

GIULIA PATERNOSTER

VETERINARY EPIDEMIOLOGIST

CONTACT

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EDUCATION

MSc ANIMAL HEALTH & PRODUCTION

University of Milan, Italy
Grade 70/70
2013 - 2016

DOCTOR OF VETERINARY MEDICINE

University of Bologna, Italy
Grade 110/110 *summa cum laude*
2005 - 2011

Universidad Complutense de Madrid,
Spain

Erasmus Mundus Program
2008 - 2009

KEY SKILLS

Database management, data analysis



Geographic information systems,
disease mapping — QGIS



Statistical and spatial modelling — R



Problem solving, attention to
details, communication



Networking, transdisciplinary
thought, innovation, team building



9 years of experience in animal and zoonotic diseases surveillance. Enthusiastic, open-minded, and critical. Expert in data analysis, disease mapping, statistical modelling, scientific communication, and interdisciplinary collaboration — One Health.

WORK EXPERIENCE

PHD CANDIDATE IN EPIDEMIOLOGY AND BIOSTATISTICS

Life Science Zurich Graduate School / Zurich, CH / July 2017 – Present

Section of Epidemiology, Vetsuisse Faculty, University of Zurich

Funded by: Swiss National Science Foundation

- Epidemiology and transmission modelling of echinococcosis in Kyrgyzstan
- Data pre-processing and analysis, statistical and spatial modelling, GIS system analysis
- Organise fieldwork and samples collection in multidisciplinary teams. Coordinate meetings, train on data management
- Present research project's results, teach in University courses, publish scientific papers

VISITING RESEARCHER – EPIDEMIOLOGIST

Kansas State University / Manhattan, KS, USA / Jan - Jun 2017

Department of Diagnostic Medicine/Pathobiology, College of Veterinary Medicine

Funded by: National Bio and Agro-Defense Facility (NBAF) fund, Center of Excellence for Emerging and Zoonotic Animal Diseases (CEEZAD), Kansas Bioscience Authority (KBA)

- Develop quantitative risk assessment models for foreign animal diseases introduction into the USA (African and Classical Swine fever)
- Use of spatial epidemiology methods and evaluate surveillance systems
- Present research project's results, publish scientific papers

JUNIOR RESEARCHER – EPIDEMIOLOGIST

Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia-Romagna (IZSLER) / Bologna, IT / 2012 – 2016

Funded by: Italian Ministry of Health, 4 projects: 1. Bovine paratuberculosis: evaluation of the economic impact and animal welfare in infected herds // 2. Design and implementation of a national geoportal supporting veterinary activities // 3. Creating an integrated information system for paratuberculosis // 4. Implementation of a special plan for the eradication of swine vesicular disease in Calabria and Campania regions and extraordinary interventions in accredited Regions

- Surveillance systems (e.g. Blue Tongue, leishmaniasis, West Nile virus): collect and analyse data, disease and outbreaks mapping, collaborate in writing periodic bulletins and official dossier for freedom from disease status. Participate in official meetings: Ministry of Health, regional coordination of Veterinary Services
- Training and education: for Veterinary Services, practitioners, and students of Veterinary Medicine (e.g. leishmaniasis, West Nile disease); help develop risk assessment app for tablet for veterinarians to use on the farm and facilitate record maintenance (bovine paratuberculosis). Help develop explanatory brochures, online information platform, YouTube video for farmers on disease and national guidelines (bovine paratuberculosis).
- On-field outbreak investigations: avian influenza (H5N2 LPAI in 2015, H7N7 HPAI in 2013), brucellosis in goats and tuberculosis in cattle (2014), swine vesicular disease (2013). Evaluation of biosecurity measures. Animal sampling.

PUBLICATIONS

LANGUAGES

ITALIAN
NATIVE LANGUAGE



ENGLISH



SPANISH



GERMAN



AWARDS

2020 / Graduate campus travel grant: 2-week research stay @ WorldPop, University of Southampton, UK

2018 / Best oral presentation award, "Spatial analysis of human echinococcosis in Kyrgyzstan", 15th International Symposium of Veterinary Epidemiology and Economics (ISVEE) Chiang Mai, Thailand

2017 / Conference bursary award, 8th International Conference on Emerging Zoonoses focusing on Emerging and Transboundary Infectious Diseases (ESCMID), Manhattan, Kansas, USA

2016 / 1st Poster Prize "[A risk index to evaluate avian influenza viruses introduction by wild birds.](#)" Annual Meeting of the Society for Veterinary Epidemiology and Preventive Medicine (SVEPM), Elsinore, Denmark

2015 / Conference Bursary Award for the annual meeting of the Society for Veterinary Epidemiology and Preventive Medicine (SVEPM), Ghent, Belgium

- **Epidemic cystic and alveolar echinococcosis in Kyrgyzstan: an analysis of national surveillance data.** (2020) Paternoster G, Boo G, Wang C, Minbaeva G, Usabalieva J, Raimkulov KM, Zhoroev A, Abdykerimov KK, Kronenberg PA, Furrer R, Deplazes P, Torgerson PR. *The Lancet Global Health.* [https://doi.org/10.1016/S2214-109X\(20\)30038-3](https://doi.org/10.1016/S2214-109X(20)30038-3)
- **Genetic diversity of *Echinococcus multilocularis* and *Echinococcus granulosus sensu lato* in Kyrgyzstan: the A2 haplotype of *E. multilocularis* is the predominant variant infecting humans.** (2020) Alvarez Rojas CA, Kronenberg PA, Aitbaev S, Omorov RA, Abdykerimov KK, Paternoster G, Muellhaupt B, Torgerson PR, Deplazes P. *PLoS Neglected Tropical Diseases.*14(5) <https://doi.org/10.1371/journal.pntd.0008242>
- **Could African swine fever and Classical swine fever viruses enter into the United States via swine products carried in air passengers' luggage?** (2018) Jurado C, Paternoster G, Martinez-Lopez B, Burton K, Mur L. *Transboundary and emerging diseases.* <https://doi.org/10.1111/tbed.12996>
- **A method to identify the areas at risk for the introduction of avian influenza virus into poultry flocks through direct contact with wild ducks.** (2018) Galletti G, Santi A, Guberti V, Guberti V, Paternoster G, Licata E, Loli Piccolomini L, Procopio A, Tamba M. *Transboundary and emerging diseases.* <https://doi.org/10.1111/tbed.12838>
- **Economics of One Health: Costs and benefits of integrated West Nile virus surveillance in Emilia-Romagna.** (2017) Paternoster G, Babo Martins S, Mattivi A, Cagarelli R, Angelini P, Bellini R, Santi A, Galletti G, Pupella S, Marano G, Copello F, Rushton J, Stärk KDC, Tamba M. *PLoS ONE.* <https://doi.org/10.1371/journal.pone.0188156>
- **The Degree of One Health Implementation in the West Nile Virus Integrated Surveillance in Northern Italy, 2016.** (2017) Paternoster G, Tomassone L, Tamba M, Chiari M, Lavazza A, Piazzini M, Favretto AR, Balduzzi G, Pautasso A, Vogler BR. *Frontiers in Public Health.* <https://doi.org/10.3389/fpubh.2017.00236>
- **Accuracy estimation of an indirect ELISA for the detection of West Nile Virus antibodies in wild birds using a latent class model.** (2017) Tamba M, Caminiti A, Prosperi A, Desprès P, Lelli D, Galletti G, Moreno A, Paternoster G, Santi A, Licata E, Lecollinet, S, Gelmini L, Rugna G, Procopio A, Lavazza A. *Journal of Virological Methods.* <https://doi.org/10.1016/j.jviromet.2017.07.010>
- **Suitability of a Salmonella control programme based on serology in slaughter heavy pigs.** (2015) Gradassi M, Caminiti A, Galletti G, Santi A, Paternoster G, Tamba M, Zanon M, Tagliabue S, Alborali G L, Trevisani M. *Research in Veterinary Science,* 101:154–160. <https://doi.org/10.1016/j.rvsc.2015.06.015>
- **Perdite economiche associate alla presenza di paratubercolosi in allevamento.** Estimation of the economic losses associated with Johne's Disease in dairy herds of North Italy. (2014) Tamba M, Paternoster G, Formigoni A, Garbarino C, Santi A, Galletti G, Fustini M, Caminiti A, Natalini S, Arrigoni N. *Large Animal Review,* 20(4):147-151. https://www.vetjournal.it/images/archive/pdf_riviste/4662.pdf
- **A Surveillance Program on Canine Leishmaniasis in the Public Kennels of Emilia-Romagna Region, Northern Italy.** (2013) Santi A, Renzi M, Baldelli R, Calzolari M, Caminiti A, Dell'Anna S, Galletti G, Lombardini A, Paternoster G, Tamba M. *Vector Borne and Zoonotic Diseases,* 14(3). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3952590/pdf/vbz.2013.1362.pdf>

MAIN PRESENTATIONS

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| <ul style="list-style-type: none"> • Disease ecology—potential environmental drivers of human echinococcosis in Kyrgyzstan. VPH conference 2019, Bern, CH, 28/11/2019 • Epidemiology & geostatistical modelling of human echinococcosis in Kyrgyzstan. Fortbildungseminar Parasitologie, Zurich, CH, 15/10/2019 • Geospatial disease modelling to identify potential environmental determinants of human echinococcosis in Kyrgyzstan. XVIII World Congress on Echinococcosis, Lima, PE, 29-31/10/2019 • Human echinococcosis in Kyrgyzstan — Incidence and geographical distribution, short presentation, SVEPM Conference, Utrecht, NL, 28/04/2019 • Vector-borne zoonoses. How do we protect Europe? & moderation of the Science Café "Integrated Surveillance and Response Systems". Swiss TPH Winter Symposium 2018, Basel, CH, 07/12/2018 • Spatial analysis reveals hotspots of human echinococcosis in Kyrgyzstan. VPH Conference, Zurich, CH, 29/11/2018 • Spatial analysis of human echinococcosis in Kyrgyzstan. 15th International Symposium of Veterinary Epidemiology and Economics (ISVEE15), Chiang Mai, TH, 13/11/2018 • Bologna Declaration on One Health & Ecohealth. Final NEOH conference: Creating impact for One Health and Ecohealth: advancements in implementation, evaluation and governance. Bologna, IT, 10-12/09/2018 | <ul style="list-style-type: none"> • One Health surveillance of West Nile Virus for blood donations safety. Highlights in transfusion presentation series, Regional blood transfusion Service, Swiss Red Cross, Schlieren, CH, 07/05/2018 • West Nile virus surveillance: an opportunity for One Health and for the evaluation of its added value. University of Turin, IT, 29/05/2018 • West Nile virus surveillance, an opportunity for One Health. VPH Conference, Bern, CH, 30/11/2017 • One Health approach: multidisciplinary and cross-sectorial collaboration to address health risks at the interface between animals, humans and their environments. The example of the economic benefits of integrated WNV surveillance in Emilia-Romagna. IZSLER conference 'One Health approach for zoonoses prevention: the role of the epidemiology units.' Bologna, IT, 25/11/2016 • Economics of One Health: Evidence of substantial benefits of integrated West Nile virus surveillance. International Meeting on Emerging Diseases and Surveillance (IMED), Vienna, AT, 07/11/2016 • WNV integrated surveillance in Emilia-Romagna: an example of One Health approach in Italy. ISVEE14, Mérida, MX, 03/11/2015 |
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