

FILIP RUZICKA

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PROFESSIONAL EXPERIENCE

- 2023– Independent research fellow (Marie Skłodowska Curie IST BRIDGE Fellowship)
Host: Beatriz Vicoso
Institute of Science and Technology Austria (ISTA)
- 2019–23 Postdoc
Supervisor: Dr Tim Connallon
Monash University (Melbourne, Australia)

EDUCATION

- 2015–18 PhD in Evolutionary Genetics “The genetics and evolutionary dynamics of sexually antagonistic polymorphisms in *Drosophila melanogaster*”
Supervisors: Prof. Max Reuter and Kevin Fowler
University College London (London, UK)
- 2012–13 MRes Biodiversity, Evolution & Conservation
Institute of Zoology, Natural History Museum (London, UK)
University College London (London, UK)
- 2009–12 Bsc Biological Sciences
University College London (London, UK)

PUBLICATIONS

- 2022 **Ruzicka, F.**, Holman, L., Connallon, T. (2022). Polygenic signals of sex differences in selection in humans from the UK Biobank. *PLOS Biology*, 20:e3001768
- Ruzicka, F.**, Reuter, M. (2022). Evolutionary Genetics: Dissecting a sexually antagonistic polymorphism. *Current Biology (Dispatch)*, 35:PR828-R830
- Connallon, T., Beasley, I.J., McDonough, Y., **Ruzicka, F.** (2022). How much does the unguarded X contribute to sex differences in lifespan? *Evolution Letters* 6:319–329
- Ruzicka, F.**, Connallon, T. (2022). An unbiased test reveals no enrichment of sexually antagonistic polymorphisms on the human X chromosome. *Proceedings of the Royal Society B: Biological Sciences* 289:202123142
- 2021 **Ruzicka, F.**, Connallon T., Reuter, M. (2021). Sex differences in deleterious mutational effects in *Drosophila melanogaster*: combining quantitative and population genetic insights. *Genetics* 219:iyab143
- Jardine, M., **Ruzicka, F.**, Diffley, C., Fowler, K., Reuter, M. (2021). A non-coding indel polymorphism in the *fruitless* gene of *Drosophila melanogaster* exhibits antagonistically pleiotropic effects. *Proceedings of the Royal Society B: Biological Sciences* 288:20202958
- 2020 **Ruzicka, F.***, Connallon, T.* (2020). Is the X chromosome a hot spot for sexually antagonistic polymorphisms? Biases in current empirical tests of classical theory. *Proceedings of the Royal Society B: Biological Sciences* 287:20201869
- Ruzicka, F.***, Dutoit, L.*, Czuppon, P., Jordan, C.Y., Li, X-Y, Olito, C., Runemark, A., Svensson, E.I., Yazdi, H.P., Connallon, T. (2020). The search for sexually antagonistic genes: Practical insights from studies of local adaptation and statistical genomics. *Evolution Letters* 4:398-415

- 2019 **Ruzicka, F.***, Hill, M.S.*, Pennell, T.M.*, Flis, I., Ingleby, F.C., Mott, R., Fowler, K., Morrow, E.H., Reuter, M. (2019). Genome-wide sexually antagonistic variants reveal long-standing constraints on sexual dimorphism in fruit flies. *PLOS Biology* 17:e3000244
- 2018 and previous Connallon, T., Olito, C., Dutoit, L., Papoli, H., **Ruzicka, F.**, Yong, L. (2018). Local adaptation and the evolution of inversions on sex chromosomes and autosomes. *Philosophical Transactions of the Royal Society B: Biological Sciences* 373:20170423
- Reuter, M., Camus, M. F., Hill, M.S., **Ruzicka, F.**, Fowler, K. (2017). Evolving plastic responses to external and genetic environments. *Trends in Genetics (Forum)* 33:169-170
- Davies, T., **Ruzicka, F.**, Lavery, T., Walters, C.L., Pettorelli, N. (2016). Ultrasonic monitoring to assess the impacts of forest conversion on Solomon Island bats. *Remote Sensing in Ecology and Conservation* 2:107-118
- Andujar, C., Arribas, P., **Ruzicka, F.**, Crampton-Platt, A., Timmermans, M.J.T.N., Vogler, A.P. (2015). Phylogenetic community ecology of soil biodiversity using mitochondrial metagenomics. *Molecular Ecology* 24:3603-3617

PRIZES & AWARDS

- 2020 ECR Award, Australasian Evolution Society
- 2018 Runner-up, ECR Talk, the UK Genetics Society's Autumn Symposium "Genotype to Phenotype to Fitness"
- Winner, Final Year Talk, UCL GEE Postgraduate Symposium
- 2017 Winner, Second Year Poster, UCL GEE Postgraduate Symposium
- 2013 Darwin Prize for Best Student, UCL MRes programme

FUNDING

- 2023 EUR134,260 IST BRIDGE Fellowship (Horizon Europe #101034413)
- 2020 A\$1,000, ECR Award (Australasian Evolution Society)
- 2019 A\$5,000, ECR Theme Leadership (Monash School of Biological Sciences)
- A\$10,000, ECR Career Development Award (Monash School of Biological Sciences)
- 2017 £800, attendance 26th ESEB Congress (UCL Graduate School Fund)
- 2016 £3,000, CEE Summer Symposium (London Centre for Ecology & Evolution, the UK Genetics Society)
- 2015 CHF450, 'Evolutionary Biology in Guarda' Summer School (University of Basel)
- £7,500, Further PhD research funds (UK Natural Environment Research Council)
- 2014–18 £64,000, PhD Studentship (UK Natural Environment Research Council)

PRESENTATIONS

- 2023 Invited talk, Edinburgh University (Edinburgh, UK)
- Invited talk, Lund University (Lund, Sweden)
- Invited talk, Institute of Science and Technology Austria (Vienna, Austria)
- Poster, Jacques Monod Conference "Sex unfolded" (Roscoff, France)
- Talk, 56th Population Genetics Group (London, UK)
- 2021 Talk, Australasian Evolution Society (Melbourne, Australia)
- 2020 Plenary talk, Australasian Evolution Society (online)
- Talk, Genetics Genomics & Health seminar series (Monash)
- 2019 Talk, Australasian Evolution Society (Sydney, Australia)
- Talk, ECR Science Symposium (Monash)
- Talk, School of Biological Sciences seminar series (Monash)
- Poster, 27th European Society for Evolutionary Biology (Turku, Finland)

- 2018 Talk, Genetics Society of Australasia (Melbourne, Australia)
Talk, 52nd Population Genetics Group (Oxford, UK)
Talk, The Genetics Society's Autumn Symposium "Genotype to Phenotype to Fitness" (Exeter, UK)
- 2017 Talk, GEE Postgraduate Symposium (UCL)
Talk, 51st Population Genetics Group (Bristol, UK)
Talk, 26th European Society for Evolutionary Biology (Groningen, Netherlands)
Poster, GEE Postgraduate Symposium (UCL)
- 2015 Talk, European Meeting of PhD Students in Evolutionary Biology (Stirling, UK)
Poster, Quantitative Genomics (London, UK)
Talk, GEE Postgraduate Symposium (UCL)
Talk, NERC DTP Panel (UCL)

LEADERSHIP

- 2022–23 Co-organiser, Society for Molecular Biology Everywhere Symposium "Genetics and Evolution of Sex Differences" (online)
- 2020–21 Co-organiser, School of Biological Sciences Seminar Series (Monash)
- 2019–21 ECR representative, School of Biological Sciences "Evolution" Theme (Monash)
- 2016–18 Co-organiser, UCL GEE Friday Seminars for Young Researchers (UCL)
- 2016 Co-organiser, London Centre for Ecology & Evolution Summer Symposium: "War & Peace: The Dynamics of Evolutionary Conflict" (London)

TEACHING

- 2020–21 Co-leader, "Foundations of Evolutionary Biology" PhD course in population and quantitative genetics (Monash)
- 2019–21 Guest lecturer, Evolutionary & Ecological Genetics (Monash), Genomics & Population Genetics (Monash)
- 2015–20 Undergraduate tutor, Genomics & Population Genetics (Monash), Evolutionary & Ecological Genetics (Monash), Sex Genes & Evolution (UCL), Computational Biology (UCL), Evolutionary Genetics (UCL)

SUPERVISION

- 2021–22 Naarah Bovingdon (Honours, Monash)
Yasmine McDonough (Honours, Monash)
Natalie Schmiedl (Undergraduate, Monash)
- 2020 Justyna Cyza (Undergraduate, Monash)
- 2019 Isobel Beasley (Undergraduate, Monash)
- 2018 Olivia Davidson (MRes, UCL)
- 2016 Harvi Pawar (Undergraduate, UCL)
Didem Snaith (Undergraduate, UCL)
Max Houghton (MRes, UCL)
- 2015 Sadé Bates (Msci, UCL)

REVIEWING

- 2019–2023 *Nature Ecology and Evolution, PLOS Biology, PNAS, Molecular Biology and Evolution, The American Naturalist, Proceedings B, Genome Biology and Evolution, Evolution Letters, Genetics, Evolution, Journal of Evolutionary Biology, Behavioural Ecology and Sociobiology, Heredity*
Human Frontiers Science Program Postdoctoral Fellowships, The Austrian Academy of Sciences DOC fellowships

PUBLIC ENGAGEMENT

- 2020 *Evolution Letters* research blog
- 2018 Scientific expert for 'Agonism/Antagonism' art exhibition at UCL Grant Museum of Zoology

- 2016–17 *The Genetics Society* Summer newsletter
2014–17 Tutor, “Generating Genius” volunteer programme for STEM secondary students from low socio-economic backgrounds
2009–13 Leader, “Roots & Shoots” volunteer programme to communicate scientific and environmental issues to primary school children

TRAINING & WORKSHOPS

- 2017–23 ESEB Special Topics Network (Lund, Sweden; Montpellier, France; Ingelheim am Rhein, Germany)
2019–20 GENETICS Peer Review Training Programme (online)
2015 Guarda Summer School (Guarda, Switzerland)

REFEREES

- Tim Connallon Lecturer, School of Biological Sciences, Monash University (Melbourne, Australia). **E:** Tim.connallon@monash.edu
- Max Reuter Professor, Dept. of Genetics Evolution & Environment, University College London (London, UK). **E:** m.reuter@ucl.ac.uk
- Kevin Fowler Professor, Dept. of Genetics Evolution & Environment, University College London (London, UK). **E:** k.fowler@ucl.ac.uk