EMANUELE SOZZI, Ph.D., EU P.E.
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Background Summary

- Research Assistant Professor at the UNC Environmental Microbiology Labs
- Public health researcher at the world-renowned Water Institute, which is part of the top-ranked UNC Gillings School of Public Health – ranked as #1 public school of public health in the U.S. and #2 overall
- Consultant at the top U.S. mgmt. consulting company Accenture
- PI (primary investigator) on NSF and other international grants
- Consultant for top international governmental, non-governmental and private organizations, such as World Health Organization (WHO), MSF (Doctors without Borders) and Oxfam
- I am able to think quickly, deliver under pressure and I have management and financial skills unique among my peers in the public health sector
- Legal permanent resident – authorized to work immediately

Main Interests

- I am interested in leading a research team in the areas of control of domestic and global WaSH-related infectious diseases
- My work focuses on antimicrobial resistance, CoVid-19, Ebola, cholera, microbiome, bacterial- and viral-metagenomic, the disinfection of high-risk human waste and the investigation and control of water- and wastewater-related outbreaks

Examples of successfully ongoing and completed projects

Pathogens in humans	**Microbes in water and wastewater**
○ Reducing environmental transmission of (SARS)CoV-2 and airborne viruses through PPE decontamination ○ Estimating the proportion of Carbapenem-Resistant Enterobacteriaceae (CRE) cases that are community-associated and detecting community transmission ○ Assessing long-term impacts of (SARS)CoV-2 on the human microbiome and the impact on the body absorption and uptake of inorganic arsenic (proposal) ○ Evaluating Rt, survival, and viability of coronaviruses in airborne respirable particles - lab mgmt. support only ○ Understanding/mitigating airborne transmission of (SARS)CoV-2 via aerosols - lab mgmt. support only ○ Implementation of innovative sanitation safety planning framework in the EU ○ Disinfection of Ebola and other highly infectious viruses in high-risk human waste (HRHW) ○ Testing and enhancing the efficacy of peracetic acid for disinfection of surfaces and hospital HRHW ○ Definition of WaSH best practices during 2014 Ebola outbreak for Unicef and World Health Organization ○ Reformulating proprietary disinfectant for inactivation of protozoan cysts and chlorine-resistant pathogens ○ On-site disinfection of *V. cholerae* during Haiti cholera epidemic and infectious diseases control consulting work for Doctors without Borders (MSF), Oxfam etc.	○ Wastewater based epidemiology (WBE) for quantification of CoVid-19 and metagenomic analyses (work-in-progress proposal) ○ Assessing the impact of hurricane Florence and Matthew on drinking water safety in NC ○ Pilot-scale evaluation of point-of-use UVC LEDs for disinfection of domestic well water ○ Analyses of reclaimed water and sewage samples from major US utility to improve reuse processes ○ Operation of a pilot-scale sequencing batch reactor for the treatment of dairy wastewater and development of a computer simulation model for the same SBR ○ MSF water and sanitation supervisor at three cholera treatment centers ○ Optimization of a farm multilane ww treatment plant and optimization of post-treatment of activated excess sludge

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Summary of Skills

Strong analytical skills. Experienced in project design and effective scientific presentation.
Capability to apply business and project management skills in a research environment
High adaptability to new work environments and company cultures
Ability to working with and managing of international team members
Strong project coordination and management skills

EDUCATION

PhD, Global Public Health and Microbiology
School of Environment and Technology – University of Brighton – United Kingdom
Dissertation: Low-cost physico-chemical disinfection of human excreta in emergency settings
MSc, Environmental and Infrastructure Engineering
School of Environmental Engineering – Polytechnic University of Milan – Italy – Final grade: 92/100
Master's Thesis: Treatment of Dairy Wastewater in a Granular Sludge Sequencing Batch Reactor: Lab Scale Experiments and Computer Simulation
BEng, Environmental and Infrastructure Engineering (MSc – BEng program)
School of Environmental Engineering – Polytechnic University of Milan – Italy

RESEARCH EXPERIENCE

My research focuses on the control of infectious disease outbreaks – such as Ebola and cholera – and antimicrobial resistance. I collaborate with colleagues at governments, other Universities, and NGO's around the world, including the World Health Organization, and continuously develop novel proposals to expand the work of my group. I have a track-record of successful proposal submission and I currently am the Principal Investigator (PI) on: 1) a National Science Foundation (NSF) funded grant focused on community work to prepare NC communities to be more resilient to extreme weather events; and 2) an international grant where I am managing an innovative water-reuse project in the EU and its public health implications. I co-PI several other projects, mostly related to the control of antimicrobial resistance and the control of infectious diseases. All led projects have been either successfully completed or are currently on track. Estimated volume of grants portfolio: $320k for projects I PI and approx. $1 million for projects I co-PI. The number of supervised employees – a variable number of junior and senior research assistants, students and PhD researchers and postdocs – is between 10 and 15.

Research Assistant Professor April 2021 – onward
UNC Gillings School of Global Public Health, Chapel Hill, NC **and**
Research Associate Jan 2018 – April 2021
UNC Gillings School of Global Public Health, Chapel Hill, NC **and**
Postdoctoral Fellow Feb 2016 – Jan 2018
UNC Gillings School of Global Public Health, Chapel Hill, NC

Selected projects

- Reducing (SARS)CoV-2 environmental transmission and transmission of other airborne viruses through effective decontamination of PPE for emergency reuse. Non-pathogenic viruses and well-characterized non-infectious animal coronaviruses are used here as performance indicators
- Assessing the long-term impacts of the (SARS)CoV-2 and COVID-19 on the human microbiome, the extent to which microbiome characteristics influence risk and severity of COVID-19 infection (including likelihood of asymptomatic carriage), and the impact of COVID-19 on the body absorption and uptake of inorganic arsenic (iAs) (work-in-progress proposal)

- Evaluating the residence time, survival, and viability of coronaviruses (using non-pathogenic bacteriophages and non-infectious animal coronaviruses) in airborne respirable particles and the effects of light, O_3, temperature, and humidity on these parameters – lab mgmt. support only
- Understanding/mitigating airborne transmission of (SARS)CoV-2 via sub-micron airborne particles (aerosols) – lab mgmt. support only
- Assessing how extreme weather events impact private wells' water quality, both microbiologically and chemically and how proximity to hog farms, septic systems and sewage treatments systems contributes to these impacts. Providing recommendations for recovery and resilience
- Managing the first Italian implementation of Sanitation Safety Planning to water reuse for irrigation for top EU water and wastewater utility. Assessing the practice of irrigation reuse in an experimental site at which all health exposure routes for microbial and chemical contaminants are monitored
- Wastewater monitoring for detection and quantification of CoVid-19 (work-in-progress proposal)
- Estimating the proportion of Carbapenem-Resistant Enterobacteriaceae (CRE) cases that are community-associated and detecting transmission of carbapenem resistance within the community. This work is part of the effort to address the public health threat represented by CRE
- ENVR 421 'Environmental Health Microbiology' – course leader plus mentorship of grad students
- SPHG 600: 'Introduction to Public Health' – co-course leader – acad. year 2021
- Setting-up the Water Institute's Water Science Innovation (WSI) Lab and *Learning Community*
- Reformulating proprietary disinfectant to enhance inactivation of protozoan cysts and other chlorine-resistant pathogens: evaluation of several candidate chemical disinfectant combinations with respect to the inactivation of *C. perfringens* spores and *Cryptosporidium parvum* oocysts. Includes Integrated Cell Culture q-PCR (ICC q-PCR) analyses
- ICC q-PCR analyses of reclaimed water and sewage samples from major water utility: improving current wastewater reuse processes and providing risk-management related recommendations
- Optimizing on-site disinfection and assessing survival of Ebola and other viruses in High Risk Human Wastes (HRHW) and sewage: implementation of effective onsite management systems in health care and other critical settings to reduce the risks of the spread of emerging pathogens
- Testing and enhancing the efficacy of peracetic acid for disinfection of hospital waste and surfaces in emergency situations
- Pilot-scale evaluation of point-of-use UVC LEDs for disinfection of domestic well water
- Developing and piloting the first integrated and scalable regional One Health monitoring, analysis, and decision support tool designed for local actors and policy makers who need to assess antimicrobial resistance (AMR) hazards and prioritize interventions to control risks
- Writing WaSH related grants - background, research design, analysis and budget development - corresponding to several million $ requested funds. Funding agencies: CDC, NSF, B&M Gates Foundation, USAID etc. 6 submissions recently funded, 2 pending review and 2 in development
- Contributing to the development and implementation of the World Health Organization global surveillance program of the *Tricycle Project* to detect, quantify and characterize ESBL *E. coli* in clinical, animal and environmental samples as a One Health Approach for global AMR surveillance
- Evaluating candidate diagnostic culture media for ESBL *E. Coli* in environmental samples as a One Health indicator system for World Health Organization global antimicrobial resistance surveillance program. Pro-Bono work for the World Health Organization Tricycle Project

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PhD Research April 2012 – Dec. 2015

School of Environment and Technology – University of Brighton – United Kingdom

- SANIMEDE (Sanitary Intervention in Medical Emergencies) project for the on-site disinfection of *Vibrio cholerae* and other bacteria and viruses in High Risk Human Wastes (HRHW): design of onsite management systems in emergency settings to reduce the spread of emerging pathogens
- Contributed to the development of the World Health Organization documentation related to recommended WaSH best practices during the West Africa 2014 Ebola outbreak
- Pro bono consulting work for *Médecins Sans Frontiéres* (Doctors without Borders) during the interventions for the prevention of infectious disease outbreaks in Haiti
- Pro bono consulting work for Oxfam during the interventions in the Philippines and Myanmar

Teaching & Mentoring Experience as Graduate Research Assistant April 2012 – Dec. 2015

School of Environment and Technology – University of Brighton – United Kingdom

- 'Water and Environmental Mgmt' for 'Master in Environ. Science' – co-course leader – acad. year 2013-14
- Guest Lecturer for the Ebola interest group at the London School of Hygiene and Trop. Medicine
- Guest Lecturer for the Construction Mgmt. and Civil Engineer. 'Design Week' – acad. year 2014
- Taught Mathematics tutorial classes – acad. year 2012-13, 2013-14 and 2014-15
- Taught Construction Materials tutorial classes – acad. year 2014-15
- Several other guest lectureships incl. 'Water and Environ. Mgmt' for 'Master in Env. Science'
- Contributed significantly to the background, research design, analysis of several grant submissions including the successful submission of a GBP 120,000 USAID grant
- Mentorship of undergrad and master students, assisted in the development of course content and assignments, evaluated students by providing written feedback and grades

CONSULTING EXPERIENCE

Water and Sanitation Engineer and Researcher Nov. 2010 – Oct. 2011

Médecins Sans Frontiéres – Doctors without borders, Nederland, Germany, Haiti

- Water and sanitation (WATSAN) supervisor at three cholera treatment centres (CTCs)
- Led disinfection of High Risk Human Wastes contaminated by *V. cholerae* and other pathogens
- Designed and implemented pilot plant and large scale treatment plants
- Supervised staff members working on supply of potable water for hospitals

Management Consultant 2005 – 2012

Accenture Europe (Italy Germany and Switzerland)

Successfully managed 10 large projects covering a wide range of business areas such as:

- Strategy definition for the reorganization of business units. BPM and PPM
- Development and implementation of organizational performance management tools
- Management of database implementations and implementation new target operating models
- Design of new test centers. Test management during rollout of new test centers and banks merge
- Coordination during development of new IT platforms aiming at improvement of client service

Junior Research Assistant 2003 – 2004

Water Quality and Waste Mgmt. Department – Munich Technical University, Munich, Germany

- Operation of a pilot-scale sequencing batch reactor designed for the optimization of a dairy wastewater treatment plant and supervision of internship student
- Development of a calculation model for the computer simulation of the same pilot-scale reactor
- Masters dissertation based on laboratory data and computer model results

Junior Lab Technician 2002

Water Quality and Waste Mgmt. Department – Vienna Technical University, Vienna, Austria

- Assisting two engineers working at the Water Quality and Waste Mgmt. Department
- Optimization of a farm multilane wastewater (ww) treatment plant
- Optimization of post-treatment of activated excess sludge produced in a ww treatment plant

For more information, please also see: https://waterinstitute.unc.edu/about-us/staff/emanuele-sozzi/
https://www.linkedin.com/in/emanuele-sozzi/
Attachment: list of publications and conference presentations

PUBLICATIONS AND CONFERENCE PRESENTATIONS

Selected Publications

- Megan A. Stallard, Riley Mulhern, Emily Greenwood, Taylor Franklin, Lawrence S. Engel, Michael B. Fisher, Mark D. Sobsey, Hania Zanib, Rachel T. Noble, Jill R. Stewart, **Emanuele Sozzi**. Occurrence of male-specific and somatic coliphages and relationship with rainfall in privately-owned wells from peri-urban and rural households. *Water Research X* (2021), doi: https://doi.org/10.1016/j.wroa.2021.100102
- Riley Mulhern, Megan Stallard, Hania Zanib, Jill Stewart, **Emanuele Sozzi**, Jackie MacDonald Gibson. *Are point-of-use water filters safe for private wells? Evaluating the occurrence of microbial indicator organisms in activated carbon block water filters treating private well water*. IJHEH (2021 – in press)
- Megan A. Stallard, Riley Mulhern, Jonathan S. Kim, Katiana DeYonke, Hania Zanib, Lawrence S. Engel, Michael B. Fisher, Mark D. Sobsey, Jill R. Stewart, Elizabeth Christenson-Diver, **Emanuele Sozzi**. Occurrence of antibiotic resistant bacteria of clinical relevance in privately-owned wells from low-income US peri-urban and rural households *EHP* (2021 – under review)
- Patrick Munket […] The Global Sewage Surveillance project consortium incl. **Sozzi E**. […] Frank M. Aarestrup *Global sewage metagenomics provides unparalleled insight into spatial, taxonomic, and genomic evolution of antimicrobial resistance* (2021 - under journal review)
- Leifels, M., Dan, C., **Sozzi, E.**, Shoults, D.C., Wuertz, S., Mongkolsuk, S., Sirikanchana, K. (2020) *Capsid integrity quantitative PCR to determine virus infectivity in environmental and food applications; a systematic review*. Water Research https://doi.org/10.1101/2020.05.08.20095364
- Pruden, A., Alcalde, R., Alvarez, P., Ashbolt, N., Bischel, H., Capiro, N., Crossette, E., Frigon, D., Grimes, K., Haas, C., Ikuma, K., Kappell, A., LaPara, T., Kimbell, L., Li, M., Li, X., McNamara, P., Seo, Y., Sobsey, M., **Sozzi, E.**, Navab-Daneshmand, T., Nguyen, Thanh H., Raskin, L., Riquelme, M., Vikesland, P., Wigginton, K., Zhou, Z. (2018) *An Environmental Science and Engineering Framework for Combating Antimicrobial Resistance*. Environmental Engineering Science. May 2018 https://doi.org/10.1089/ees.2017.0520
- Anthonj, C., Fleming, L., Ambelu, A., Cronk, R., Godfrey, S., **Sozzi, E.**, Bevan, J., Bartram, J. (2019). *Improving Monitoring and Water Point Functionality in Rural Ethiopia*. Water – Special Issue Monitoring and Governance of Water and Sanitation Services and Water Resources for Sustainable Development – doi: 10.3390/w10111591 http://www.mdpi.com/2073-4441/10/11/1591/pdf

- Leifels, M., Shoults, D., Wiedemeyer, A., Ashbolt, N., **Sozzi, E.**, Hagemeier, A. and Jurzik, L. (2019) *Capsid Integrity qPCR—An Azo-Dye Based and Culture-Independent Approach to Estimate Adenovirus Infectivity after Disinfection and in the Aquatic Environment*. Water – Special Issue Water Quality Impacts of Contaminant Transport and Transformation https://www.mdpi.com/2073-4441/11/6/1196/pdf
- **Sozzi, E.** and Baloch N., Strasser, J., Fisher, M.B., Leifels, M., Camacho, J., Mishal, N., Elmes, S.F., Allen, G., Gadai, G., Valenti, L., Sobsey, M.D. (2018) *A Bioassay-based Chemical Neutralization Protocol to Determine the Disinfectant Dose to Treat Highly Infectious Human Faecal Waste: A Case Study on Benzalkonium Chloride*. Internat. Journal of Hygiene and Environmental Health. https://www.sciencedirect.com/science/article/pii/S1438463917307332?via%3Dihub
- WHO – Ebola Virus Disease – *Key Questions and Answers Concerning Water, Sanitation and Hygiene.* Dec. 2014 http://www.who.int/water_sanitation_health/WASH_and_Ebola.pdf
- **Sozzi, E.**, Fabre, K., Fesselet, J.-F., Ebdon, J.E. and Taylor, H.D. (2015). *Minimizing the risk of disease transmission in emergency settings: novel in situ physico-chemical disinfection of pathogen-laden hospital wastewaters*. Plos Neglected Tropical Diseases. June 25, 2015 https://doi.org/10.1371/journal.pntd.0003776
- Taylor, H., Fesselet, J.-F., **Sozzi, E.**, Curtis, T., and Mahama, A. *Cutting the cholera risk – alternative approaches for medical centre wastewater treatment*. Water21. Issue Aug 2011, pp. 47
- Wichern M., Schwarzenbeck N., Lübken M., **Sozzi E.**, Horn H. *Treatment of dairy wastewater with aerobic granular sludge - Experiences and mathematical modelling*. GWF, Wasser - Abwasser (2008) 149(3)

Selected publications under review or in advance stage of preparation

- **Sozzi E**.*, Mishal N.* Valenti L.*, Strasser J., Fisher M., Leifels M., Camacho J., Baloch N., Elmes SF, Allen G., Gadai G., Bailey, E. and Sobsey MD (under journal review). *Chlorination of High-Risk Human Faecal Waste for Disinfection is Ineffective at Practical* Doses. (2021) PLOS Neglected Tropical Diseases
- **Sozzi E**., Strasser J., Mishal N., Valenti L., Fisher M., Leifels M., Camacho J., Baloch N., Elmes SF, Allen G., Gadai G., Bailey, E. and Sobsey MD (advanced stage of preparation). *Sodium Hypochlorite based Disinfection of MS2 and PhiX-174 as Surrogates of Highly Infectious Enveloped Viruses in a Conservative Matrix of Raw Hospital Sewage and Human Fecal Waste*. (2021) PLOS Global Public Health
- Christopher H. Arehart, Jay H. Arehart, Vanja Dukic, Bernadino D'Amico, Michael Z. David, **Emanuele Sozzi**, Francesco Pomponi (under internal review based on editor's response). *Predicting COVID-19 infections around the world: a customizable model using demographics and policy scenarios.* Harvard Data Science Review
- Claire Dust, Megan A. Stallard, Riley Mulhern, Emily Greenwood, Taylor Franklin, Larry Engel, Michael B. Fisher, **Emanuele Sozzi**, Marc Serre (planned). *Modelling the risk ratio outcomes of privately-owned groundwater wells in a rural community through Bayesian Maximum Entropy and geospatial mapping*
- Bignami F., Lucentini L., Oliva D., Bernardi M., **Sozzi E**. (in prep). *Sanitation Safety Plans based risk analysis of wastewater reuse*. Water Research X
- **Emanuele Sozzi**, Luther Bartelt, Jamie Xiao, Trey Kanumuambidi, Arash Naziripour, Laura Ruegsegger, Dylan Brown, Felicia Williams, Yuang Zhu, Xiao Bin Zhu, Tarun Prakash, Berkley

Wood, Jatin Chandra Srivastava, Megan A. Stallard, Steven H. Marshall, Susan D. Rudin, Mark D. Sobsey (under review). *The BioWipe: A Non-invasive Method to Detect Intestinal Carriage of Multi-Drug Resistant Gram-negative Bacteria*. Antimicrobial Resistance & Infection Control

Selected conference presentations

- DeYonke, K., Stallard, M., Fisher, MB, Greenwood, E., Kim, J., **Sozzi, E**. *Privately-owned groundwater wells harbor cefotaxime-resistant enteric Gram-negative bacteria with multidrug resistant properties*. Platform presentation. UNC Water and Health. Chapel Hill, NC, 2020
- Sobsey, M., Koltun, A., T. Chai, T., Casanova, L., Jacob, M., **Sozzi, E.** *Evaluation of Candidate Diagnostic Culture Media for ESBL* E. coli *in Environmental Samples as a One Health Indicator System for Global Antimicrobial Resistance Surveillance*. Poster. CDC ICEID, Atlanta, GE, 2018
- **Sozzi, E.**, Strasser, J., Baloch M., Allen, G., Camacho, J., Elmes, S.F., Gadai, G., Mishal, N., Valenti, L., Bailey E., Casanova, L. Leifels, M., Sobsey, M.D. *Rapid In Situ Physico-Chemical Disinfection of Hospital Sewage and Human Fecal Waste Contaminated with Ebola Virus Surrogates and Other Highly Infectious Viruses*. Platform presentation. UNC Water Micro. Chapel Hill, NC, 2017
- **Sozzi, E.**, Strasser, J., Allen, G., Baloch M., Camacho, J., Elmes, S.F., Gadai, G., Mishal, N., Valenti, L., Bailey E., Casanova, M., Sobsey, M.D. *Management of Hospital Sewage and Human Fecal Waste Contaminated with Ebola and other Highly Infectious Viruses through Rapid In Situ Physico-Chemical Disinfection*. Platform pr. and poster. AEESP conference. Ann Arbor, MI, 2017
- Elmes, S.F., **Sozzi, E.**, Strasser, J., Baloch M., Allen, G., Camacho, J., Gadai, G., Mishal, N., Valenti, L., Bailey E., Casanova, M., Sobsey, M.D. *Survival of Virus Surrogates in Hospital Sewage and Human Fecal Waste Contaminated with Ebola Virus Surrogates and other Highly Infectious Viruses*. Platform and poster presentation. UNC Water Micro. Chapel Hill, NC, 2017
- **Sozzi, E.**, Strasser, J., Allen, G., Baloch M., Camacho, J., Elmes, S.F., Gadai, G., Mishal, N., Valenti, L., Bailey E., Casanova, M., Sobsey, M.D. *Hospital Sewage and Human Fecal Waste Contaminated by Ebola Virus: Why is Chlorine-Based Disinfection a Risk*. Platform. WRRI, Raleigh, NC, 2017
- Brown, K.M., **Sozzi, E.**, Sobsey, M.D. *Methods for Surveillance of Antimicrobial Resistant Bacteria in Environmental Water and Wastewater*. Platform presentation. WRRI, Raleigh, NC, 2017
- Sozzi, E. et al. UN 'Merit360 - *Action Plan 001' for the promotion and the definition of the UN Sustainable Development Goal No. 6*. https://issuu.com/worldmerit/docs/ap001_separate
- **Sozzi, E.**, Fesselet, J.-F., Taylor, H.D. *Latest updates on novel approaches to the treatment and disinfection of wastewaters from cholera treatment centres*. Platform presentation. IWA Conference - Disinfection and Inactivation for Water, Wastewater and Sludge, Mexico City, 2012
- **Sozzi, E.**, Fesselet, J.-F., Taylor, H.D. *Novel approaches to the treatment and disinfection of cholera treatment centre wastewaters*. Platform presentation. 9th IWA Leading-Edge Conference on Water and Wastewater Technologies, Brisbane, Australia, 2012
- Wichern, M.; Schwarzenbeck, N; Lübken, M.; **Sozzi, E.**; Horn, H (2008) *Optimizing SBR reactor operation for treatment of dairy wastewater with aerobic granular sludge*. 4th Sequencing Batch Reactor Conference, Rom, Italy, 7.-10.4.2008

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AWARDS

- Felix Harvey Award 2020. https://provost.unc.edu/posts/2017/11/28/c-felix-harvey-award/
- The UNC environmental microbiology laboratory I direct was awarded two gold medals for best laboratory practices from UNC EHS in 2017 and 2018
- Brighton Santander Travel Grant 2013. Building a long-term UK-Brazil academic collaboration

PROFESSIONAL AFFILIATIONS

Senior chartered professional engineer (PE) at European Union Engineering Council (EU PE – Italian Council) – sections: civil and environmental (a), industrial (b) and IT/electric (c)

LANGUAGE SKILLS

Italian – advanced
German – advanced
French – intermediate
Spanish – basic

PROFESSIONAL SERVICE

World Health Organization Visiting Scientist and Advisor
Reviewer of high profile research grants for NERC – UK Natural Env. Research Council www.nerc.ac.uk
Reviewer for top scientific journals such as *British Medical Journal, Journal of Water and Health, Science of the Total Environment* – full list available.
Water and Health and *Water Micro* International Conferences 2014 – 2020: contributor and reviewer

COMMUNITY SERVICE AND OTHER ACTIVITIES

Pro bono consulting work for World Health Organization,
Médecins Sans Frontiéres and Oxfam 2013 – present
PhD student representative and student mentor at the University of Brighton 2013 – 2014