

RICHARD GREWELLE

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APPOINTMENTS

Stanford University *October 2022 - present*
Post-doctoral Scholar, Prof. John Pringle
Stanford University *June 2022 - September 2022*
Post-doctoral Scholar, Prof. Giulio De Leo

EDUCATION

Stanford University *September 2016 - June 2022*
PhD, Biology
Ecole Polytechnique Federale de Lausanne *May 2019 - August 2019*
Visiting Scholar, ECHO Lab of Prof. Andrea Rinaldo
University of Kentucky *August 2012 - May 2016*
B.S. Hons Biology, B.S. Hons Chemistry, B.S. Hons Mathematics

SELECT AWARDS

Samuel Karlin Prize in Mathematical Biology, Stanford University 2021
Top graded reviewer, *Annals of Internal Medicine* 2021
ARCS Fellowship, William K. Bowes Jr. Foundation Scholar 2020-2021
Excellence in Teaching Award, Biology Dept. Stanford University 2018
Baldrige Award for best student proposal, Myers Trust 2018
Stanford Graduate Fellowship 2016-2019
Chellgren Fellow, University of Kentucky 2014-2016
Patterson Scholar (full scholarship), University of Kentucky 2012-2016
Valedictorian, Lone Oak HS 2012
National Merit Scholar 2012
National AP Scholar 2012

AWARDED RESEARCH GRANTS

Sea Otter Foundation & Trust (\$3000) 2019
Ecole Polytechnique Federale de Lausanne-Stanford Exchange Program Fellowship (\$11000) 2019
Sea Otter Foundation & Trust (\$2500) 2018
Myers Oceanographic and Marine Biology Trust (\$2500) 2018
Undergraduate Research Grant, University of KY (\$2000) 2015
Undergraduate Research Grant, University of KY (\$2000) 2014

JOURNAL REFEREE

Annals of Internal Medicine, Fish and Fisheries, PloS One, Frontiers Public Health, Marine Biology, PeerJ, Scientific Reports, Fisheries

MEDIA COVERAGE

London Times, New Scientist, UK Sun, UK Daily Mail

INVITED TALKS

Decades of sea otter death caused by a heat-sensitive ocean parasite, PG Museum of Natural History 2023
Controlling Schistosomiasis with gene drive snail immunity, Foundations for the NIH 2023
Estimating the global infection fatality rate of COVID-19, ARCS Foundation 2020 & 2021
Sea Otters: a parasite's new host, PG Museum of Natural History 2019
Engineering resistance to schistosomiasis, Merck Global Health Institute 2018

MENTORED STUDENTS

Samantha Hamilton, Johns Hopkins University	2022-present
Mia Navarro, UCLA/Stanford	2020-present
Raphael Brosula, Stanford University	2020
Arjun Patrawala, Mountain View High School	2019-2020
Natalie Rhoades, University of Edinburgh	2019-2020
Chloe Rickards, Stanford University/UC Santa Cruz	2017-2019

PUBLICATIONS

1. **Grewelle RE**, Greenwald K, Young C, Miller M (2023). Molecular and morphological confirmation of *Profilicollis altmani* as the cause of acanthocephalan peritonitis in California sea otters (*Enhydra lutris nereis*). *International Journal for Parasitology: Parasites and Wildlife*
doi: <https://doi.org/10.1016/j.ijppaw.2023.08.003>
2. **Grewelle RE**, Mansfield EJ, Micheli F, De Leo GA (2023). Data-poor ecological risk assessment of multiple stressors. *Ecological Informatics* doi: <https://doi.org/10.1016/j.ecoinf.2023.102198>
3. **Grewelle RE**, Perez-Saez J, Tycko J, Namigai EO, Rickards C, De Leo GA (2022). Modeling the efficacy of CRISPR gene drive for snail immunity on schistosomiasis control. *PLoS NTD*
doi: <https://doi.org/10.1371/journal.pntd.0010894>
4. **Grewelle RE**, Mansfield EJ, Micheli F, De Leo GA (2021). Redefining risk in data-poor fisheries. *Fish Fish* doi: 10.1111/(ISSN)1467-2979
5. Aalto EA, Lafferty KD, Sokolow SH, **Grewelle RE**, Ben-Horin T, et al. (2020). Models with environmental drivers offer a plausible mechanism for the rapid spread of infectious disease outbreaks in marine organisms. (2020) *Sci. Rep.* doi: <https://doi.org/10.1038/s41598-020-62118-4>
6. Maier T, Wheeler NJ, Namigai EKO, Tycko J, **Grewelle RE**, et al. (2019). Gene drives for schistosomiasis transmission control. *PLOS NTD* doi: 10.1371/journal.pntd.0007833
7. Hime PM, Hotaling S, **Grewelle RE**, O'Neill EM, Voss SR, Shaffer HB, Weisrock DW (2016). The influence of locus number and information content on species delimitation: an empirical test case in an endangered Mexican salamander. *Mol Ecol* doi:10.1111/mec.13883

Submitted/Working Manuscripts

8. **Grewelle RE**. Larger viral genome size facilitates emergence of zoonotic diseases. bioRxiv 2020.03.10.986109; doi: <https://doi.org/10.1101/2020.03.10.986109> (Nature Genetics)
9. **Grewelle RE**, De Leo GA. Estimating the early global infection fatality rate of covid-19. medRxiv 2020.05.11.20098780; doi: <https://doi.org/10.1101/2020.05.11.20098780> (Emerging Infectious Diseases)
10. **Grewelle RE**, Young C, Gobble C, Greenwald K, De Leo GA, Miller M. Long-term change and seasonal spillover of fatal *Profilicollis altmani* infection in California sea otters from avian and crustacean hosts. (Ecological Monographs)
11. Wilson KL, **Grewelle RE**, Gupta T, Kim SH, Katsumoto TR. Aromatase inhibitor-induced arthralgia ameliorated by continuous glucose monitor-guided mediterranean diet and lifestyle intervention: a case report and review of the literature. (Frontiers Oncology)

* indicates joint first authorship
mentee authorship

Manuscripts in preparation

12. Navarro M, **Grewelle RE**, Pourtois J, Losapio G, Hazel A, De Leo GA. Social structures modulate SARS-COV-2 hospitalizations and inform long-term vaccination strategy in European countries.
13. Burford BP*, **Grewelle RE*** Rhoades N, De Leo GA, Denny MW. Squid recruitment to spawning grounds is associated with the lunar cycle.
14. **Grewelle RE***, Wilson KL*, Brantley-Sieders D. Statistical Bliss: a unified treatment of dose-response.

SERVICE & LEADERSHIP POSITIONS HELD

Session Chair, Western Society of Naturalists	2022
Co-created Hopkins Marine Station Service Awards, HMS Stanford University	2022
Session Chair, Western Society of Naturalists	2021
Student Services Officer Hiring Committee, HMS Stanford University	2021
Scientific Advising Committee, Pacific Grove Natural History Museum	2020
SURA Mentorship Program, Stanford University	2019-Present
Student-faculty Committee, HMS Stanford University	2018-2020
Treasurer, HMS Graduate Student Org Stanford University	2018-2020
Lecturer Hiring Committee, HMS Stanford University	2018
Graduate Studies Committee, Biology Dept Stanford University	2017-2018
Student Body Rep., President's Sustainability Advisory Committee, University of KY	2015-2016
Director, Student Sustainability Council, University of KY	2014-2015
Field Crew Leader, US Geological Survey	2014
President, Greenthumb Student Group, University of KY	2013-2014

TEACHING

Bio 3: Frontiers in Marine Biology <i>Guest lecturer in undergraduate course</i>	Spring & Fall 2021, Stanford University
Biohopk 143/243: Quantitative Methods for Marine Ecology and Conservation Stanford University <i>Instructor in mixed undergraduate and graduate course (co-designed and taught curriculum with advisor, Giulio De Leo)</i>	Winter 2021 & 2022,
Bio 60: Intro to Problem Solving in Biology <i>TA and Section Leader in undergraduate course</i>	Spring 2017, Stanford University
Biohopk 173/273: Marine Conservation <i>TA in mixed undergraduate and graduate course</i>	Spring 2018, Stanford University

ADDITIONAL SKILLS

Computer Languages	Python, R, C++, HTML, CSS, Javascript, MATLAB, Perl, SQL
Software & Tools	LaTeX, Microsoft Office, Mathematica, Unix, Bash, GIMP, Chimera
Certifications	AAUS Scientific Diver, CPR, First Aid