biology Oral presentation of Master in Biology at ETH to Swiss high school students. Department of Biology, ETH Zurich, Switzerland	3/2012
Open Day Biochemistry Assisting in presentation of biochemistry research to the general public. Max-Planck-Institute of Biochemistry, Martinsried, Germany	10/2010

PEER REVIEW ACTIVITY

Journals

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

Grant applications

- Swiss National Science Foundation

COURSEWORK AND TRAINING (selection)

Mentorship Training (4 hours) Department of Zoology, University of Oxford, United Kingdom	10/2019
Public Engagement with Research (2 hours) Department of Zoology, University of Oxford, United Kingdom	2/2019
Advanced Microscopy Course (20 hours) Micron Advanced Imaging Facility, University of Oxford, United Kingdom	11/2017
Mentorship Training (30 hours) Life Science Zurich Graduate School, Zurich, Switzerland	1/2016
Logic and Reasoning for Scientists (30 hours) Life Science Zurich Graduate School, Zurich, Switzerland	3/2015
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
Leadership Skills (30 hours) Center for Advanced Training, Zurich, Switzerland	11/2013

PERSONAL SKILLS

Languages:	German (native) English (fluent) Italian (beginner) Dutch (beginner) French (beginner)	Digital Competences:	MS Office Suite R, MatLab Adobe InDesign Zotero Reference Manager ZEN imaging software FIJI image analysis software
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