

PROFILE

My research focuses on integrating transdisciplinary methodologies to bridge public health policy and pathogen evolution, providing strategic insights into preventive measures while leading participatory programs that involve vulnerable communities in viral monitoring efforts.

PROFESSIONAL EXPERIENCE

POSTDOCTORAL FELLOW – Medical University of Vienna (AUT)

2022 – Present

- Designing citizen science initiatives for pathogen surveillance in marginalized populations



SENIOR POSTDOCTORAL FELLOW – Konrad Lorenz Institute (AUT)

2021 – 2022

- Developing guidelines for applying transdisciplinary methods into infectious disease prevention



POSTDOCTORAL FELLOW – Konrad Lorenz Institute (AUT)

2020 – 2021

- Conceptualizing prevention methods combining disease evolution and public health



RESEARCH ASSOCIATE – Centre for Ecological Research (HUN)

2018 – 2020

- Conceptualizing prevention methods combining disease evolution and public health



ASSISTANT PROFESSOR – Eotvos Loránd University (HUN)

2017 – 2018

- Teaching Ecology and Evolution on graduate and undergraduate level, research on ZIKA virus evolution



POSTDOCOTRAL ASSOCIATE – Univ. Federal Rio Grande do Norte (BRA)

2014 – 2016

- Co-PI of research on host-pathogen evolution in tropical ectotherms, teaching graduate seminars



POSTDOCTROAL FELLOW – Dartmouth College (USA)

2013 – 2014

- PI of research on the physiological effects of climate change, leading outreach programs



GRANTS & AWARDS

- 2024** Environmental Systems Grant, WWTF, AUSTRIA
- 2024** Top Citizen Science Grant, FWF, AUSTRIA
- 2022** Resident postdoctoral fellowship, Konrad Lorenz Institute of Evolution and Cognition Research, AUSTRIA
- 2014** Research grant (Co-PI), Conselho Nacional de Desenvolvimento Científico e Tecnológico, BRAZIL
- 2013** Postdoctoral research scholarship, Rosztoczy Foundation, USA

EDUCATION

MSc/PhD – Eotvos Lorand University (HUN)

2013

- Evolutionary biology (PhD)

2007

- Evolutionary biology, Ecology and Systematics (MSc)



**ORSOLYA
BAJÉR-MOLNÁR**

POSTDOCTORAL FELLOW



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KEY COMPETENCIES

Analytical problem-solving

Leadership & management

Communication

Innovative research design

Interactive teaching methods

MEMBERSHIPS

- European Citizen Science Association (ECSA)
- CS4Health – working group of ECSA

LANGUAGES SPOKEN

- Hungarian – native
- English – native
- German – C1
- Portuguese – B1



PUBLICATIONS

- B. Meszaros, L. Jordan, J. Torok, **O. Molnar** (2025) Impact of food availability on the thermal performance curves of male European green lizards (*Lacerta viridis*). *Oecologia* (accepted)
- **O. Molnar**; M. Knickel, Ch. Marizzi (2022) Taking Action: Turning Evolutionary Theory into Preventive Policies. *MANTER: Journal of Parasite Biodiversity* DOI: 10.32873/unl.dc.manter28
- **O. Molnar**; E. Hoberg, V. Trivellone, G. Foldvari, D. R. Brooks (2022) The 3P Framework: A Comprehensive Approach to Coping with the Emerging Infectious Disease Crisis. *MANTER: Journal of Parasite Biodiversity* DOI: 10.32873/unl.dc.manter23
- E. Hoberg; W. E. Boeger, **O. Molnar**, G. Foldvari, S. Gardner, A. Juarrero, V. A. Karchenko, E. Ortiz, W. Preisler, V. Trivellone, D. R. Brooks (2022) The DAMA Protocol, an Introduction: Finding Pathogens before They Find Us. *MANTER: Journal of Parasite Biodiversity* DOI: 10.32873/unl.dc.manter21
- M. P. Vianna Franco, **O. Molnar**; Ch. Dorninger, A. Laciny, M. Treven, J. Weger, E. da Motta da Albuquerque, R. Cazzolla Gatti, L. A. Villanueva Hernandez, M. Jakab, Ch. Marizzi, L. P. Menendez, L. Poliseli, H. Bobadilla Rodriguez, G. Canigla (2022) Diversity regained: Precautionary approaches to COVID-19 as a phenomenon of the total environment. *Science of the Total Environment* DOI: 10.1016/j.scitotenv.2022.154029
- P. Apari; K. Bajer, D. R. Brooks, **O. Molnar** (2019) Hiding in plain sight: an evolutionary approach to the South American Zika outbreak and its future consequences. *Zoologia* DOI: 10.3897/zoologia.36.e36272
- B. Meszaros; L. Jordan, K. Bajer, J. Martin, J. Torok, **O. Molnar** (2019) Relationship between oxidative stress and sexual coloration of lizards depends on thermal habitat. *The Science of Nature* DOI: 10.1007/s00114-019-1649-2
- B. Meszaros; G. Herczeg, K. Bajer, J. Torok, **O. Molnar** (2017) Effects of energy and thermoregulation time on physiological state and sexual signal in a lizard. *Journal of Experimental Zoology Part A: Ecological and Integrative Physiology* DOI: 10.1002/jez.2143
- G. Horvath, B. Meszaros; T. J. Urszan, K. Bajer, **O. Molnar**, L. G. Garamszegi, G. Herczeg (2017) Environment-dependence of behavioural consistency in adult male European green lizards (*Lacerta viridis*). *PLOS One* DOI: 10.1371/journal.pone.0187657
- M. L. Logan, M. C. Duryea, O. Molnar, B. J. Kessler, R. Calsbeek (2016) Spatial variation in climate mediates gene flow across an island archipelago. *Evolution* DOI: 10.1111/evo.13031
- **O. Molnar**, K. Bajer, G. Szovenyi, J. Torok, G. Herczeg (2016) Space Use Strategies and Nuptial Color in European Green Lizards. *Herpetologica* DOI: 10.1655/HERPETOLOGICA-D-13-00018
- K. Bajer, G. Horvath, **O. Molnar**, J. Torok, L. G. Garamszegi, G. Herczeg (2015) European green lizard (*Lacerta viridis*) personalities: Linking behavioural types to ecologically relevant traits at different ontogenetic stages. *Behavioural Processes* DOI: 10.1016/j.beproc.2014.11.020
- **O. Molnar**, K. Bajer, B. Meszaros, J. Torok, G. Herczeg (2013) Negative correlation between nuptial throat colour and blood parasite load in male European green lizards supports the Hamilton-Zuk hypothesis. *Naturwissenschaften* DOI: 10.1007/s00114-013-1051-4
- **O. Molnar**, K. Bajer, J. Torok, G. Herczeg (2012) Individual quality and nuptial throat colour in male European green lizards. *Journal of Zoology* DOI: 10.1111/j.1469-7998.2012.00916.x
- K. Bajer, **O. Molnar**, J. Torok, G. Herczeg (2012) Temperature, but Not Available Energy, Affects the Expression of a Sexually Selected Ultraviolet (UV) Colour Trait in Male European Green Lizards. *PloS ONE* DOI: 10.1371/journal.pone.0034359
- K. Bajer, **O. Molnar**, J. Torok, G. Herczeg (2011) Ultraviolet nuptial colour determines fight success in male European green lizards (*Lacerta viridis*). *Biology Letters* DOI: 10.1098/rsbl.2011.0520
- K. Bajer, **O. Molnar**, J. Torok, G. Herczeg (2010) Female European green lizards (*Lacerta viridis*) prefer males with high ultraviolet throat reflectance. *Behavioral Ecology and Sociobiology* DOI: 10.1007/s00265-010-1012-2

CONFERENCES – 5 year summary

2025

- **Citizen Science 4 Health (CS4Health2025)** Zurich, CHE – scientific committee member
- **Conference for Advancing Participatory Sciences (CAPS2025)** How can CS reshape pandemic preparedness and response. Portland, OR, USA – symposium (abstract accepted)
- **Deutsch-Österreichischer Aids Kongress (DOAK2025)** Impfungen aus transdisziplinärer Sicht. Wien, AUT – invited speaker

2024

- **European Citizen Science Association (ECSA2024)** How Citizen Science ties the knot between pathogen evolution and public health prevention. Wien, AUT – invited speaker
- **Centenary Conference for MLH Pritchard** We're in this together: unveiling hidden pathogen diversity using transdisciplinary initiatives. Lincoln, NB, USA – keynote speaker
- **33rd Annual Meeting of the Society for Virology (GfV2024)** Citizen Science in Viral Surveillance: Transdisciplinary Approaches to Coping with Emerging Infectious Diseases. Wien, AUT – poster

2023

- **American Society for Virology (ASV2023)** All hands on deck – Transdisciplinary Approaches to Coping with Emerging Infectious Diseases. Athens, GA, USA – speaker
- **Stockholm Paradigm, DAMA Protocol and citizen science: applications for the PRAGMATICK COST Action** All Hands on Deck: Transdisciplinary Approaches to Coping with Emerging Infectious Diseases. Budapest, HUN – keynote speaker

2022

- **2nd World Congress on Climate Change and Environmental Health** The DAMA protocol – Implementing evolution into public health to prevent epidemics. Budapest, HUN – keynote speaker
- **4th UNESCO Winter School 2022 TRUTH AND CONSEQUENCES** PreAction Plan - Mobilizing evolution in Public Health Disease Prevention. Budapest, HUN – invited panelist

2021

- **1st Global Transdisciplinary Conference** Mobilizing Evolution within Public Health towards Disease Prevention. Krems, AUT – invited panelist
- **CitSciVirtual: Local, Global, Connected** SciArt - building bridges between disciplines and generations. online – speaker
- **3rd UNESCO Winter School 2021 HOW TO BE A CITIZEN?** History repeating itself - a radical shift needed in how we perceive and handle epidemics. Budapest, HUN – invited panelist