## Melinda Rostal

https://rostal.github.io in/melinda-rostal

## **EXPERIENCE**

| EIR EIGELTEE  |                       |
|---|-----------------------|
| One Health Research Consulting                      | Glen Rock, NJ         |
| Owner/Principal Consultant                          | 2024-present          |
| EcoHealth Alliance                                  | New York, NY          |
| Principal Research Scientist, Vector-Borne Diseases | 2019-2024             |
| Rift Valley Fever Projects Manager and Co-PI        | 2014-2024             |
| Senior Research Scientist                           | 2012-2019             |
| PREDICT-2 EHA Surveillance & Outbreak Coordinator   | 2014-2019 & 2017-2019 |
| PREDICT EHA Latin America Regional Coordinator      | 2011-2014             |
| Field Veterinarian                                  | 2010-2012             |
| Columbia University                                 | New York, NY          |
| Adjunct Research Scientist, E3B Department          | December 2010 - 2024  |
| RESEARCH PROGRAMS                                   |                       |

Rift Valley fever virus (RVFV) research: Co-PI on Understanding Rift Valley Fever in the Republic of South Africa, DTRA: HDTRA1-19-0033; Reducing the Threat of Rift Valley Fever: Ecology, Epidemiology and Socio-Economics, DTRA: HDTRA1-19-0033; & An Open-Source Framework for Rift Valley Fever Forecasting, Wellcome Trust projects. We 1) Evaluated the RVFV infection dynamics in longitudinal sheep & vector populations; 2) Evaluated population-level exposure to RVFV in people, livestock & wildlife, over time & space; 3) Conducted a One Health cost & benefit analysis of RVF outbreak prevention; 4) Developed an early warning system for RVF, sustainably supported by a government partner, & are expanding across Africa.

Crimean-Congo hemorrhagic fever virus (CCHFV) research: PI on Crimean-Congo Hemorrhagic Fever: Reducing an Emerging Health Threat in Tanzania project, DTRA: HDTRA1-20-1-0018. We 1) Conducted a baseline assessment of CCHFV seroprevalence in people, cattle and small mammals & CCHFV presence in ticks; 2) Built up capacity in Tanzania to increase CCHFV diagnosis & the morphological tick identification.

**Viral emerging zoonotic disease research:** USAID PREDICT & PREDICT 2 projects: 1) Build capacity for One Health surveillance for emerging viruses; 2) Discover and characterize new viruses; 3) Assess and predict the risk of viral spillover at different interfaces; 4) Respond to outbreaks of EIDs and unknown pathogens.

## **EDUCATION**

| University of Glasgow                              | Glasgow, UK                     |
|--|---------------------------------|
| PhD Epidemiology                                   | <i>October 2015 – June 2020</i> |
| University of Minnesota                            | St. Paul, MN                    |
| Doctor of Veterinary Medicine                      | September 2004 - May 2008       |
| Master of Public Health                            | May 2005 - November 2007        |
| Princeton, University                              | Princeton, NJ                   |
| A.B., Ecology and Evolutionary Biology Cumme Laude | September 1999 - May 2003       |
| PUBLICATIONS                                       | -                               |
|  |                                 |

40 peer-reviewed publications, see ORCID: <u>0000-0002-6563-5280</u>.

**SKILLS** 

One Health Leadership: Coalesced, coordinated and manage teams representing medicine and epidemiology (human and veterinary), environmental sciences, entomology, conservation & economics and with partners in Asia, Africa, Europe, and the Americas; coordinated with gov't partners.

- **Project Development and Management:** Idea generation, Power analysis, Partner engagement, Grant writing & submission (NIH, NSF, USDA, USAID, DOD, USFW & foundations), Wrote SOPs, & questionnaires, Biosafety assessment, Managed IRB and IACUC protocols, Budgeting.
- **Research, analytic & data management:** simulation-based power analyses; GLM & GLMMs; Bayesian statistical tools, mixture models, mathematical modeling; standard epidemiological analyses: risk factor analysis, incidence estimates, weighted seroprevalence, & developed reproducible techniques in R for data quality assurance and cleaning to integrate complex One Health data (r package: ohcleandat).
- **Training:** Developed training materials and guides; trained over 317 people from more than 12 countries across Africa, Asia and Latin America; support analysis and manuscript writing for partners; topics: epidemiology, wildlife surveillance, field biosafety, One Health, project SOPs & ethics.