

Dr Poppy Lamberton

Poppy.Lamberton@glasgow.ac.uk

+44 (0)7786 016327

Key Research Focus

Combining detailed field epidemiological data, laboratory experiments, and population genetics and genomics to understand population structure, transmission dynamics and effects of long term mass drug administration programmes on neglected tropical diseases

Employment

- 2015-current **Senior Lecturer in Parasitology at The University of Glasgow:** Understanding the forces driving disease transmission and low drug efficacy in *Schistosoma mansoni* hotspots
- 2015-current **Honorary Senior Lecturer at Imperial College London (ICL)**
- 2012-2015 **Junior Research Fellow at Imperial College London:** Effects of mass drug administration on *Schistosoma* population dynamics. I led field epidemiology teams, designed novel diagnostic studies, and performed parasite population genetic studies
- 2009-12 **Research Associate at ICL:** Density-dependent host choice by onchocerciasis vectors. I coordinated and led extensive fieldwork, undertook entomology and molecular identification and analyses, and parameterised mathematical models
- 2008-09 **Research Associate at ICL:** Effect of mass drug administration on *Schistosoma mansoni* infection intensity and associated morbidity. I initiated and led fieldwork, and evaluated methods for diagnostic and morbidity indicators

Qualifications and Experience

- 2016 Jan-Mar **World Health Organization:** Secondment to the Preventative Chemotherapy and Transmission Control, Department of Neglected Tropical Diseases
- 2008 **PhD:** Medical Research Council Studentship in the Department of Infectious Disease Epidemiology, ICL: 'Adaptation and evolution of *Schistosoma mansoni* under chemotherapeutic pressure'. In collaboration with Schistosomiasis Control Initiative, UK and Vector Control Division, Ministry of Health, Uganda
- 2002 **BA 1st Class Honours:** Biological Sciences, Pembroke College, University of Oxford

Fellowships and Awards

- 2016-2021 **PI: Research Council Starting Grant** 'New approaches to characterise *Schistosoma mansoni* infections persisting despite mass drug administration' (**€1.5 Million**)
- 2016-2021 **Co-applicant: National Institute of Health, USA.** Mapping the genes which underlie praziquantel resistance in schistosomes (**US \$2.5 Million**)
- 2012-current **PI:** highly competitive, independently funded **Fellowship at ICL (Full Salary & £30,000)**
- 2014 One of four shortlisted for **Science Woman of the Future.** The UK's largest national search for exceptionally talented women
- 2014 Shortlisted for **Student Academic Choice Awards** for excellence in supervision, teaching and student feedback. Invited to speak at Imperial's 2015 **Annual Education Day**
- 2014 Nominated for the **BBC's 2014 '100 Women'**
- 2013 **Next Generation Global Health Innovators Award** won by BSc Student I supervised to continue 'Development and comparison of novel diagnostics for *S. mansoni*' (**£5,000**)
- 2008 Researcher for the Schistosomiasis Control Initiative, which was awarded a **Queens Royal Anniversary Trust Award**
- 2007 Co-author - 'Development and application of an ethically and epidemiologically advantageous assay for the multi-locus microsatellite analysis of *Schistosoma mansoni*' awarded the **National Council 3Rs Award for Replacement, Refinement and Reduction of Animals in Research**
- 2007 **Value in People Award** funded by the Wellcome Trust, ICL (**£17,200**)
- 2007 **Presentation Prize,** Royal Society of Tropical Medicine and Hygiene (RSTMH)
- 2003-2006 **Medical Research Council Studentship, ICL (Full stipend & research, £38,250)**

Supervision

- PhD** 2015: Mahidol University, Thailand: *Opisthorchis viverrini* phenotype to genotype
2013 – current: ICL: Age-distribution dynamics of soil-transmitted helminths
Completed 2013, ICL: The effects of *Toxoplasma gondii* on host behaviour: Studies on evolution and mechanisms of action – Current position: Journal Editor
Mentor two PhD students
- MSc** 2013: ICL: One student (Honours and contributed to a published paper)
2006: One LSHTM student (Honours and a published conference)
- BSc** 2015: ICL: One student – (1st Class Honours)
2013: ICL: Four students (Three 1st Class Honours, Oral Presentation Prize at RSTMH meeting and £5000 Next Generation Global Health Innovation Award)
2011: one student (2:1)
2006: one student (1st Class Honours: Award for highest mark in year)
- Undergraduate Research Opportunities Programme (UROP)** summer placement 2015, 2013 and 2012

Teaching

- 2015 Develop and lead interactive debates on Global Health challenges. BSc Biomedicine
- 2015 Guest lecturer for the University of Liverpool for the Masters in Public Health (MPH)
- 2006-current Lecture: BSc Epidemiology, BSc Global Health, MSc Modern Epidemiology, MPH
Identified gaps in the lecture series, produced new lecture material to cover these areas.
Class sizes range from 5 to 45. Between 8 and 14 contact hours/term.
(2014: student evaluations: 100% 5/5 for BSc, 75% >4/5 for MSc and MPH)
- 2006-current Examination and project setting, marking and *viva voce* for BSc and MSc students
- 2005-current Lead practicals: BSc Epidemiology and Global Health, MSc Modern Epidemiology, MPH
Devised schistosome experimental and mathematical modelling computer practical
- 2012 – 2013 Lecture on ICL Modelling Short Course: International attendance BSc to Professors
- 2012 External examiner MSc Kingston University, UK
- 2004-current Capacity building through training of researchers and technicians within multiple endemic countries including individuals who then perform South-South skill transfer

Invited Talks and Meetings (previous five years)

- 2015 **Coalition for Operational Research for NTDs (COR-NTD) meeting, Philadelphia, USA**
University of Birmingham, UK: Onchocerciasis transmission in Ghana: effect of vector species on biting rates, transmission potentials and the human blood index
Royal Veterinary College, UK: The effect of mass drug administration on *S. mansoni*.
University of Khon Kaen, Thailand: The effect of mass drug administration on *S. mansoni* phenotype and genotype
- 2014 **COR-NTD annual meeting, New Orleans, USA**
University of Glasgow, UK: Understanding the effects of on-going mass drug administration on neglected tropical diseases
University of Oxford, UK: Using parasite population genetics to understand transmission dynamics in neglected tropical diseases
University of Warwick, UK: Using parasite population genetics to understand transmission dynamics in neglected tropical diseases
- 2013 **University of Wales, UK:** Ecology meets Medicine collaborative grant applications retreat.
Liverpool School of Tropical Medicine, UK: Onchocerciasis transmission with ivermectin treatment: How long is mass drug administration needed?
Launch of the London Centre for Neglected Tropical Disease Research, UK: The molecular epidemiology of schistosome species and the monitoring of genetic change under community based treatment
- 2012 **Fio Cruz Amazoñas, Brazil:** Onchocerciasis transmission with ivermectin treatment: How long is mass drug administration needed?
- 2011 **British Society for Parasitology, Nottingham, UK:** Challenges for vector-borne disease mathematical models -density-dependent host choice by onchocerciasis vectors
British Society for Parasitology, Nottingham, UK: Schistosome miracidial behaviour: *In vitro* and *in vivo* praziquantel selective pressures
- 2010 **Dryad UK: Benefits of a data repository linked to bioscience research, London, UK**

Organisation of Scientific Meetings

2016 Primary organiser for the British Society for Parasitology (BSP) Annual Spring Conference in London (the largest parasitology society in Europe and the second largest in the world)

Institutional and External Responsibilities

2015-current Research coordinator for the Global Alliance for Schistosomiasis
2005-current Referee for multiple journals inc. Am J Trop Med Hyg, Bull WHO, PLoS NTDS
2005-current Departmental First Aider, Field First Aider and Expedition First Aid
2003–current Home Office modules 1, 2 and 3 for Personal Licence
2012-2013 Founder and organiser of monthly Faculty of Medicine seminars
2008-2011 Organiser of weekly departmental seminars
2005-2008 Health and Safety Committee

Membership of Scientific Societies

2014-current Council Member of the British Society of Parasitology
2013-current Committee of TradeRelief: microfinance of positive social impact enterprises in Africa
2005-current Fellow of the Royal Society of Tropical Medicine and Hygiene
2005-current Fellow of the Linnaean Society
2003-current Member of the British Society of Parasitology
2003-current Member of the Royal Geographical Society

National and International Collaborations

Diagnostics: *Netherlands:* Leiden Parasitology Diagnostics
UK: DNAe; University of Oxford, University of Nottingham

Entomology & Parasitology: *USA:* Creighton University
UK: Liverpool John Moores, Liverpool School of Tropical Medicine, Greenwich University

Field Epidemiology: *Brazil:* Fiocruz Amazônia
Ghana: Council for Scientific and Industrial Research; University of Legon
Kenya: Kenya Medical Research Institute
Tanzania: National Institute for Medical Research
Uganda: Vector Control Division, Ministry of Health
UK: Schistosomiasis Collection at the NHM, Schistosomiasis Control Initiative
USA: Case Western Reserve University

Immunology: *Belgium:* University of Ghent

Modelling: *UK:* University of Warwick, Greenwich University, Imperial College London

Microbiome: *USA:* New York University; University of Massachusetts Medical School

Population Genetics and Genomics: *USA:* McGill University
Thailand: Khon Kaen University; Mahidol University, Pramongkutkloa Medical College
UK: Kingston University; Natural History Museum, Wellcome Trust Sanger Institute

Public Engagement

Outreach Ambassador for www.womenofthefuture.co.uk and www.stemnet.org.uk. Speak at schools, and accept 1-3 work experience students a year. Mentor 3 students from a socially and economically deprived area. Write for school and university magazines. Tutored for the www.theaccessproject.org.uk and a voluntary adult GCSE maths tutor

Education Perform live interviews at the Natural History Museum (NHM) for 'Nature Live'. Participate in NHM's annual 'Science Uncovered Exhibition' and Imperial College's Science Festival, where I get the public to vote on how to spend the Ugandan £5/person/year national health budget. I spoke at University of the Third Age, to retired people for 'their sheer joy of discovery' and Science museum's 2015 'News and Views'

Media Filmed on my onchocerciasis and schistosomiasis research for short informative videos for the UK National Health Service (www.facultimedia.com) delivered by the UK's leading academics and professionals. I comment for the BBC news and am an active member of www.thewomensroom.org.uk. As a 'Woman of the Future' I attend events at the UK Foreign Office and Parliament, talking directly to policy makers about my research

Publications

Book Chapters

2. JP Webster, **PHL Lamberton** & GA McConkey (2015). The *Toxoplasma gondii* model of schizophrenia. Handbook of Behavioral Neuroscience Series. Modeling the psychopathological dimensions of schizophrenia and related psychoses: from molecules to behavior. Editors: Mikhail Pletnikov and John Waddington. Elsevier, pp 225-241.
1. **PHL Lamberton**, AJ Norton, JP Webster (2010). Propagule behavior and parasite transmission. *Encyclopedia of Animal Behavior*, 2, Editor(s): Breed, Moore, Oxford: Academic Press, pp 786-791.

Peer Reviewed Journals

19. **PHL Lamberton** and PM Jourdan (2015) Human Ascariasis: Diagnostics Update. *Current Tropical Medicine Reports* 64 pp1-12. [DOI](#)
18. Y-M Gao, DB Lu, H Ding, **PHL Lamberton** (2015) Detecting genotyping errors at *Schistosoma japonicum* microsatellites with pedigree information. *Parasites & Vectors* 8:452. [DOI](#)
17. C-R Bian, D-B Lu, J Su, X Zhou, H-X Zhuge, **PHL Lamberton** (2015). Serological prevalence of *Schistosoma japonicum* in mobile populations in previously endemic but now non-endemic regions of China: a systematic review and meta-analysis. *PLoS One* 10(6): e0128896. [DOI](#)
16. **PHL Lamberton**, RA Cheke, P Winskill, RJ Post, M Walker, DA Boakye, MY Osei-Atweneboana, N-K Biritwum, MD Wilson, A Tetteh-Kumah, M-G Basáñez (2015). Onchocerciasis Transmission in Ghana: Persistence under Different Control Strategies and the Role of the Simuliid Vectors. *PLoS Neglected Tropical Diseases* 9(4): e0003688. [DOI](#)
15. C-R Bian, Y-M Gao, **PHL Lamberton** D-B Lu (2015). Comparison of genetic diversity and population structure between two *Schistosoma japonicum* isolates-the field and the laboratory. *Parasitology Research* 1-6. [DOI](#)
14. **PHL Lamberton**, T Crellen, JA Cotton, JP Webster (2015). Modelling the effects of mass drug administration on the molecular epidemiology of schistosomes. *Advances in Parasitology* 87 pp293-327. [DOI](#)
13. EA Ochodo, G Golalakrishna, B Speak, JB Reitsma, L van Lieshout, K Polman, **PHL Lamberton**, PMM Bossuyt, MMG Leeftang (2015). Circulating antigen tests and urine reagent strips for diagnosis of active schistosomiasis in endemic areas. *Cochrane Database of Systematic Reviews* Issue 3. Art. No.: CD009579. [DOI](#)
12. RA Cheke, M-G Basáñez, M Perry, MT White, R Garms, E Obuobie, **PHL Lamberton**, S Young, MY Osei-Atweneboana, J Intsiful, DA Boakye, M Wilson (2015). Potential effects of warmer worms and vectors on onchocerciasis transmission in West Africa. *Philosophical Transactions of the Royal Society B* 370: 20130559. [DOI](#)
11. **PHL Lamberton**, RA Cheke, M Walker, P Winskill, MY Osei-Atweneboana, I Tirados, A Tetteh-Kumah, DA Boakye, MD Wilson, RJ Post, M-G Basáñez (2014). Onchocerciasis transmission in Ghana: biting and parous rates of host-seeking sibling species of the *Simulium damnosum* complex. *Parasites & Vectors* 7:511. [DOI](#)
10. **PHL Lamberton**, NB Kabatereine, DW Oguttu, A Fenwick, JP Webster (2014). Sensitivity and specificity of multiple Kato-Katz and circulating cathodic antigen test for *Schistosoma mansoni* monitoring and evaluation and drug-efficacy with repeated praziquantel. *PLoS Neglected Tropical Diseases* 8: e3139. [DOI](#)

9. RJ Post, R. A. Cheke, DA Boakye, MD Wilson, MY Osei-Atweneboana, A Tetteh Kumah, **PHL Lamberton**, JL Crainey, L Yameogo, MG Basáñez (2013). Stability and change in the distribution of cytospecies of the *Simulium damnosum* complex (Diptera: Simuliidae) in southern Ghana from 1971 to 2011. *Parasites & Vectors* 6: e205. [DOI](#)
8. CM Gower, AN Gouvras, **PHL Lamberton**, A Deol, J Shrivastava, P Mutombo, JV Mbuh, AJ Norton, BL Webster, JR Stothard, A Garba, C Kariuki, NC Lange, GM Mkoji, NB Kabatereine, AF Gabrielli, JW Rudge, A Fenwick, M Sacko, R Dembelé, NJS Lwambo, L-A Tchuem Tchuente, D Rollinson, JP Webster (2013). Population genetic structure of *Schistosoma mansoni* and *S. haematobium* from across six sub-Saharan African countries: Implications for epidemiology, evolution and control. *Acta Tropica*, 128(2) pp261-274. [DOI](#)
7. M Kaushik, **PHL Lamberton**, JP Webster (2012). The role of parasites and pathogens in influencing generalised anxiety and predation-related fear in the mammalian central nervous system. *Hormones and Behavior*, 62(3), pp. 191-201. [DOI](#)
6. **PHL Lamberton**, SC Hogan, NB Kabatereine, A Fenwick, JP Webster (2010). *In vitro* and *in vivo* praziquantel test capable of detecting reduced *in vivo* efficacy in *Schistosoma mansoni* human infections. *American Journal of Tropical Medicine and Hygiene*, 83 (6), pp 1340-1347. [DOI](#)
5. AJ Norton, CM Gower, **PHL Lamberton**, BL Webster, NJS Lwambo, L Blair, A Fenwick, JP Webster (2010). Genetic consequences of mass human chemotherapy for *Schistosoma mansoni*: population structure pre- and post-praziquantel treatment in Tanzania. *American Journal of Tropical Medicine and Hygiene*, 83, pp 951-957. [DOI](#)
4. JP Webster, A Koukounari, **PHL Lamberton**, JR Stothard, A Fenwick (2009). Evaluation and application of potential schistosome-associated morbidity markers within large-scale mass chemotherapy programmes. *Parasitology* 136, pp 1789-1799. [DOI](#)
3. **PHL Lamberton**, CA Donnelly, JP Webster (2008). Specificity of the *Toxoplasma gondii*-altered behaviour to definitive versus non-definitive host predation risk. *Parasitology*, 135, pp 1143-1150. [DOI](#)
2. CM Gower, J Shrivastava, **PHL Lamberton**, D Rollinson, BL Webster, A Emery, NB Kabatereine, JP Webster (2007). Development and application of an ethically and epidemiologically advantageous assay for the multi-locus microsatellite analysis of *Schistosoma mansoni*. *Parasitology*, 134, pp 523-536. [DOI](#)
1. JP Webster, **PHL Lamberton**, CA Donnelly, EF Torrey (2006). Parasites as causative agents of human affective disorders? The impact of anti-psychotic, mood-stabilizer and anti-parasite medication on *Toxoplasma gondii*'s ability to alter host behaviour. *Proceedings of the Royal Society B*, 273, pp1023-1030. [DOI](#)

Peer Reviewed Published Abstracts

10. **PHL Lamberton**, RA Cheke, MY Osei-Atweneboana, P Winskill, RJ Post, A Tetteh-Kumah, KJS Shew, MD Wilson, MG Basáñez (2012). *Simulium damnosum* complex geographical distribution and host choice in Ghana where onchocerciasis transmission is under ivermectin control. *The British Simuliid Group Bulletin* 38 Supplement pp18.
9. RA Cheke, A Tetteh-Kumah, RJ Post, **PHL Lamberton**, MG Basáñez (2012). Compact discs for sampling immature stages of members of the *Simulium damnosum* complex. *The British Simuliid Group Bulletin* 38 Supplement pp24.

8. **PHL Lamberton**, SC Hogan, NB Kabatereine, A Fenwick, JP Webster (2011). Schistosome miracidial behaviour: *in vitro* and *in vivo* praziquantel selective pressures. *Tropical Medicine and International Health*, 16 (S1), pp 70.
7. JL Crainey, J Hurst, MG Basáñez, **PHL Lamberton**, C Griffin, R Cheke, M Wilson, RJ Post (2011). *Simulium damnosum wolbachia* (Wsdam) genomes harbour WOcauB2/B3-like bacteriophage. *Tropical Medicine and International Health*, 16 (S1), pp 202.
6. **PHL Lamberton**, R Cheke, M Osei-Atweneboana, P Winskill, L Crainey, M Wilson, R Post, MG Basáñez (2011). Challenges for vector-borne disease mathematical models-density-dependent host choice by onchocerciasis vectors. *Tropical Medicine and International Health*, 16 (S1), pp 256.
5. **PHL Lamberton**, RA Cheke, MY Osei-Atweneboana, I Tirados, MD Wilson, RJ Post, MG Basáñez (2010). Density-dependent host choice by Onchocerciasis vectors. *The British Simuliid Group Bulletin* 34 Supplement pp10.
4. **PHL Lamberton**, AJ Norton, A Fenwick, NB Kabatereine, JP Webster (2008). The effect of praziquantel treatment on the genetic diversity of *Schistosoma mansoni* infections in primary school children within Mayuge District, Uganda. *American Journal of Tropical Medicine and Hygiene*, 79 (6), pp222.
3. **PHL Lamberton**, N Kabatereine, A Fenwick, JP Webster (2005). Adaptation and evolution of *Schistosoma* spp. in response to chemotherapeutic pressure. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 99 (12), pp 948.
2. E Robinson, **PHL Lamberton**, R Stothard, N Kabatereine, A Fenwick, G Coles, JP Webster (2005). Development and evaluation of a field test for praziquantel resistance in *Schistosoma mansoni* at three schools in Mayuge District, Uganda. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 99 (12), pp 952.
1. J Shrivastava, CM Gower, D Rollinson, T-P Wang, **PHL Lamberton**, B-Z Qian, E Balolong, JP Webster (2005). The importance and application of natural schistosome population sampling. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 99 (12) pp 953.