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Departments of Zoology & Biochemistry
New Biochemistry Building
South Parks Road
Oxford OX1 3QU
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.
bioRxiv (2020) doi: 10.1101/2020.02.25.959577

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) doi: 10.1099/jmm.0.001134

Granato ET*, Meiller-Legrand TA*, Foster KR. The Evolution and Ecology of Bacterial Warfare.
Current Biology (2019) doi: 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) doi: 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) doi: 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) doi: 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) doi: 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) doi: 10.1111/jeb.12751

INVITED PRESENTATIONS

Microbial Ecology & Evolution virtual conference (delivered online, upcoming) 8/2020
Organizers: Sara Mitri (UNIL Lausanne), Sam Brown (Georgia Tech), Wolfram Moebius (Univ. of Exeter), David Baltrus (Univ. of Arizona)

Summer Symposium, Centre for Life’s Origins and Evolution (CLOE) 6/2020
University College London, United Kingdom (delivered online)

Departmental Seminar, Swiss Federal Inst. of Aquatic Science & Technology (EAWAG) 4/2020
ETH Zurich, Switzerland (delivered online)

Junior Awards for Microbiology 6/2019
University of Birmingham, United Kingdom

CONTRIBUTED PRESENTATIONS

Microbiology Society Annual Conference, Edinburgh, United Kingdom 4/2020
Oral presentation (meeting cancelled due to Coronavirus)

International μ Box Meeting at Oxford – Universities of Basel, Switzerland & Oxford, United Kingdom 9/2019
Poster presentation

17th Congress of the European Society for Evolutionary Biology (ESEB), Turku, Finland 8/2019
Oral presentation

International Meeting on Phenotypic Heterogeneity and Sociobiology of Bacterial Populations 3/2019
(SPP1617), Hohenkammer, Germany
Poster presentation

17th International Symposium on Microbial Ecology (ISME), Leipzig, Germany 8/2018
Poster presentation

1st International TRANSIT workshop on Cross-disciplinary Research, York, United Kingdom 4/2018
Oral presentation

16th Congress of the European Society for Evolutionary Biology (ESEB), Groningen, Netherlands 8/2017
Oral presentation

CONTRIBUTED PRESENTATIONS (cont.)

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 undergraduate 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 full-time laboratory course for Bachelor students, marking of final exams. Department of Biology, LMU Munich	3/2010

SUPERVISION AND MENTORING

- Supervision of undergraduate student**, University of Oxford
Christian Kirk 4/2020 - present
- 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 >6000 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 Seminars** 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.)

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

PEER REVIEW ACTIVITY

Journals

- mBio
- ISME
- Proc Soc B
- Comms Biol
- PLOS ONE
- Microbiology
- Biofilm
- FEMS Microb Ecol
- BMC Evol Biol

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