dPHE 3rd anniversary workshop and panel

July 6th 2022 ,1-9pm

Roberts Building 106

Malet Place, UCL

Detailed programme

Time	Speaker	Affiliation	Talk title
1:00 PM	Registration		
Session 0: Welcome			
1:30	Prof Patty Kostkova	Centre for Digital Public Health in Emergencies, University College London, UK	Welcome & Introduction: Digital One Health and Digital Interventions - MEWAR, COVID19 and 3 years of dPHE
Session 1: Vector-borne disease surveillance and modeling using mobile and IoT technology			
Session chair: Tercio Ambrizzi, University of Sao Paulo			
1:45	Tiago Massoni & Giselle Moreno	Federal University of Campina Grande, Brazil & University of São Paulo, Brazil	Mosquito surveillance in northeast Brazil - how it works and lessons learned
2:00	Wellington Pinherio dos Santos & Ana-Clara Gomes de Silva	Universidade Federal de Pernambuco, Brazil & Polytechnique School of the University of Pernambuco	Spatiotemporal forecasting for dengue, chikungunya fever and zika using machine learning and artificial expert committees based on meta-heuristics
2:15	Aisha Aldosery	Centre for Digital Public Health in Emergencies, University College London, UCL, UK	Smart Mosquito Ovitraps and Mobile Surveillance
2:30	Anwar Musah	Department of Geography, University College London, UK	Use of spatiotemporal models for predicting the burden of mosquito infestation in Brazilian cities
2:45	Dinarte Vasconcelos	ITI, LARSYS, Instituto Superior Técnico, Lisbon, Portugal	Acoustic Sensors for Monitoring Ecosystem
3:00	Coffee break		
Session 2: Digital Interventions - COVID-19 and beyond			
Session chair: Dr Mohammad Shamsudduha, IRDR UCL			

3:30	Patty Kostkova, Aisha Aldosery and Adrian Brown	Centre for Digital Public Health in Emergencies, University College London, UK Centre of Obesity Research, University College London, UK	My Activity Journal App project - supporting citizens during lockdown
3:45	Lan Li and Ava Sullivan	Centre for Digital Public Health in Emergencies, University College London, UK & EcoHealth Alliance, USA	Zoom or not to Zoom
4:00	Miguel Ribeiro	Técnico, University of Lisbon, Portugal	Madeira Safe App
4:15	Bob Spence	Department of Electrical and Electronic Engineering, Imperial College London, UK	The Impact of Images
4:30	Lisa Danquah	Centre for Digital Public Health in Emergencies, University College London, UK	Improving Contact Tracing in Sierra Leone: The Ebola Contact Tracing Study
Session 3: Environmental and Cultural Factors in One Health Surveillance			
Session chair: Dr Zeynep Engin, Computer Science, University College London			
4:45	Ava Sullivan	Centre for Digital Public Health in Emergencies, University College London, UK & EcoHealth Alliance, USA	Anthropogenic Activities Influencing Spillover Risk
5:00	Iuri Valério Graciano Borges	University of São Paulo - Institute of Astronomy, Geophysics and Atmospheric Sciences (USP/IAG), Brazil	Dengue in Recife: Analysis of the interrelationship between precipitation and confirmed cases from a climatic, geographic and public health perspective
5:15	Luiza Campos, and Clarisse Lins de Lima	Department of Civil, Environmental and Geomatic Engineering, University College London, UK Polytechnique School of the University of Pernambuco (Poli-UPE), Brazil	Water and sanitation conditions in the MEWAR's case study areas
5:30	Coffee break		

Session 4: Strategic Panel: One Health in the era of Global Warming			
Session chair: Prof Andrew Heyward, Institute of Epidemiology and Health Care, University College London			
6:00	Prof Geraint Rees	Vice Provost (Research, Innovation and Global Engagement), University College London, UK	Welcome Remark
6:00	Prof Andrew Heyward	Institute of Epidemiology and Health Care, University College London, UK	Introductions of panelists
6:10	Prof Patty Kostkova	Centre for Digital Public Health in Emergencies, University College London. UK	Panel member lightning talks
	Prof Kate Jones	Centre for Biodiversity and Environment Research, University College London, UK	
	Prof Julio Davilla	Development Planning Unit, University College London, UK	
	Dr Tiago Massoni	Federal University of Campina Grande, Brazil	
	Prof Andrew Cunningham	Institute of Zoology, Zoological Society of London, UK	
6:30	Panel discussion		
7:25	Prof Patty Kostkova	Centre for Digital Public Health in Emergencies, University College London, UK	Closing remarks
7:30 Drinks and canapes reception			
9:00	End		

Session 0: Welcome

1:30 pm Welcome address and introduction: Digital One Health and Digital Interventions - MEWAR, COVID19 and 3 years of dPHE

Prof Patty Kostkova, Centre for Digital Health in Public Emergencies, University College London

Patty is Professor in Digital Health and the Director of UCL Centre for Digital Public Health in Emergencies (dPHE). She was a consultant at WHO, ECDC, Sky, Telefonica. Her research investigates mobile surveillance in Brazil, maternal health in Nepal and antibiotic stewardship in Nigeria and the NHS. During COVID-19, she lead an award winning project My Lockdown Journal.
In 2019 and 2020, Patty won the 'Innovator of the Year' Award by Computing Women in IT Excellence Awards and the prestigious Coronaprofile by Business Science, while her team won the Team of the Year 2020 Award by Computing Rising Stars Awards. Patty published over 230 peer-reviewed papers, and is the Editor in chief of Frontiers in Digital Public Health, and General and Scientific Chair of International Public Health Conference since 2009.
Twitter: @pattykostkova
Website: https://www.ucl.ac.uk/risk-disaster-reduction/people/dr-patty-kostkova

Session 1: Vector-borne disease surveillance and modeling using mobile and IoT technology

Session chair: TBC

1:45pm: Mosquito surveillance in Northeast Brazil - how it works and lessons learned

Dr Tiago Massoni, Federal University of Campina Grande

Currently an associate professor at UFCG, Campina Grande, Brazil. He holds a Ph.D. in software engineering from the Federal University of Pernambuco. His research interests include social aspects of software engineering, software evolution and formal methods.
Website: massoni.computacao.ufcg.edu.br
Twitter: @tiagomassoni

2:00pm: Spatiotemporal forecasting for dengue, chikungunya fever and zika using machine learning and artificial expert committees based on meta-heuristics

Prof Wellington Pinheiro dos Santos, Universidade Federal de Pernambuco

Wellington Pinheiro dos Santos holds a PhD in Electrical Engineering from the Federal University of Campina Grande (2009), Brazil. He is currently Associate Professor at the Department of Biomedical Engineering at the Center for Technology and Geosciences-Escola de Engenharia de Pernambuco, Federal University of Pernambuco. He has experience in the area of Computer Science, with an emphasis on Graphic Processing (Graphics), working mainly on the following topics: digital image processing, pattern recognition, computer vision, evolutionary computing, numerical optimization methods, computational intelligence, image formation techniques, virtual reality, game design and applications of Computing and Engineering in Medicine and Biology. He is a member of the Brazilian Society of Biomedical Engineering (SBEB), the Brazilian Society of Computational Intelligence (SBIC), and the International Federation of Medical and Biological Engineering (IFMBE).

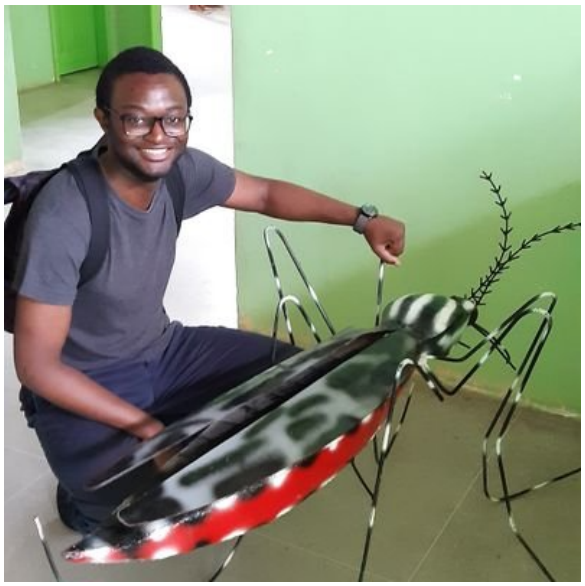
2:15pm: Smart Mosquito Ovitraps and Mobile Surveillance

Aisha Aldosery, Centre for Digital Public Health in Emergencies, University College London

Aisha Aldosery is a PhD candidate at UCL IRDR Centre for Digital Public Health in Emergencies (dPHE). She moved to London in 2018 and earned her master's degree in Software System Engineering from UCL. Aisha is doing her PhD research on the Internet of Things (IoT) in the context of digital health, specifically vector-borne diseases. Aisha's PhD research project investigates the Internet of Things (IoT) and sensing technologies for predicting mosquito populations to combat vector-borne diseases in Northeast Brazil and Madeira Island - a pertinent global issue with global research significance. Her research aims to combine water, acoustic and environmental sensors for insect sensing and classification – should her IoT sensing system demonstrate the results, we envisage it will be a groundbreaking success.
Twitter: @aisha_tec
Website: https://www.ucl.ac.uk/risk-disaster-reduction/people/phd-students/aisha-aldosery

2:30pm: Use of spatiotemporal models for predicting the burden of mosquito infestation in Brazilian cities

Dr Anwar Musah, Department of Geography, University College London



Anwar Musah is a lecturer at UCL's Department of Geography. Broadly, his research interests focus on the application of statistical modelling, geospatial analysis and data science to public health and social sciences (with a regional focus on the Global South). His interdisciplinary background to date has led him to apply these primarily to areas of infectious disease epidemiology (e.g. cholera, COVID-19, soil-transmitted helminths & schistosomiasis) and medical entomology (e.g. surveillance of arboviruses in Brazil). He has a growing interest in areas of fire hazards & safety and quantitative criminology from an African perspective.

2:45: Acoustic Sensors for Monitoring Wildlife

Dinarte Vasconcelos, ITI, LARSYS, Instituto Superior Técnico

[[Awaiting bio]]

Session 2: Digital Interventions - COVID-19 and beyond

Session chair: Prof Susan Michie, Centre for Behaviour Change at University College London

Susan Michie, FMedSci, FAcSS, FBA is Professor of Health Psychology and Director of the Centre for Behaviour Change at University College London, UK. (www.ucl.ac.uk/behaviour-change). Professor Michie's research focuses on human behaviour change in relation to health and the environment: how to understand it theoretically and apply theory and evidence to intervention and policy development, evaluation and implementation. Her research, collaborating with disciplines such as information science, environmental science, computer science and medicine, covers population, organisational and individual level interventions. She is an investigator on 12 research projects and has published >550 journal articles and several books, including the *Behaviour Change Wheel: A Guide to Designing Interventions*. She chairs WHO's Behavioural Insights and Sciences Technical Advisory Group, has participated in UK's Scientific Advisory Group in Emergencies (SAGE) and is part of the Behavioural Science Policy Research Unit advising the UK's Department of Health and Social Care.

Website: https://tinyurl.com/susan-michie

Email s.michie@ucl.ac.uk

Twitter: @SusanMichie

3:30pm: My Activity Journal App project - supporting citizens during lockdown

Prof Patty Kostkova, Centre for Digital Health in Public Emergencies, University College London

Patty is Professor in Digital Health and the Director of UCL Centre for Digital Public Health in Emergencies (dPHE). She was a consultant at WHO, ECDC, Sky, Telefonica. Her research investigates mobile surveillance in Brazil, maternal health in Nepal and antibiotic stewardship in Nigeria and the NHS. During COVID-19, she lead an award winning project My Lockdown Journal.
In 2019 and 2020, Patty won the 'Innovator of the Year' Award by Computing Women in IT Excellence Awards and the prestigious Coronaprofile by Business Science, while her team won the Team of the Year 2020 Award by Computing Rising Stars Awards. Patty published over 230 peer-reviewed papers, and is the Editor in chief of Frontiers in Digital Public Health, and General and Scientific Chair of International Public Health Conference since 2009.
Twitter: @pattykostkova
Website: https://www.ucl.ac.uk/risk-disaster-reduction/people/dr-patty-kostkova

Dr Adrian Brown, Centre of Obesity Research, University College London

Dr Adrian Brown is a Senior Research Fellow & Lecturer In Nutrition and Dietetic at UCL and Senior Specialist Weight Management Dietitian with >16 years of clinical experience. He is Vice Chair of Obesity Specialist group for BDA, on the strategic council for the APPG on Obesity and honorary Academic at OHID (previously Public Health England). His research interests centre around obesity, type 2 diabetes, bariatric surgery, weight stigma and the low energy diets in different patient populations and he led on three UK national surveys looking at the impact of COVID-19 on people living with obesity and clinical services.

Aisha Aldosery, Centre for Digital Public Health in Emergencies, University College London

Aisha Aldosery is a PhD candidate at UCL IRDR Centre for Digital Public Health in Emergencies (dPHE). She moved to London in 2018 and earned her master's degree in Software System Engineering from UCL. Aisha is doing her PhD research on the Internet of Things (IoT) in the context of digital health, specifically vector-borne diseases. Aisha's PhD research project investigates the Internet of Things (IoT) and sensing technologies for predicting mosquito populations to combat vector-borne diseases in Northeast Brazil

and Madeira Island - a pertinent global issue with global research significance. Her research aims to combine water, acoustic and environmental sensors for insect sensing and classification – should her IoT sensing system demonstrate the results, we envisage it will be a groundbreaking success.
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Website: https://www.ucl.ac.uk/risk-disaster-reduction/people/phd-students/aisha-aldosery

3:45pm: Zoom or not to Zoom

Ava Sullivan, EcoHealth Alliance & University College London

Ava Sullivan is a research scientist and PhD student with dual affiliations at University College London, Institute of Risk and Disaster Reduction, department of Digital Public Health in Emergencies, and EcoHealth Alliance, an NGO based in New York City. Ava has her Master's degree in Environmental Health and Disaster Management from Tulane University School of Public Health and Tropical Medicine. Ava is interested in the complex pathways driving viral spillover, and in particular, exposure to animal hosts driven by human behavior. Ava is interested in using qualitative methods to characterize these complex human behaviors and assess risk to prevent future pandemics.

Lan Li, Centre for Digital Public Health in Emergencies, University College London

Lan is a PhD student at dPHE, IRDR. Her research topic is integrating behavioural theory into digital intervention to increase vaccine confidence. She is interested in social media data analysis, digital health, behaviour change and vaccination hesitancy studies.
Twitter: @LAN67676474

4:00pm: Madeira Safe App

Miguel Ribeiro, Técnico, University of Lisbon

Miguel Ribeiro, is a Ph.D. student in Engineering and Computer Science at Técnico, University of Lisbon. In his PhD, he is investigating how to strategically deploy and implement (community-based) IoT infrastructure to collect big data related to mobility flow, and environmental conditions mainly based on passive Wi-Fi. Before, he worked as a research assistant for more than two years at M-ITI/ARDITI. He got

a Master Degree in Informatics Engineering at the University of Madeira also in the area of soft and hard sensing via passive Wi-Fi analytics.

Prof Pedro F. Campos, Computer Engineering Department, University of Madeira

Pedro F. Campos is Associate Professor with Habilitation at the Department of Informatics and Interactive Media Design, Univ. of Madeira. He is also Deputy President for Scientific Affairs of ITI/LARSyS (Interactive Technologies Institute), and National Representative for IFIP's Technical Committee on Human-Computer Interaction. Pedro has more than 120 peer-reviewed papers published in HCI venues and journals.

4:15pm: The Impact of Images

Prof Bob Spence, Department of Electrical and Electronic Engineering, Imperial College London

Bob Spence is currently Emeritus Professor of information Engineering at Imperial College London as well as a Teaching Fellow. He is principally known for his pioneering work in human-computer interaction, and especially his design of interfaces. These include the first computer-aided system (MINNIE) for the interactive graphic design of electronic circuits, placed on the international market in 1985 by a company he formed and, more recently (2021), the interface for a smartphone that allows someone with Type-1 diabetes to self-manage their condition. Last month he self-published “Engineering can be fun: an academic’s engagement with the information age”, looking back over more than 6 decades of his engineering experience.

4:30pm: Evaluating digital health interventions for contact tracing in Sierra Leone

Dr Lisa Danquah,I nstitute for Risk and Disaster Reduction, University College London

Lisa is a Lecturer in Global Health at the UCL Institute for Risk and Disaster Reduction. She is interested in the use of digital technologies for contact tracing with a focus on Emerging Infectious Diseases in Low- and Middle-Income Countries, particularly in countries in sub-Saharan Africa. She is particularly interested in viral haemorrhagic fevers, including Ebola virus disease, Marburg virus disease and Lassa fever. She works closely with the Centre for Digital Public Health in Emergencies and contributes to the work through a shared interest and research on improving the use of digital technologies to improve global health, preparedness and response to worldwide emergencies, with her focus being on humanitarian emergencies of emerging infectious outbreaks.

Session 3: Environmental and Cultural Factors in One Health Surveillance

Session Chair: Dr Zeynep Engin, Computer Science, University College London

Dr Zeynep Engin has recently joined the Alan Turing Institute taking two roles as the Open Infrastructure Strategy Lead & AI for Science and Government Theme Lead for Tools, Practices & Systems. Prior to this, she has been a Senior Research Associate at UCL Computer Science, introducing and leading UCL's interdisciplinary and cross-sector research agendas around Algorithmic Governance, Digital Ethics and GovTech. Zeynep is also the Founding Director of Data for Policy CIC, a global community of interest that runs the top conference in this space; and the (founding) Editor-in-Chief for the first open-access journal in this field, Data & Policy, published by Cambridge University Press. She has over ten years of executive experience in the non-profit sector and obtained her PhD in Bioengineering and Computational Neuroscience from Imperial College London.

4:45pm: Anthropogenic Activities Influencing Spillover Risk

Ava Sullivan, EcoHealth Alliance & University College London

Ava Sullivan is a research scientist and PhD student with dual affiliations at University College London, Institute of Risk and Disaster Reduction, department of Digital Public Health in Emergencies, and EcoHealth Alliance, an NGO based in New York City. Ava has her Master's degree in Environmental Health and Disaster Management from Tulane University School of Public Health and Tropical Medicine. Ava is interested in the complex pathways driving viral spillover, and in particular, exposure to animal hosts driven by human behavior. Ava is interested in using qualitative methods to characterize these complex human behaviors and assess risk to prevent future pandemics.

5:00pm: Dengue in Recife: Analysis of the interrelationship between precipitation and confirmed cases from a climatic, geographic and public health perspective

Iuri Valério Graciano Borges, University of São Paulo - Institute of Astronomy, Geophysics and Atmospheric Sciences (USP/IAG)

Master student in the Post-Graduate Program in Meteorology at IAG/USP, participates in MEWAR working with cases of dengue and precipitation in the city of Recife/Brazil. Bachelor in Meteorology from UNESP. During graduation, he was supported for a Scientific Initiation project by the Scientific Development Council of Brazil, working with a precipitation field from rainfall measurements and precipitation estimates from weather radar, as well as conducted a research on the effect of tropospheric ozone in the cerrado from the region of Bauru/Brazil, the latter being the subject of his Final paper.

5:15pm: Water and sanitation conditions in the MEWAR's case study areas

Dr Luiza Campo, Department of Civil, Environmental, and Geomatic Engineering, University College London

Luiza Campos is a civil engineer specializing in water and sanitation with over 30 years of experience, including academia and industry. She is currently an Associate Professor of Environmental Engineering at the Department of Civil, Environmental and Geomatic Engineering of UCL and Co-Director of the UCL Centre for Urban Sustainability and Resilience. Her research focuses on design and evaluation of cost-effective water/sanitation technologies and interventions to reduce environmental pollution and improve public health and wellbeing. Her research is divided in three main areas: (1) advancing developments in water treatment technologies; (2) exploring interlinkages in the water nexus; and (3) promoting improvements in sanitation, hygiene and health.

Clarisse Lins de Lima, Polytechnique School of the University of Pernambuco (Poli-UPE)

Clarisse received her bachelor's and master's degrees in Biomedical Engineering from the Federal University of Pernambuco. She is currently a Ph.D. student in Computer Engineering at the Polytechnic School of the University of Pernambuco (Poli-UPE), and her research focuses on the spatiotemporal forecast of diseases transmitted by the Aedes aegypti mosquito in the city of Recife-PE. Her areas of interest are computational intelligence, digital epidemiology, biomedical computing, and artificial intelligence applied to medicine and biology.

Session 4: Strategic Panel: One Health in the era of Global Warming

6:00pm: Welcome remark

Prof Geraint Rees, Vice Provost (Research, Innovation and Global Engagement), University College London

Prof Geraint Rees is Vice Provost (Research, Innovation and Global Engagement), responsible for providing vision and academic leadership for UCL's world-leading research, knowledge exchange and global engagement across an outstanding comprehensive university, maximising UCL's collective impact on the world. He is a non-executive Director of UCL Business, one of the UK's most successful technology transfer companies, and was a Senior Scientific Advisor at DeepMind from 2018-2020. Previously he served as Pro-Provost (Academic Planning) from 2021-22, and was Dean of the UCL Faculty of Life Sciences from 2014 to 2022. With a professional background as a neurologist and neuroscientist, his research seeks to understand the neural basis of human cognition and uses machine learning to develop novel solutions to global healthcare challenges. He has published over 300 research papers, and was elected a Fellow of the Academy of Medical Sciences in 2010.

6:05 pm: Panel chair introduction

Professor Andrew Hayward, Institute of Epidemiology and Health Care, University College London

Andrew Hayward is UCL Professor of Infectious Disease Epidemiology and Inclusion Health and Director of the UCL Institute of Epidemiology and Health Care. He is chief investigator of the Flu Watch and Virus Watch studies. These large scale community cohorts investigate transmission , social risk factors and immunity to seasonal and pandemic infections. Andrew is a member of the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) and the SAGE transmission subgroup.

6:10: Panel member lightning talks

Prof Patty Kostkova, Centre for Digital Health in Public Emergencies, University College London

Patty is Professor in Digital Health and the Director of UCL Centre for Digital Public Health in Emergencies (dPHE). She was a consultant at WHO, ECDC, Sky, Telefonica. Her research investigates mobile surveillance in Brazil, maternal health in Nepal and antibiotic stewardship in Nigeria and the NHS. During COVID-19, she lead an award winning project My Lockdown Journal.

In 2019 and 2020, Patty won the 'Innovator of the Year' Award by Computing Women in IT Excellence Awards and the prestigious Coronaprofile by Business Science, while her team won the Team of the Year 2020 Award by Computing Rising Stars Awards. Patty published over 230 peer-reviewed papers, and is the Editor in chief of Frontiers in Digital Public Health, and General and Scientific Chair of International Public Health Conference since 2009.
Twitter: @pattykostkova
Website: https://www.ucl.ac.uk/risk-disaster-reduction/people/dr-patty-kostkova

Prof Kate Jones, Centre for Biodiversity and Environment Research, University College London

Kate Jones is Professor of Ecology and Biodiversity in the Dept. of Genetics, Evolution & Environment, UCL and Director of the People and Nature Lab. She is a world-leading ecologist whose work focuses on crossing disciplinary boundaries to address critical global challenges, especially at the interface of ecological and human health. She has made key advances in monitoring the health of ecosystems and particularly in modeling and forecasting zoonotic disease outbreaks in humans, breaking down traditional barriers between ecology, climate change and public health to inform global policy.

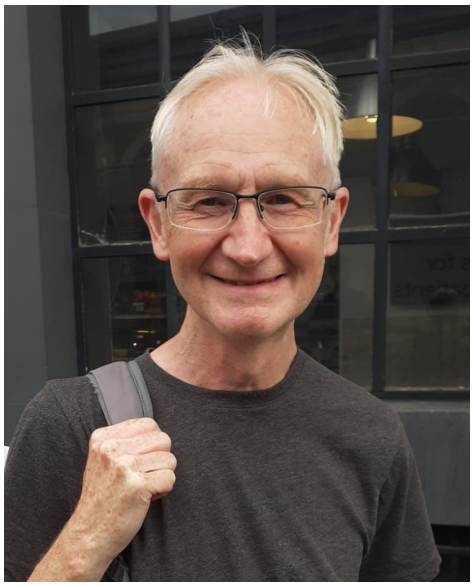
Prof Julio D. Dávila, Development Planning Unit, University College London

Julio D. Dávila is Professor of Urban Policy and International Development, and former Director, The Bartlett Development Planning Unit, UCL. A civil engineer and urban development planner with international experience in research and consultancy projects in 15 countries in Latin America, the Middle East, Africa and Asia. Research on local government in progressive social and political transformation; governance of urban and peri-urban infrastructure, (transport, and WATSAN); rapid urbanisation and health. Fellow, Institution of Civil Engineers (UK).

Dr Tiago Massoni, Federal University of Campina Grande

Currently an associate professor at UFCG, Campina Grande, Brazil. He holds a Ph.D. in software engineering from the Federal University of Pernambuco. His research interests include social aspects of software engineering, software evolution and formal methods.
Website: massoni.computacao.ufcg.edu.br
Twitter: @tiagomassoni

Prof Andrew Cunningham, Institute of Zoology, Zoological Society of London



Professor Andrew Cunningham, Deputy Director of Science at the Zoological Society of London, investigates disease threats to wildlife conservation, including the drivers of disease emergence and zoonotic spill-over. He was awarded a CSIRO medal for co-discovering *Batrachochytrium dendrobatidis* as a cause of global amphibian declines, a Royal Society Wolfson Research Merit Award for his work on zoonotic viruses in African bats and, in 2016, he was appointed a Fellow of the Royal College of Veterinary Surgeons for meritorious contributions to learning. Since its inception in 2021, he has been a member of the WHO/OIE/FAO/UNEP One Health High Level Expert Panel.