PETER J FLYNN

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EDUCATION

University of Chicago — Chicago, IL
PhD Candidate in Evolutionary Biology — Current GPA: 4.00
Advisor: Dr. Corrie Moreau — Expected graduation: August 2022
Dissertation: Redefining the expanding diversity and co-evolutionary patterns in viral and bacterial communities within ants
College Teaching Certificate, Spring 2021

Yale University — New Haven, CT
Bachelor of Science in Ecology and Evolutionary Biology, 2014 — Cumulative GPA: 3.63

PUBLICATIONS

9. **Flynn, P. J.**, Salmier, A., Duplais, C., Lavergne, A., and Moreau, C.S. *In Prep.* Exploring the unprecedented diversity and co-evolutionary patterns within the ant virosphere.
8. **Flynn, P. J.** , D'Amelio, C., Russell, J.A., and Moreau, C.S. (2021), Localization of bacterial communities in gut compartments across *Cephalotes* turtle ants. Applied and Environmental Microbiology, doi:10.1128/AEM.02803-20
7. **Flynn, P. J.** and Moreau, C.S. (2019), Assessing the diversity of endogenous viruses throughout ant genomes. Frontiers in Microbiology, doi:10.3389/fmicb.2019.01139
6. Dennis, P.W.*,**Flynn, P. J.***, de Souza, W.M., Singer, J.B., Moreau, C.S., Wilson, S.J. and Gifford, R.J. (2018), Insights into circovirus host range from the genomic fossil record. Journal of Virology, doi:10.1128/JVI.00145-18 *authors contributed equally
5. Queenan A.M., Dowling D.J., Cheng, W.K., Fae, K., Fernandez J., **Flynn, P.J.**, Joshi S., Brightman, S.E., Ramirez J., Serroyen, J., Wiertsema S., Fortanier, A.,van den Dobbelsteen, G., Levy, O., and Poolman, J. (2018). Increasing FIM2/3 antigen-content improves efficacy of Bordetella pertussis vaccines in mice in vivo without altering vaccine-induced human reactogenicity biomarkers in vitro. Vaccine, doi:10.1016/j.vaccine.2018.11.028
4. Sanchez-Schmitz, G., Stevens, C.R., Bettencourt, I.A., **Flynn, P.J.**, Schmitz-Abe, K., Metser G., Hamm D., Jensen, K.J., Benn, C., and Levy, O.(2018). Microphysiologic human tissue constructs reproduce autologous age-specific BCG and HBV primary immunization in vitro. Frontiers in Immunology, doi:10.3389/fimmu.2018.02634
3. **Flynn, P. J.** (2017), Digest: Using transcriptomics to map parental care behavior in burying beetles. Evolution, 71: 2132–2133. doi:10.1111/evo.13301
2. Pearcy, A, Gibson, M, Balmagia, J, Berkey, J, **Flynn, P**, and Viljoen, S. (2013). Disturbance effects on a South African river and the impact on the Mutale River Crocodylus niloticus population. Proceedings of the 22nd Working Meeting of the IUCN-SSC Crocodile Specialist Group. IUCN: Gland, Switzerland. 2013 Proceedings
1. **Flynn, P. J.** (2012). "Zaglossus bartoni" (On-line), Animal Diversity Web. animaldiversity.org/Zaglossus-bartoni

SELECTED TALKS

9. **Flynn, P.J.** 'A comparative evolutionary analysis of endogenous viruses throughout Insecta'. Grainger Bioinformatics Center Annual Symposium; Virtual. November 19, 2020. Presentation.
8. **Flynn, P.J.**, D'Amelio, C., Russell, J.A., and Moreau, C.S. 'Localization of bacterial communities in gut compartments across Cephalotes ants'. Entomology Meeting 2020; Virtual. November 17, 2020. Presentation.

7. **Flynn, P.J.**, D'Amelio, C., Russell, J.A., and Moreau, C.S. 'Localization of bacterial communities in gut compartments across Cephalotes ants'. Society of Systematic Biologists Standalone Meeting 2020; Gainesville, Florida. January 4, 2020. Poster.
6. **Flynn, P.J.**, D'Amelio, C., Russell, J.A., and Moreau, C.S. 'Localization of bacterial communities in gut compartments across Cephalotes ants'. Evolution Meeting 2019; Providence, Rhode Island. June 22, 2019. Presentation.
5. **Flynn, P.J.**, 'Lightning Talk: Understanding the Viromes of Ants'. 4th Annual Viromics Workshop 2019; Columbus, Ohio. May 7, 2019. Presentation.
4. **Flynn, P.J.** 'Comparative assessment of endogenous viruses throughout ant genomes'. Entomological Society of America Meeting 2018; Vancouver, BC Canada. November 10, 2018. Presentation.
3. **Flynn, P.J.** 'Comparative assessment of endogenous viruses throughout ant genomes'. Presentation at Pasteur Institute of French Guiana Seminar Series; Cayenne, French Guiana. April 1, 2018. Presentation.
2. Sanchez-Schmitz, G., and **Flynn, P. J.** (2016). 'In Vitro Vaccination Of A Microphysiologic Human Tissue-Construct'. Judah Folkman Research Day, Boston, MA. Poster and Presentation.
1. **Flynn, P. J.**(2014). 'The Phylogeographic patterns of Ixodes scapularis populations throughout the Northeastern United States'. Senior Symposium, New Haven, CT. Presentation.

GRANTS, FELLOWSHIPS, AND HONORS

University of Chicago Henry Hinds Fund Award ($2500), 2018, 2021
Grainger Bioinformatics Center at the Field Museum Award ($6375), 2020
NSF Graduate Research Fellowship ($138,000), 2016-2020
OSU Travel Award: Viromics Workshop ($500), 2019
University of Chicago, CEB Summer Travel Fund ($1250 each), 2017, 2018
Pritzker Lab at the Field Museum Research Award ($4000 each), 2017, 2019
Boston Children's Hospital On-the-Spot Recognition Award ($500), 2016
NSF International Research Experience for Students Research Fellowship ($2500), 2013

RESEARCH EXPERIENCES

PhD Candidate in Committee on Evolutionary Biology — University of Chicago, Chicago, IL
Ant viral and bacterial eco-evolutionary dynamics research — Sept 2016-present

Research Assistant in Levy Laboratory — Boston Children's Hospital, Boston MA
Ontogeny of immune response to vaccines research — June 2014-June 2016

Undergraduate Researcher in Diuk-Wasser Laboratory — Yale University, New Haven CT
Tick eco-evolutionary dynamics research — Sept 2013-May 2014

Resident Ecologist — Kruger National Park, South Africa
Various ecological field studies — May 2013-August 2013

Undergraduate Researcher in Near Laboratory — Yale University, New Haven CT
Fish phylogeogrography research — Jan 2011-Jan 2013

TEACHING EXPERIENCE

Spring 2021 – College Teaching Certificate from UChicago Teaching Center
Autumn 2020 – Teaching Assistant for *Ecology and Evolution* at UChicago
Autumn 2019 – Teaching Assistant for *Public and Private Lives of Insects* at UChicago

VOLUNTEER WORK AND OUTREACH

Indiana Dunes Learning Center, Citizen Science, 2021-present, *Resident Scientist*
Darwin Cluster Keystone Mentor Program, 2020-present, *Mentor*
CEB DEI Committee, 2020-present, *Member*
UChicago LGBT Mentorship Program, *Mentor* 2018-present
UChicago Biological Sciences Diversity Committee, *Member* 2017-present
Dozin' with the Dinos at the Field Museum, *Presenter Scientist* 2017-present
LGBT at the Field Museum Group, 2016-present, *Working Group*

Meet-A-Scientist at the Field Museum, 2016-present, *Volunteer*
LGBT OStem at the University of Chicago, 2016-present *Member*
Journal of Emerging Investigators, 2015-2017 *Mentor*

WORKSHOPS

Fundamentals of Teaching in Science and Engineering Workshop Series, 2018-2020
OSU 4th Annual Viromics Workshop, 2019
Ant Course: French Guiana, 2018
Viral Bioinformatics & Genomics Training Course at the University of Glasgow, 2017
Computational Biology at the Field Museum Workshop, 2017
Marine Biological Laboratories Quantitative Biology Bootcamp, 2016

MEMBERSHIPS

International Union for the Study of Social Insects, North American Section
American Society for Microbiology
Society of Systematic Biologists
Field Museum Women in Science
Society for the Study of Evolution
Entomological Society of America

REVIEWED JOURNALS

Frontiers in Microbiology
Journal of Evolutionary Biology
The Science of Nature (Naturwissenschaften)

SKILLS

Languages & Software: R, Bash, Python, FigTree, BEAST, MrBayes, Mesquite, PhyloSeq, ggplot2, Vegan, Geneious, MEGA, QIIME2, RAxML, Viromic and Microbial Bioinformatic Pipelines

REFERENCES

Dr. Corrie Moreau
Martha N. and John C. Moser Professor of Arthropod Biosystematics and Biodiversity, Cornell University
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Dr. Maureen Coleman
Associate Professor, Department of the Geophysical Sciences, University of Chicago
mlcoleman@uchicago.edu

Dr. Cathy Pfister
Professor, Department of Ecology and Evolution, University of Chicago
cpfister@uchicago.edu