



One Health, One World Day



College of
Osteopathic Medicine
MICHIGAN STATE UNIVERSITY



Institute for Global Health
MICHIGAN STATE UNIVERSITY

2022

November 09

INTERDISCIPLINARY SCIENCE TECHNOLOGY BUILDING

East Lansing, Michigan



One Health, One World Day

2022

Antimicrobial Resistance and Climate Change

<https://msu.zoom.us/j/91920059080?pwd=cnpMWWQ0ZnMxYmRRK1N3ckNZWVdUZz09>

HYBRID EVENT
Meeting ID: 919 200 59080
Passcode: 226415

PROGRAM AT A GLANCE

Wednesday November 9th, 2022

9:30 am to 10:00am	Registration and Coffee Break at ISTB Building Main Hall
10:00am	Opening remarks: Dr. William Cunningham (Welcome) Dr. Andrea Amalfitano (The relation on One Health and Osteopathic Medicine) -COM- Dr. Melinda Wilkins (One Health Education Expanded) -CVM-
10:00am to 10:45am	Dr. Gyanendra Gongal (AMR: Challenges and Opportunities) -HM-
10:45am to 11:10am	Dr. Megan Milbrath (Pollinators, Food Safety and Climate Change) -CANR-
11:10am to 11:30am	Dr. Ramjee Ghimire (One Health in EAP) -CANR-
11:30am to 12:00pm	Dr. Shannon Manning (Antimicrobial Resistance Foordborn Pathogens: A One Health Concern.) - CVM-
12:00am to 12:30pm	Dr. Douglas Buhler (Closing comments) -CANR-
12:30pm to 1:00pm	Lunch at ISTB Building Main Hall
1:00pm to 1.15pm	End of the session



SPEAKERS information

Andrea Amalfitano, D.O., PhD



He is one of the 33 DO-PhD graduates. He completed the Program in 1990, receiving a PhD in Microbiology. Amalfitano was recruited to MSU from Duke University in 2005 to be the Osteopathic Heritage Foundation Endowed Professor of Pediatrics, Microbiology & Molecular Genetics. A \$1.5M proposal was funded by the Osteopathic Heritage Foundation to establish this endowed professorship at MSUCOM. The endowment provides flexible funds to support

Amalfitano's research. As an Associate Professor at Duke University in the Department of Pediatrics and the Department of Pathology, Molecular Genetics, and Microbiology, Amalfitano investigated the potential for gene therapy to treat muscular dystrophy, also known as Pompe disease. The disease is caused by genetic defects in the enzyme called acid maltase, also called acid alpha-glucosidase (GAA). The enzyme breaks down glycogen (stored sugar) in muscle cells. In its most severe form, it rapidly takes the lives of babies in their first year. Young children, teenagers, and adults are also affected by Pompe disease, resulting in wheelchair dependence, respiratory failure and death. Since his arrival at Michigan State University, Amalfitano's research productivity is evidenced by numerous publications, over 48 in the last seven years, and the many collaborative research partnerships he has established at MSU. In 2009, Amalfitano was awarded a 3-year, \$480,000 grant from the MSU Foundation to establish the MSU Center for Vaccine Development and Deployment. This Center utilizes advanced generation adenovirus-based gene transfer vectors as preventative and/or therapeutic vaccine platforms for malaria and other diseases. Amalfitano was in a Pediatric Residency Program at Mayo Clinic and a Fellow at the University of Michigan in the Department of Human Genetics. Amalfitano is the major professor for two of the current DO-PhD students, David Rastall and Dionisia Quiroga.

- Dean of the College of Osteopathic Medicine at Michigan State University.
- Field/Interest:** pediatrics, human genetics.
- Email:** amalfit1@msu.edu

Douglas Buhler, PhD



Dr. Douglas Buhler focuses on food, environment and international research programs at MSU, a role he began full time in late 2021.

Buhler was director of MSU AgBioResearch from 2013 to 2021 and will continue to work closely with AgBioResearch and partner units to advance MSU research in areas of mutual interest. Buhler is a native of Wisconsin and received his B.S. degree from the University of Wisconsin-Platteville and M.S. and Ph.D. degrees

from the University of Nebraska. He began his career at the University of Wisconsin-Madison from 1984 to 1989 and later went to work for the United States Department of Agriculture-Agricultural Research Service from 1989 to 2000. He joined MSU as professor and chair of the Department of Crop and Soil Sciences and served in that position from 2000 to 2005.

From 2005 to 2010, he was associate director of MSU AgBioResearch and associate dean for research for the College of Agriculture and Natural Resources (CANR). Buhler served as interim dean of the CANR from 2011 to 2013 and again in 2016.

Buhler's professional activities have generated over 330 publications including 130 refereed journal and review articles. He has been an author or editor of three books and presented over 100 invited seminars, symposia and workshops. He is a fellow of the American Society of Agronomy, Crop Science Society of America, Weed Science Society of America and North Central Weed Science Society, and he is a Distinguished Alumni of the University of Wisconsin-Platteville. He serves on numerous boards and advisory panels including the Foundation for Food and Agriculture Research, the Center for Food Integrity, the Michigan Grape and Wine Industry Commission and the Michigan Crop Improvement Association.

- Assistant Vice President for Research and Innovation at Michigan State University.
- Field/Interest:** food, environment and international research programs
- Email:** buhler@msu.edu



William Cunningham, DO, MHA

Dr. William Cunningham is the Associate Dean for Global Health for the College of Osteopathic Medicine and the Director of the Institute for Global Health at Michigan State University. Dr. Cunningham was Chief Resident in the Akron General Emergency Medicine program and practiced emergency medicine for over twenty years. He has been active in medical education for his entire professional career serving as an Associate Director in an

Emergency Medicine Residency and as Director of Medical Education at Metro Health/University of Michigan Hospitals in Grand Rapids, Michigan.

At Michigan State University College of Osteopathic Medicine, he was appointed to the Curriculum Committee Revision Task Force and served in that capacity for three years until the completion of the project. He has served for 4 years on the Admission Committee for College of Osteopathic Medicine.

As Director of the Institute for Global Health he has expanded the footprint of research, education and capacity building to fourteen countries on four continents. He co-founded the Global/One Health committee at MSU five years ago. He initiated the development of an on-line Masters in Global Health which started in January 2020.

Dr. Cunningham's passion is to continuously build relationships that will create programs and good will to bring hope and health to our communities and the world.

- Associate Dean for Global Health and the Director of the Institute for Global Health (IGH) at the College of Osteopathic Medicine at Michigan State University.
- Field/Interest:** One Health, Emergency Medicine
- Email:** cunni164@msu.edu

Melinda Wilkins DVM, MPH, PhD.



An alumna of the US Centers for Disease Control and Prevention's Epidemic Intelligence Service, Wilkins earned her DVM at MSU, her MPH from the University of Illinois Springfield, and then returned to earn her PhD from the MSU Department Large Animal Clinical Sciences with a focus in epidemiology. Her areas of expertise include disease surveillance (animal and human), surveillance system evaluation, zoonotic disease, epidemiology, and outbreak investigation. She was an assistant professor, instructor, and advisor in the Program in Public Health (PPH). Prior to joining the PPH in 2011, Wilkins was with the Michigan Department of Community Health, Bureau of Epidemiology, Division of Communicable Disease for 12 years, serving as the division director from 2004 to 2011. She began her career with the US Department of Agriculture Veterinary Services and has extensive experience consulting and teaching in international settings. Dr. Wilkins' experience with governmental agencies and industry, as well as in research and university environments, brings a set of skills that makes her uniquely her actual role at MSU. She is passionate about mentoring professionals and offering educational opportunities to those individuals who are already on the front lines, working to make and keep our food supply safe.

- Associate Professor, Department of Veterinary Population Medicine (VPM), University of Minnesota
- Field/Interest:** food safety, public health, one health, zoonotic diseases, epidemiology.
- Email:** wilkinsm@msu.edu

Gyanendra Gongal DVM, MScEpid



Gyanendra Gongal is working as a Senior Public Health Officer Technical Officer under World Health Emergency Programme in the WHO Regional Office for South-East Asia (SEARO). He received Doctor of Veterinary Medicine from Moscow Veterinary Academy and did MSc on Epidemiology from the Freie University of Berlin. He worked in various capacities under Ministry of Health as well as Ministry of Agriculture in Nepal for 17 years.

He joined World Health Organization in 2006 and he has been one of the active members of the regional tripartite group (FAO-OIE-WHO) in the Asia-Pacific region to advocate operationalization of 'One Health' since 2010. He has been involved in developing regional strategy, guidelines and policy papers for prevention and control of emerging infectious diseases including zoonoses, food safety and antimicrobial resistance. He has been involved in Codex meetings and involved in providing technical support for strengthening Codex activities at country level through Codex Trust Fund. He has attended more than 350 national and international meetings and workshops and published more than 70 policy advocacy and technical papers on transboundary animal diseases, zoonoses, food safety and One Health in international journals. He is a peer reviewer for 24 international journals. He received young scientist award from Nepal Academy for Science and Technology in 1999 and WHO Reward for Excellence in 2016. He is fellow of the Indian Association of Veterinary Public Health Specialists. He is a Member of the One Health Network for the Global Governance of Infectious Diseases and AMR Advisory Committee in Canada.

- Senior Public Health Officer
- Field/Interest:** food safety, one health, zoonotic diseases
- Email:** gongalg@who.int

Megan Milbrath MPH, Ph.D.



Dr. Meghan Milbrath is a beekeeper and the coordinator of the Michigan Pollinator Initiative at Michigan State University. She performs pollinator related research and extension work, and works with beekeepers and stakeholders around the country. She started keeping bees over 20 years ago, and currently owns and manages a The Sand Hill apiaries, where she manages 150-200 colonies for queen rearing and nuc production.

- Assistant Professor, Department of Entomology
- **Field/Interest:** Health of honey bees and other pollinators
- **Email:** mpi@msu.edu

Ramjee Ghimire Ph.D.



Dr. Ramjee Ghimire is multidisciplinary researcher cum development specialist on education and sustainable development, including agricultural development. He earned a Ph.D. in Community, Agriculture, Recreation and Resource Studies from Michigan State University, Michigan, USA in 2016. He provides oversight to international short courses in food safety and zoonotic diseases.

Collaborating with research and extension officials and university faculty

Dr. Ghimire has led many research and outreach initiatives for demand-driven, participatory, and pluralistic extension services and facilitated training programs for extension professionals and agricultural entrepreneurs in Asia, Africa, and USA. Prior to joining MSU, Dr. Ghimire served for over 16 years at the Department of Livestock Services in Nepal providing technical and administrative oversight to district livestock extension programs and departmental monitoring and evaluation. He also had the privilege of coordinating with several stakeholders including ministries to develop national rangeland policy for Nepal. He led several collaborative projects on animal disease prevention and control and community development with national and international NGOs including FAO, USAID, Winrock International, among others. He served as the Editor-in-Chief of the Policy and Research Brief Editorial Committee and contributed to several other NAPA Committees (e.g., Resource Capacity Building Committee). Dr. Ghimire has been serving as a reviewer for over half a dozen journals and he is widely published.

- Researcher State of Michigan; Outreach Specialist and Director for International Short Courses in “Food Safety” and “Zoonotic Diseases”, Michigan State University; Assistant Adjunct Professor Institute for Global Health.
- **Field/Interest:** One Health, Food Safety, Zoonotic Diseases.
- **Email:** ghimirer@msu.edu

Shannon Manning MPH, Ph.D.



Shannon Manning is a Michigan State University (MSU) Foundation Professor in the Department of Microbiology and Molecular Genetics (MMG). She earned her M.P.H. and Ph.D. from the University of Michigan (UM) in 1998 and 2001. For her postdoctoral training, she served as an emerging infectious diseases research fellow through the Centers for Disease Control and Prevention and held positions at UM and MSU. She joined the MMG faculty in 2010.

Her research focuses on the molecular epidemiology, evolutionary genetics, and pathogenesis of bacterial pathogens including diarrheagenic *Escherichia coli* and *Streptococcus agalactiae*. She is also interested in determining how pathogens and antibiotics impact the gut microbiome and contribute to antibiotic resistance. She has contributed to over 100 publications, serves as an Editor for *Scientific Reports* and *Microbiology Spectrum* and was recently selected as an American Society for Microbiology Distinguished Lecturer. Since joining the faculty in 2010, She has mentored 25 undergraduates, 21 graduate students and 13 postdoctoral researchers.

- MSU Foundation Professor
- Field/Interest:** molecular epidemiology, evolutionary genetics of infectious diseases.
- Email:** mannin71@msu.edu



West Fee Hall, 909 Wilson Road, Room B-320,
East Lansing, MI 48824 - T: 517-353-8992

ighealth.msu.edu

