

PATSY MARIA POLSTON, PhD, MSPH

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EDUCATION

PhD	2015	Environmental Sciences & Engineering, University of North Carolina Gillings School of Global Public Health, Chapel Hill, NC <i>Formal Minor:</i> Health Behavior <i>Doctoral Dissertation:</i> "Development and Evaluation of Candidate Microbial Source Tracking Markers to Use Following Land Application of Biosolids"
MSPH	2011	Environmental Sciences & Engineering, University of North Carolina Gillings School of Global Public Health, Chapel Hill, NC
	2010	<i>Certificate:</i> Global Health Certificate
BS	1997	Double Degree: Electrical Engineering, Physics, Tuskegee University, Tuskegee, AL

PROFESSIONAL EXPERIENCE

2020 – present	Faculty, Department of Health Behavior, University of North Carolina Gillings School of Global Public Health, Chapel Hill, NC
2015 – 2018	Gillings Pasteur Postdoctoral Fellow, Department of Enteric Viruses, Institut Pasteur, Paris, France <i>Research:</i> Environmental and Human Surveillance of Poliovirus and other Enteroviruses in Madagascar
2008 – 2015	Graduate Research Assistant, Department of Environmental Sciences & Engineering, University of North Carolina Gillings School of Global Public Health, Chapel Hill, NC
2009	Research Assistant, Deshpande Foundation Global Exchange Program, Bhageerath (Non-governmental Organization), Hubli, India
2011 – 2012	Research Assistant, Rogers Road Eubanks Neighborhood Association (RENA), Community Advocacy Group Volunteer, Chapel Hill, NC
2000 – 2002	Engineer, Ford Motor Company, Dearborn, MI

FELLOWSHIP AND AWARDS

2015 – 2018	Dennis and Mireille Gillings Foundation Fellowship, University of North Carolina Gillings School of Global Public Health and Pasteur Foundation
2011 – 2015	NIH (T32ES007018), University of North Carolina Gillings School of

Global Public Health

2008 – 2011 The Public Health Service Training Grant – NIH (US Department of Health and Human Services Public Health Service), University of North Carolina Gillings School of Global Public Health

PUBLICATIONS AND PRESENTATIONS*Peer-reviewed research papers*

P Grozdanov, ML Joffret, A Stoyanova, **P Polston**, E Achouri, I Nikolova, F Delpeyroux, A Galabov. Genome Analysis of Coxsackievirus B1 Isolates during the Consecutive Alternating Administration Course of Triple Antiviral Combination in Newborn Mice. *Antiviral Chemistry & Chemotherapy* 2019.

ML Joffret, **PM Polston**, R Razafindratsimandresy, M Bessaud, JM Heraud, F Delpeyroux. Whole Genome Sequencing of Enteroviruses Species A to D by High-Throughput Sequencing: Application for Viral Mixtures. *Frontiers in Microbiology – Virology Section* 2018.

M Bessaud, S Sadeuh-Mba, ML Joffret, R Razafindratsimandresy, **P Polston**, R Volle, M Rakoto-Andrianarivelo, B Blondel, R Njouom, F Delpeyroux. Whole Genome Sequencing of Enterovirus Species C Isolates by High-throughput Sequencing: Development of Generic Primers. *Frontiers in Microbiology – Virology Section* 2016.

PM Polston, RA Rodriguez, K Seo, M Kim, G Ko, MD Sobsey. Field evaluation of an improved cell line for the detection of human adenoviruses in environmental samples. *Journal of Virological Methods* 2014.

RA Rodriguez, **PM Polston**, MJ Wu, J Wu, MD Sobsey. An Improved Infectivity Assay Combining Cell Culture with Real-Time PCR for Rapid Quantification of Human Adenoviruses 41 and Semi-Quantification of Human Adenovirus in Sewage. *Water Research* 2013.

Poster presentations

Environmental and Human Surveillance of Polioviruses and other Enteroviruses in Madagascar: Impact of the Trivalent to Bivalent Oral Polio Vaccine Switch. **PM Polston**, ML Joffret, R Razafindratsimandresy, A Ghozlane, M Bessaud, JM Heraud, F Delpeyroux. Poster Presentation. EuroPic 2018. Egmond aan Zee, the Netherlands. June 2018.

Environmental and Human Surveillance of Polioviruses and other Enteroviruses in Madagascar: Impact of the Trivalent to Bivalent Oral Polio Vaccine Switch. **PM Polston**, ML Joffret, R Razafindratsimandresy, A Ghozlane, M Bessaud, JM Heraud, F Delpeyroux. Poster Presentation. Institut Pasteur, Department of Enteric Viruses Conference. Paris, France. October 2017.

The Development of Novel Microbial Indicators Used for Environmental Tracking of Biosolid Contaminants. **PM Polston**, E Rodgers-Vieira, MD Aitken, JR Stewart. Poster Presentation. American Society for Microbiology. Boston, MA. June 2014.

The Development of Novel Microbial Indicators Used for Environmental Tracking of Biosolid

Contaminants. **PM Polston**, E Rodgers-Vieira, MD Aitken, JR Stewart. Poster Presentation. Water Microbiology Conference. Chapel Hill, NC. May 2014.

Field Evaluation of an Improved Transactivated Cell Line for the Detection of Enteric Adenoviruses. **PM Polston**, RA Rodriguez, M Kim, G Ko, MD Sobsey. Poster Presentation. American Society for Microbiology. New Orleans, LA. May 2011.

The Use of the Cellular Housekeeping Gene GAPDH as Control for the Performance of Infection Assays of Adenoviruses Isolated from Sewage. **PM Polston**, RA Rodriguez, MJ Wu, MD Sobsey. Poster Presentation. American Society for Microbiology. San Diego, CA. May 2010.

Oral presentation

Environmental and Human Surveillance of Polioviruses, VDPVs, and other Enteroviruses in Madagascar: Impact of the Trivalent to Bivalent Oral Polio Vaccine Switch. **PM Polston**, ML Joffret, R Razafindratsimandresy, A Ghozlane, M Bessaud, JM Heraud, F Delpeyroux. Oral Presentation. Virology Department. Institut Pasteur. Paris, France. September 2018.

TEACHING ACTIVITIES

Instructor

2020 Instructor, MPH Practicum Preparation (SPHG 701) University of North Carolina Gillings School of Global Public Health

Adjunct Instructor

2019 Adjunct Instructor, Foundations of Public Health (SPHG 351) University of North Carolina Gillings School of Global Public Health

Scientific Instructor

2015 – 2016 Scientific Instructor, International Genetically Engineered Machine (iGEM) Competition at Massachusetts Institute of Technology (MIT) for Institut Pasteur Paris Team

2014 Scientific Preceptor, Project IMHOTEP, University of North Carolina Gillings School of Global Public Health Department of Environmental Sciences & Engineering

Teaching Assistant

2011 Graduate Teaching Assistant, Summer Fellows Program, Introduction to Public Health, University of North Carolina Gillings School of Global Public Health

2010 Graduate Teaching Assistant, Summer Fellows Program, Introduction to Public Health, University of North Carolina Gillings School of Global Public Health

Mathematics Instructor

2006 – 2007 Mathematics Instructor, College Algebra, Community College of Baltimore County - Catonsville

LEADERSHIP AND SERVICE

2019 - present Board Member (3-year term), Public Health Foundation Board, University of North Carolina at Chapel Hill Gillings School of Global Public Health

2014 – 2015 Co-President, Student Government, University of North Carolina at Chapel Hill Gillings School of Global Public Health.

2009 – 2011 Co-President (2 terms), Minority Student Caucus (MSC), University of North Carolina at Chapel Hill Gillings School of Global Public Health.

2009 – 2015 Representative, Deans Council for Gillings School of Global Public Health, Student Government Association for Gillings School of Global Public Health, Gillings School of Global Public Health Diversity and Inclusion Task Force-Co-Committee Chair, Gillings School of Global Public Health Diversity and Inclusion Task Force Student Representative, Ethnicity Culture and Health Outcomes (ECHO) Advisory Board, Various Administrative School Search Committees, Gillings School of Global Public Health Recruiter.