# Eradication of Rheumatic Heart Disease: Assessing Research Challenges and Opportunities



### VIRTUAL WORKSHOP SERIES



November 1 - 8, 2021

- November 1, 2021: 8:00-10:30 a.m. EDT
- November 3, 2021: 8:00-10:00 a.m. EDT
- November 8, 2021: 8:30-11:00 a.m. EST

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### **AGENDA: SESSION 1**

#### Monday, November 1, 2021 from 8 AM to 10:30 AM US Eastern Time

#### Session Moderator:

• Mary Masterson, Ph.D., MS, AAAS Science and Technology Policy Fellow, Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute, National Institutes of Health

#### Welcome Addresses:

- George Mensah, MD, FACC, FCP(SA) Hon, Director, Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute, National Institutes of Health, USA
- David Goff Jr., MD, Ph.D., FACP,FAHA, Director, Division of Cardiovascular Sciences, National Heart, Lung, and Blood Institute, National Institutes of Health, USA
- Kathryn Taubert, MS, Ph.D., FAHA, FACC, FESC, Professor, UT Southwestern Medical Center at Dallas, Former Vice President, International Science & Health Strategies, AHA

#### **Opening Remarks:**

- Jonathan Carapetis, AM, MBBS, FRACP, FAFPHM, Ph.D., FAHMS, Director, Telethon Kids Institute, Head, Strep A and Rheumatic Heart Disease, Co-Director of REACH
- Andrea Beaton, MD, Pediatric Cardiologist, Outreach, Associate Professor, UC Department of Pediatrics Cincinnati Children's Hospital

#### **Working Group Presentations:**

- Primordial Prevention Working Group
  - o Maylene Shung King, MB ChB, Ph.D., Associate Professor, University of Cape Town, Working Group Lead
  - Andrew Steer, MBBS, BMedSci, MPH, FRACP, Ph.D., Professor, Director Infection and Immunity, Murdoch Children's Research Institute Melbourne, Working Group Lead
  - Natalia Korotkova Ph.D., Assistant Professor, Department of Microbiology, Immunology and Molecular Genetics, University of Kentucky, Working Group Member
  - Michael Baker MBChB, FNZCPHM, FAFPHM, FRACMA, DComH, DObst, Professor, Department of Public Health, University of Otago Wellington, Working Group Member
  - Karen Sliwa, MD, Ph.D., FESC, FACC, FAHA, DTM & H- Professor/Director, Hatter Institute for Cardiovascular research in Africa, University of Cape Town, Working Group Member
  - o Jerome Kim MD, Director General, International Vaccine Institute (IVI), Working Group Member

#### • Primary Prevention Working Group

- o Mark Engel, Ph.D., M.P.H., Associate Professor, University of Cape Town, Working Group Lead
- o Joselyn Rwebembera, MBChB, MMed, Medical Officer, Uganda Heart Institute, Mulago National Referral Hospital, Working Group Lead
- Chris Van Beneden, MD, MPH, Epidemiologist, Division of Bacterial Diseases, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Working Group Member
- Asha Bowen BA MBBS DCH FRACP Ph.D., Associate Professor, Head, Skin Health, Program Head of Vaccines and Infectious Diseases, Telethon Kids Institute, Working Group Member
- o James B Dale, Ph.D., Professor, The University of Tennessee Health Science Center, Working Group Member
- Katherine E. Fleming-Dutra, MD, Respiratory Diseases Branch, Division of Bacterial Diseases, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Working Group Member
- Amy Sanyahumbi, Pediatric Cardiologist, Baylor College of Medicine/Texas Children's Hospital, Working Group Member

#### **Open Discussion:**

• Moderator: Jonathan Carapetis, AM, MBBS, FRACP, FAFPHM, Ph.D., FAHMS, Director, Telethon Kids Institute, Head, Strep A and Rheumatic Heart Disease, Co-Director of REACH

#### Workshop Roadmap:

 Mary Masterson, Ph.D., MS, AAAS Science and Technology Policy Fellow, Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute, National Institutes of Health

### **AGENDA: SESSION 2**

#### Wednesday, November 3, 2021 from 8 AM to 10:00 AM US Eastern Time

#### Session Moderator:

• Makeda Williams, Ph.D., MPH, Global Health Program Director, National Heart, Lung, and Blood Institute, National Institutes of Health

#### **Opening Remarks:**

• Andrea Beaton, MD, Pediatric Cardiologist, Outreach, Associate Professor, UC Department of Pediatrics Cincinnati Children's Hospital

#### **Working Group Presentations:**

- Secondary Prevention Working Group
  - o Ganesan Karthikeyan, M.D., D.M. M.S., Professor of Cardiology, Cardiothoracic Sciences Centre, All India Institute of Medical Sciences, Working Group Lead
  - David A. Watkins, M.D., M.P.H., Assistant Professor, Division of General Internal Medicine, Department of Global Health, University of Washington, Working Group Lead
  - Babu Muhamed, Ph.D., Postdoctoral Fellow, The University of Tennessee Health Science Center, Working Group Member
  - Madeleine W. Cunningham, Ph.D., George Lynn Cross Research Professor, Presbyterian Health Foundation Presidential Professor Microbiology and Immunology Director, Immunology Training Program University of Oklahoma Health Sciences Center, Working Group Member
  - o Anna P. Ralph, Ph.D., Professor, Royal Darwin Hospital, Menzies School of Health Research, Working Group Member
  - o Rosemary Wyber, MBChB MPH FRACGP, Senior Technical Adviser, Strep A and Rheumatic Heart Disease team, Telethon Kids Institute, Perth Children's Hospital, Working Group Member
  - o Nona Sotoodehnia, MD, MPH, Associate Professor, Medicine, Cardiovascular Health Research Unit, University of Washington, Working Group Member

#### • Tertiary Prevention Working Group

- Marcelo Cardarelli, M.D. M.P.H., Pediatric Cardiac Surgeon, Inova Women and Children Hospital, Working Group Lead
- Liesl Zühlke, MBChB DCH FCPaeds Cert Card MPH FESC FACC MSc (HEOMCS) Ph.D., Professor, University of Cape Town, Working Group Lead
- Annette Ansong MD, FACC, Pediatric Cardiologist, Medical director, Cardiology Outpatient Services, Children National Medical Center, Working Group Member
- o Gene Bukhman, M.D., Ph.D., Director, Program in Global Noncommunicable Disease and Social Change, Harvard University, Working Group Member
- o Jeffrey Cannon Ph.D., Postdoctoral Research Fellow, Global Health and Population, Harvard T.H Chan School of Public Health, Working Group Member
- o Jacques Kpodonu, MD FACC, Faculty of Surgery, Division of Cardiac Surgery, Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Working Group Member
- Salome Maswine MBCHB, FCOG, MMED, Ph.D., Professor and Head of Global Surgery, University of Cape Town,
   Department of Cardiothoracic Surgery, Working Group Member
- Emmy Okello, MD, PH.D., FACC, Chief of Cardiology, Uganda Heart Institute, Mulago National Referral Hospital, Working Group Member
- o Bo Reményi MBBS, FRACP, Ph.D., Associate Professor, Royal Darwin Hospital, Menzies School of Health Research, Working Group Member
- o Craig Sable, MD, Associate Division Chief, Cardiology, Director, Echocardiography, Children's National Hospital, Working Group Member
- o Dominique Vervoort, MD, MPH, CPH, MBA, Ph.D., Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Working Group Member
- Chris Yilqwan MD, Ph.D., Associate Professor of Pediatrics, University of Jos, Working Group Member

#### **Open Discussion:**

• Moderator: Andrea Beaton, MD, Pediatric Cardiologist, Outreach, Associate Professor, UC Department of Pediatrics Cincinnati Children's Hospital

### **AGENDA: SESSION 3**

#### Monday, November 8, 2021 from 8:30 AM to 11:00 AM US Eastern Time

#### Session Moderator:

• Kathleen Fenton, MD, MS, Deputy Branch Chief, Advanced Technologies and Surgery Branch, Division of Cardiovascular Sciences, National Heart, Lung, and Blood Institute, National Institutes of Health

#### **Opening Remarks:**

 Ana Mocumbi, MD, Ph.D., Associate Professor, Department of Global Health, University of Washington/Eduardo Mondlane University

#### **Breakout Sessions:**

- Basic Science
  - Moderated by Jonathan Carapetis, AM, MBBS, FRACP, FAFPHM, Ph.D., FAHMS, Director, Telethon Kids Institute, Head, Strep A and Rheumatic Heart Disease, Co-Director of REACH
- Clinical Science
  - Moderated by Andrea Beaton, MD, Pediatric Cardiologist, Outreach, Associate Professor, UC Department of Pediatrics Cincinnati Children's Hospital
- Implementation Science
  - Moderated by Ana Mocumbi, MD, Ph.D., Associate Professor, Department of Global Health, University of Washington/Eduardo Mondlane University
- Breakout Room Summary:
  - Basic Science provided by Jonathan Carapetis
  - o Clinical Science provided by Andrea Beaton
  - o Implementation Science provided by Ana Mocumbi

#### **Open Discussion:**

 Moderated: Ana Mocumbi, MD, Ph.D., Associate Professor, Department of Global Health, University of Washington/Eduardo Mondlane University

#### **Next Steps and Action Items:**

 Kathleen Fenton, MD, MS, Deputy Branch Chief, Advanced Technologies and Surgery Branch, Division of Cardiovascular Sciences, National Heart, Lung, and Blood Institute, National Institutes of Health

#### **Closing Remarks:**

- George Mensah, MD, FACC, FCP(SA) Hon, Director, Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute, National Institutes of Health, USA
- David Goff Jr., MD, Ph.D., FACP,FAHA, Director, Division of Cardiovascular Sciences, National Heart, Lung, and Blood Institute, National Institutes of Health, USA

### **WORKSHOP MEETING CHAIRS**



#### Jonathan Carapetis, AM, MBBS, FRACP, FAFPHM, PhD, FAHMS

Director, Telethon Kids Institute Head, Strep A and Rheumatic Heart Disease, Co-Director of REACH

Dr. Carapetis is Director of the Telethon Kids Institute in Perth, Western Australia, a Professor at The University of Western Australia, a consultant pediatrician at Perth Children's Hospital, and is currently President of the Association of Australian Medical Research Institutes (AAMRI). His research interests include rheumatic fever and rheumatic heart disease, other group A streptococcal diseases, vaccine-preventable disease, Aboriginal child health, child and youth health, development and education, and skin sores and scabies.

Professor Carapetis undertook his medical training at the University of Melbourne and the Royal Melbourne and Royal Children's Hospitals. Previous positions include terms as Theme Director at the Murdoch Children's Research Institute in Melbourne and Director of the Menzies School of Health Research in Darwin.



#### Andrea Beaton, MD

Pediatric Cardiologist/Associate Professor UC Department of Pediatrics Cincinnati Children's Hospital

Dr. Beaton is an Associate Professor of Pediatrics and a Pediatric Cardiologist at Cincinnati Children's Hospital. She is a founding member of the Rheumatic Heart Disease Research Collaborative in Uganda (RRCU) which has collaboratively published over 40 studies across the translational spectrum in RHD research. Dr. Beaton is currently the Center Director of an American Heart Association Strategically Focused Research Network (ADD-RHD) that is developing technology-enabled approaches to get more patients living with RHD onto secondary antibiotic prophylaxis. She also led the GOAL Trial, determining the impact of secondary antibiotic prophylaxis on latent RHD, and will lead the follow-up study of these patients, GOAL-Post. Dr. Beaton has multiple leadership positions in the American Heart Association (immediate past-chair of the Rheumatic Fever, Endocarditis, and Kawasaki Disease Committee, International Committee, Epidemiology and Statistics Committee), World Heart Federation (Neglected Cardiac Disease Working Group), and World Health Organization (Chair, RHD Guideline Development Group).



#### Ana Mocumbi, MD, PhD

Affiliated Professor/Associate Professor Department of Global Health, University of Washington/Eduardo Mondlane University

Dr. Mocumbi is an Associate Professor of Cardiology at Universidade Eduardo Mondlane in Mozambique, Affiliated Professor at the Department of Global Health at the University of Washington and the Lead Researcher at the Non-Communicable Diseases (NCD) Division at the National Public Health Institute Mozambique (Instituto Nacional de Saúde). Her career focuses on poverty-related NCD, particularly neglected cardiovascular diseases, with special focus on cardiomyopathies, infectious-related conditions such as rheumatic heart disease, heart failure in children and women's cardiovascular health. She is Co-Chair of the Non-Communicable Diseases and Injuries of the Poorest Billion (NCDI Poverty) Network, and Co-Chaired of The Lancet Global Commission on Non-Communicable Diseases and Injuries of the Poorest Billion. She is Co-Chair of the Taskforce for Access to Reproductive Health Services for Women with Cardiovascular Disease and the World Heart Federation Working Group on Rheumatic Heart Disease Prevention and Control.

### **WORKSHOP WELCOME ADDRESSES**





Director, Division of Cardiovascular Sciences National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Goff, Jr., is the Director, Division of Cardiovascular Sciences, National Heart, Lung, and Blood Institute, National Institutes of Health. In this role, he leads a diverse team of scientists and administrators committed to turning discovery into cardiovascular health. Prior to joining the NHLBI, he served as Dean and Professor of Epidemiology in the Colorado School of Public Health and as Chair of the Department of Epidemiology and Prevention at the Wake Forest School of Medicine. He received an MD from the University of North Carolina and a PhD in epidemiology from the University of Texas-Houston School of Public Health. He trained in internal medicine at Baylor College of Medicine in Houston. He is an elected member of the American Epidemiological Society, and a Fellow of the American College of Physicians and the American Heart Association. He has published over 300 manuscripts, book chapters, and other scientific reports. The major focus of his research has been on developing, testing, and implementing better strategies for promoting cardiovascular health and preventing CVD.



#### George Mensah, MD, FACC, FCP(SA) Hon, FAHA

Director, Center for Translation Research and Implementation Science National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Mensah is a clinician-scientist who currently serves as the Director of the Center for Translation Research and Implementation Science at the National Heart, Lung, and Blood Institute (NHLBI), a part of the National Institutes of Health (NIH). In this role, Dr. Mensah leads a trans-NHLBI effort to advance late-stage translational research and implementation science to address gaps in the prevention, treatment, and control of heart, lung, and blood diseases and the elimination of related health inequities. His goal is to maximize the population health impact of advances made in fundamental discovery science and pre-clinical or early-stage translational research. Dr. Mensah is an honors graduate of Harvard University. He obtained his medical degree from Washington University and trained in Internal Medicine and Cardiology at Cornell. His professional experience includes more than 20 years of public health service between the U.S. Department of Veterans Affairs, the Centers for Disease Control and Prevention (CDC), and the NIH. In addition to his public service, Dr. Mensah had 15 years of experience in direct patient care, teaching, and research at Cornell, Vanderbilt, and the Medical College of Georgia (MCG). He was a full professor with tenure at MCG and is currently a Visiting Full Professor at the University of Cape Town, South Africa. Dr. Mensah has been admitted to fellowships in several national and international societies including the American Heart Association, American College of Cardiology, and the European Society of Cardiology. He is an Honorary Fellow of the College of Physicians of South Africa. He maintains active collaboration with several international groups to advance research on the global burden of diseases and risk factors.

### **WORKSHOP WELCOME ADDRESSES**



#### Kathryn Taubert, PhD, FAHA, FACC, FESC

Professor UT Southwestern Medical Center at Dallas Former Vice President, International Science & Health Strategies, AHA

Dr. Taubert is a former Vice President of International Science and Health Strategies for the American Heart Association (AHA). She is a permanent resident of Switzerland and is based in Interlaken. She is Professor of Cardiovascular Physiology at the University of Texas Southwestern Medical School. She received her doctorate in medical physiology (emphasis in cardiovascular pathophysiology) from the University of Texas Southwestern Medical Center and did her postdoctoral work in the department of cardiology at the Dallas VA Hospital. Patient studies there began her interest in rheumatic fever and rheumatic heart disease.

Prior to joining the AHA International Science Department, Dr. Taubert was the Chief Science Officer for the World Heart Federation in Geneva, Switzerland. She is a past member of the AHA's Rheumatic Fever, Endocarditis and Kawasaki Disease Committee. Throughout her career, Kathryn has spoken globally as an expert on rheumatic fever, infective endocarditis, Kawasaki disease, heart disease in women and in children, and primary and secondary prevention of atherosclerotic vascular disease. She has published more than 160 scientific papers and medical textbook chapters.

Dr. Taubert is a Board member of Reach (an organization dedicated to eliminating rheumatic fever/RHD). She is also a Fellow of the American Heart Association (FAHA), the American College of Cardiology (FACC), and the European Society of Cardiology (FESC). In 2000, she received the AHA Scientific Councils' Distinguished Achievement Award. In 2001, she received the Women in Cardiology Mentoring Award from the Council on Clinical Cardiology. In 2010, she received the Lifetime Achievement Award from the Kawasaki Disease Foundation, in 2011 she received the Award of Meritorious Achievement from the AHA, and in 2018 she received the Award for Outstanding Contribution to Cardiovascular Health from the World Heart Federation.



#### Maylene Shung King, MB, ChB, PhD

**Primordial Prevention Working Group Lead** Associate Professor

University of Cape Town

Dr. Shung-King is an Associate Professor in the Health Policy and Systems Division of the School of Public Health and Family Medicine at the University of Cape Town. She is medical doctor with further training in public health and holds a DPhil in Social Policy from Oxford University. Her passion, and her research and advocacy focus area is child health. She has contributed to the development of child health policy and programming in South Africa over the past 25 years and previously served as deputy director and then acting director of the Children's Institute, a child policy research and advocacy institute at the University of Cape Town. She is currently part of the multi-country Global Diet and Activity Research (GDAR) network, that focuses on researching NCD determinants and potential mitigating interventions in Africa and the Caribbean, with a specific focus on adolescents. She also convenes a postgraduate Diploma in Health Leadership.



#### Andrew Steer, MBBS, BMedSci, MPH, FRACP, PhD

#### **Primordial Prevention Working Group Lead**

Professor, Director Infection and Immunity Murdoch Children's Research Institute Melbourne

Dr. Steer is a pediatric infectious diseases physician at the Royal Children's Hospital Melbourne; Director of the Infection and Immunity Theme, and Group Leader of the Tropical Diseases Research Group at the Murdoch Children's Research Institute; and Professorial Research Fellow in the Department of Pediatrics, University of Melbourne. Andrew co-directs the Australian Strep A Vaccine Initiative and co-chairs the Strep A Global Vaccine Consortium. Andrew is a fellow of the Australian Academy of Health and Medical Sciences.



#### Michael Baker, MBChB, FNZCPHM, FAFPHM, FRACMA, DComH, DObst

#### **Primordial Prevention Working Group Member**

Professor

Department of Health, University of Otago Wellington

Dr. Baker is a public health physician and Professor in the Department of Public Health. He is passionate about opportunities to organize society in ways that promote health, equity, and sustainability. In 2013 Michael was awarded the Liley Medal (Health Research Council) for his contribution to the health and medical sciences. In 2014 he was a recipient of the Prime Minister's Science Prize as a member of He Kainga Oranga / Housing and Health Research Programme. In 2015 he was the NZ-UK Link Foundation Visiting Professor at the School of Advanced Study (SAS), University of London. His work during 2020-21 has been dominated by assisting with the Covid-19 pandemic response. Michael is a member of the Ministry of Health's Covid-19 Technical Advisory Group and has been a leading architect and advocate for the Covid-19 elimination strategy. He established a programme of research on the epidemiology, prevention, and control of Covid-19 in NZ and internationally (Co-Search), which has generated a large amount of published research and commentary aimed at improving the pandemic response. Michael's work on public health, and the Covid-19 response, in particular, was recognized by a number of recent awards, including the Critic and Conscience of Society Award (from Universities NZ), the Public Health Champion award (from the Public Health Association of NZ), being made a Member of the NZ Order of Merit (MNZM), his selection as the 2020 Wellingtonian of the Year, and the Prime Minister's Science Communication Prize in 2021.



#### Karen Sliwa, MD, PhD, FESC, FACC, FAHA, DTM&H

#### **Primordial Prevention Working Group Member**

Professor/Director

Hatter Institute for Cardiovascular research in Africa, University of Cape Town

Dr. Sliwa is a senior cardiologist working at the Division of Cardiology, Department of Medicine, Groote Schuur Hospital, University of Cape Town and at UCT Private Academic Hospital. Her special areas of expertise are heart failure, structural heart diseases such as cardiomyopathy and cardiac disease in pregnancy. She is the Director of the Cape Heart Institute, Faculty of Health Sciences, University of Cape Town- a translational cardiovascular research Institute with 7 working groups. Prof. Sliwa is widely recognised as a world expert in cardiovascular diseases (CVDs), with a special interest in reducing mortality in women with cardiac disease in maternity. She has contributed to better understanding on the pathophysiology, treatment options and awareness of peripartum cardiomyopathy (PPCM), a global disease particularly prevalent in African populations.

She led and still leads several inter-Africa and global research projects, which have had a major impact for creating knowledge about CVDs common in Africa and other Middle-to-Lower income regions, leading to changes in policy. Her considerable experience in setting up simple, cost-effective registries and web-based data entry platforms have had a major impact on planning several innovative research projects and has facilitated the training of physicians from several African countries, including Mozambique, Nigeria, Cameroon, Uganda and Tanzania. Her translational research from bench-bed-to-population studies have led to a much better understanding of CVDs such as rheumatic heart disease as rheumatic heart disease and heart failure due to various causes and subsequently to improved patient care.



#### Jerome Kim, MD

#### **Primordial Prevention Working Group Member**

Director General International Vaccine Institute (IVI)

Dr. Kim is an international expert on the evaluation and development of vaccines and is the Director General of the International Vaccine Institute (IVI), whose mission is to discover, develop and deliver safe, effective and affordable vaccines for Global Health. IVI's oral cholera vaccine is used around the world to prevent this deadly diarrheal disease. IVI is working on several different vaccines against COVID-19, including the clinical testing of Inovio's DNA vaccine at Seoul National University Hospital, Chung-Ang University Hospital and Seoul St. Mary's Hospital and Genexine's COVID-19 vaccine at Severance Hospital. Prior, he was the Principal Deputy, US Military HIV Research Program and led the Army's Phase III HIV vaccine trial that showed modest efficacy in the prevention of HIV-1 infection.

Dr. Kim is also an Adjunct Professor, Department of Medicine, Uniformed Services University and at the Graduate School of Public Health, Yonsei University. He has authored over 300 publications. He is a graduate of the University of Hawaii, with high honors in History and highest honors in Biology, and received his M.D. from Yale University School of Medicine.



#### Natalia Korotkova, PhD

#### **Primordial Prevention Working Member**

**Associate Professor** 

Department of Microbiology, Immunology & Molecular Genetics, University of Kentucky

Dr. Korotkova earned her M.S. in Chemistry from the Moscow State Open University, Russia, in 1992 and a Ph.D. in Biotechnology from the Institute of Physiology and Biochemistry of Microorganisms, Pushchino, Russia, in 1999. In 2005, Korotkova joined the Department of Microbiology at the University of Washington as a Research Assistant Professor. In 2020, Korotkova joined the Department of Microbiology, Immunology and Molecular Genetics at the University of Kentucky as an Assistant Professor. Her research focuses on elucidating the molecular strategies used by pathogenic streptococci to promote survival and proliferation in a host environment to develop effective approaches to treat infections. Her lab has pioneered multiple interdisciplinary approaches to understand the biogenesis, structure, and function of the Lancefield group A carbohydrate expressed by Streptococcus pyogenes.



#### Katelynn Milora, PhD

#### **Primordial Prevention NIH Working Group Staff**

American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow

Office of the Director, National Institutes of Health

Dr. Milora joined the National Institutes of Health (NIH) Office of Strategic Coordination (OSC) in August of 2020 as a Science & Technology Policy Fellow through the American Association for the Advancement of Science (AAAS). Prior to her fellowship, Dr. Milora studied immunological responses to neuron-specific Measles Virus infection in the brain and central nervous system as a postdoctoral fellow at Fox Chase Cancer Center from 2017 to 2019. She received her PhD in Microbiology and Immunology from Temple University School of Medicine in 2017, where she researched the effects of IL-36 cytokine signaling during homeostasis and inflammatory stimuli in epidermal models of autoimmunity and infectious disease. Prior to graduate school, she worked as a medical technologist in the Temple University Hospital Immunogenetics laboratory performing testing for solid organ human transplantation.



#### Makeda Williams, PhD, MPH

#### **Primordial Prevention NIH Working Group Staff**

Global Health Program Director

National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Williams is the Global Health Program Director for the National Heart, Lung, and Blood Institute (NHLBI). As the global health senior advisor, Dr. Williams provides scientific program leadership on NHLBI's global health research strategy addressing heart, lung, blood and sleep diseases in low- and middle-income countries (LMICs). She collaboratively engages in late-stage translation research, implementation science, and research training activities that build global research capacity. Dr. Williams previously served as Chief of Global Mental Health Effectiveness Research at the National Institute of Mental Health, and International Program Officer at the National Cancer Institute. She received her BA in Psychology from Emory University, MPH in Maternal and Child Health from The George Washington University, and Ph.D. in Health Education/Health Promotion from the University of Alabama at Birmingham. Dr. Williams completed the US Department of Health and Human Services' Emerging Leaders Program, and is a member of the Delta Omega Honor Society in Public Health.



#### Mark Engel, PhD, MPH

**Primary Prevention Working Group Lead** 

Associate Professor University of Cape Town

Dr. Engel's research includes all aspects of rheumatic heart disease (RHD), a neglected disease affecting predominantly poorer people in Africa. He is the PI of the AFROStrep Study, networking with colleagues on the continent employing a wide range of investigative approaches, from molecular to population-based research, in efforts to improve the understanding of this poverty-related heart disease in Africa. He is also a member of the African Union / PASCAR Taskforce, involved in an Africa-wide initiative to eradicate RHD from the continent. He regularly supervises postgraduate students and has published >100 articles in local and international journals with >5000 citations and contributed to four book chapters. He has received invitations to speak at national, continental, and international meetings.



#### Joselyn Rwebembera, MBChB, MMed

**Primary Prevention Working Group Lead** 

**Medical Officer** 

Uganda Heart Institute, Mulago National Referral Hospital

Dr. Rwebembera is an internal medicine physician and an adult cardiologist based at the Uganda Heart Institute, the country's tertiary referral center for cardiovascular diseases. She has dedicated her career to advancing care and research aimed at treating cardiovascular disease in resource-limited settings and understanding and improving the early detection, prevention, and treatment of heart disease in Uganda. Dr. Rwebembera has served as an active member of the cardiovascular research program at Uganda Heart Institute that continually generates new ideas, mentors junior researchers, and builds new collaborations. Rheumatic Heart Disease (RHD) has been a major focus of my research in the past few years. For the past five (5) years, she has led several multidisciplinary studies within the RHD Research Collaborative in Uganda (RRCU), including single-site and multi-site clinical trials in RHD. She is eager to carry this RHD research work forward at all fronts. No child born today should die from RHD!



#### Asha Bowen, BA, MBBS, DCH, FRACP, PhD

**Primary Prevention Working Group Member** 

Associate Professor

Head, Skin Health, Program Head of Vaccines and Infectious Diseases, Telethon Kids Institute

Dr. Bowen is a Associate Professor and clinician scientist working at Perth Children's Hospital as a pediatric infectious disease specialist and Head of Skin Health at the Telethon Kids Institute. Dr Bowen's clinical role informs her research as a National Health and Medical Research Council (NHMRC) funded Fellow. Dr. Bowen was awarded her PhD at the Menzies School of Health Research in 2015 for a large randomized controlled trial on the treatment of impetigo in remote Indigenous children. She is the lead investigator for the SToP trial to "see, treat and prevent" skin infections, a cluster randomized trial with a stepped wedge design recruiting from 2019-2022 throughout the Kimberley region in Western Australia. Dr Bowen also leads an observational study in the Kimberley to better understand the superficial Strep A infections, impetigo and pharyngitis, to improve primary prevention of rheumatic fever.

Dr. Bowen and her team launched the inaugural National Healthy Skin Guideline to guide clinicians in the recognition and evidence-based treatment of skin infection.



#### Chris Van Beneden, MD, MPH

#### **Primary Prevention Working Group Member**

**Epidemiologist** 

Division of Bacterial Diseases, National Center for Immunization and Respiratory Diseases Centers for Disease Control and Prevention

Dr. Beneden is a senior epidemiologist and consultant with the CDC Foundation in Atlanta, Georgia. Dr. Van Beneden recently retired from Centers for Disease Control and Prevention where she worked in the Respiratory Diseases Branch, National Center for Immunization and Respiratory Diseases (NCIRD) for over 20 years. Dr. Van Beneden directed CDC's epidemiologic research, public policy development and public health response efforts pertaining to group A streptococcal (GAS) infections. Recent GAS-related activities include: co-chair of the Strep A Vaccine Global Consortium (SAVAC) Burden of Disease Working Group; launch of a study investigating potential host genetic determinants of severe GAS infections; collaboration on a study of effects of theoretical GAS vaccine on antibiotic use in the U.S.; and use of whole genome sequencing of GAS isolates in outbreak detection. Policies developed include guidance for the public health response to clusters of postpartum and post-surgical GAS infections and for management of outbreaks of severe GAS infections among residents of long-term care facilities. Dr. Van Beneden is also an expert in public health surveillance systems for community-acquired bacterial infections (including those due to GAS), respiratory disease outbreak management (domestically and internationally), and the study of vaccines to prevent pneumococcal disease among low- and middleincome countries.



#### James B. Dale, PhD

#### **Primary Prevention Working Group Member**

Professor

The University of Tennessee Health Science Center

Dr. Dale is the Gene H. Stollerman Professor of Medicine and Chief of the Division of Infectious Diseases at the University of Tennessee Health Sciences Center in Memphis. He received his undergraduate degree from the University of Tennessee in Knoxville and his MD degree from the University of Tennessee, Memphis. He has achieved a national and international reputation for research on group A streptococcal infections. He has published over 150 original scientific articles and reviews in the area of infectious diseases. Dr. Dale has received continuous U.S. federal research funding for 38 years and has devoted his entire research career to the study of the pathogenesis of group A streptococcal infections and the design, development and clinical testing of streptococcal vaccines.



#### Katherine E. Fleming-Dutra, MD

#### **Primary Prevention Working Group Member**

Respiratory Diseases Branch, Division of Bacterial Diseases National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention

Dr. Fleming-Dutra is a pediatrician and pediatric emergency physician with the Respiratory Diseases Branch in the National Center for Immunization and Respiratory Diseases at the U.S. Centers for Disease Control and Prevention (CDC). During her career at CDC, she has worked in group A streptococcal epidemiology, bacterial respiratory diseases, antibiotic stewardship, and COVID-19 vaccine effectiveness. Dr. Fleming-Dutra is also a practicing pediatrician at Children's Healthcare of Atlanta.



#### Amy Sanyahumbi, MD

#### **Primary Prevention Working Group Member**

Pediatric Cardiologist

Baylor College of Medline/Texas Children's Hospital

Dr. Sanyahumbi is an Assistant Professor and Pediatric Cardiologist with Baylor College of Medicine / Texas Children's Hospital. She completed her pediatric training and cardiology fellowship at Children's National Medical Center and went on to complete a Fogarty Fellowship in Global Clinical Research in Malawi. She currently serves on AHA's committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease, and on the World Heart Federation's RHD echo screening guideline committee. She had authored multiple publications on RHD in Malawi and recently coauthored an AHA presidential advisory on BPG reactions in children with RHD. She lives in Lilongwe, Malawi where she runs the pediatric cardiology clinic at a large public hospital, trains local health workers, and leads NIH funded research projects focused on RHD.



#### Fernando P. Bruno, MD, MPH

#### **Primary Prevention NIH Working Group Staff**

American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow

Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Bruno is an AAAS STPF Fellow (American Association for the Advancement of Science, Science & Technology Policy Fellow). He serves as a fellow at the NIH's National Heart, Lung and Blood Institutes' Center for Translational Research and Implementation Science (CTRIS). CTRIS's primary mission is to plan, foster, and support research focused on implementing evidence-based interventions within clinical and public health settings in the United States and abroad.

Dr. Bruno has been involved in multiple research projects, including neurovascular diseases with stroke models on the regeneration of the central nervous system, and pathogenesis of cerebral malaria and other tropical disease. More recently, he has also been leading studies on best practices in medical education, focusing on assessing the core competencies of medical trainees and improvement of medical curricula.





**Primary Prevention NIH Working Group Staff** 

American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow

Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Masterson is an American Association for the Advancement of Science, Science and Technology Policy (AAAS S&TP) Fellow within the NIH's National Heart Lung Blood Institutes' Center for Translational Research and Implementation Science (CTRIS). CTRIS's primary mission is to plan, foster, and support research focused on implementing evidence-based interventions within clinical/public health settings in the United States and abroad. During her fellowship, she is performing programmatic work involving late-stage research and implementation strategies that reduce the burden of non-communicable diseases. She is the scientific lead and organizer for the "Eradication of Rheumatic Heart Disease (RHD): Assessing Research Challenges and Opportunities" Workshop to encourage scientific advancement and collaboration. Within CTRIS, she serves as a program official overseeing, managing, and administering a research portfolio consisting of Implementation Science in HIV/AIDS cooperative agreements and Health Systems research grants.

In the future, she would like to build off this work by participating in more disease prevention initiatives, combining her immunological background with implementation science principles.



#### Xinzhi Zhang, MD, PhD, FACE, FRSM

**Primary Prevention NIH Working Group Staff** 

Health Inequities and Global Health Branch Chief, Center for Translation Research and Implementation Science, National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Zhang is the Chief of Health Inequities and Global Health Branch at the Center for Translation Research and Implementation Science at the National Heart, Lung, and Blood Institute (NHLBI), part of the National Institutes of Health (NIH). Dr. Zhang has broad research interests that include clinical epidemiology, health services research, data science, health informatics, and their applications to promote health equity nationally and globally. He is a lieutenant commander in the U.S. Public Health Service Commissioned Corps, an elite group of public health leaders who respond to national health crises. Dr. Zhang has authored 4 papers for inclusion in CDC's Morbidity and Mortality Weekly Report, 3 book chapters, and 68 articles published in peer-reviewed journals, including the Journal of the American Medical Association, the American Journal of Public Health, and the American Journal of Preventive Medicine. He is one of the editors of the 2021 textbook on The Science of Health Disparities Research. Currently, he also serves as an associate editor of Health Equity. Throughout his career, Dr. Zhang has received many honors and awards from NIH, CDC, AHRQ, American Public Health Association, and Commissioned Corps of the U.S. Public Health Service, including 2 Presidential Unit Citations and 2 Outstanding Service Medals. Dr. Zhang received his M.D. from Peking Union Medical College in 1998 and his Ph.D. in health services administration from the University of Alabama at Birmingham in 2003.





#### Ganesan Karthikeyan, M.D., D.M. M.S.

Secondary Prevention Working Group Lead

Professor of Cardiology

Cardiothoracic Sciences Centre, All India Institute of Medical Sciences

Dr. Karthikeyan is a Professor of Cardiology at the All India Institute of Medical Sciences, New Delhi, India, and an International Fellow of the Population Health Research Institute at McMaster University, Canada. He was previously the Editor-in-Chief of the BMJ journal Heart Asia (2015-2020) and is now an Associate Editor of BMJ Heart and Deputy Editor of BMJ Open Heart. He is also currently a Co-Editor of the European Heart Journal. His research mainly focuses on cardiovascular diseases affecting low and middle-income countries, including valvular heart disease, particularly rheumatic heart disease (RHD), mechanical valve thrombosis, anticoagulation, and indigenous drug-eluting stents. He is one of the key leads of the ongoing INVICTUS international randomized trial in rheumatic atrial fibrillation. He holds several research grants to support his work on RHD from both national and international funding agencies. He is a member of the Health Technology Assessment (HTA) Board of the Government of India and the expert panels designing the Standard Treatment Workflows for disease conditions, including RHD. He is a member of the RHD Expert Group of the Global Burden of Disease study of the International Institute of Health Metrics and Evaluation (IHME) at the University of Washington in Seattle. He is a member of the Governing Board of Rheumatic Heart Disease, Evidence, Advocacy, Communication, Hope (Reach).



#### David A. Watkins, M.D., M.P.H.

**Secondary Prevention Working Group Lead** 

Assistant Professor Division of General Internal Medicine Department of Global Health, University of Washington

Dr. Watkins is an assistant professor at the University of Washington (UW). He currently leads the UW site for the Disease Control Priorities Project and is affiliated with the Implementation Science program in the Department of Global Health. He studies health system reform and policy implementation challenges in low-income countries, with a particular emphasis on universal health coverage and the growing burden of non-communicable diseases like rheumatic heart disease.

He also teaches on global health and research methods at the UW and practices as an internal medicine specialist at Harborview Medical Center. Dr. Watkins received a bachelor of science from Rhodes College and a doctor of medicine from Duke University before moving to Seattle, where he completed a residency in internal medicine at the UW, an MPH through the Institute for Health Metrics and Evaluation, and a research fellowship in health economics.



#### Madeleine W. Cunningham, Ph.D.

#### **Secondary Prevention Working Group Member**

George Lynn Cross Research Professor

Presbyterian Health Foundation Presidential Professor Microbiology and Immunology Director, Immunology Training Program University of Oklahoma Health Sciences Center

Dr. Cunningham is an expert in group A streptococcal pathogenesis and immunity and has been supported by the National Heart Lung and Blood Institute(NHLBI) for the past 35 years to investigate the pathogenesis of rheumatic heart disease as well as other inflammatory heart diseases including myocarditis and dilated cardiomyopathy. Her work has been presented both nationally and internationally for the past 35 years. Her laboratory has a strong focus on human translational research in inflammatory diseases of the heart and brain including rheumatic fever and rheumatic heart disease. Her work has been supported by the American Heart Association and the National Institute of Mental Health as well as the NHLBI. Dr. Cunningham has served many years on study sections and review committees at the National Institutes of Health, American Heart Association (AHA), Veterans Administration, and served on the National Research Committee of the AHA. She has been a consultant for the National Academy of Sciences. She was a representative of the United States for the US-Indo Vaccine Action Program to promote research on group A streptococcal vaccines. She was elected an AAAS and ASM fellow. Dr Cunningham founded Moleculera Labs and serves as Chief Scientific Officer. She has published over 150 peer reviewed scientific articles and reviews.



#### Babu Muhamed, PhD

#### **Secondary Prevention Working Group Member**

Postdoctoral Fellow

The University of Tennessee Health Science Center

Dr. Muhamed graduated his BSc in Microbiology (University of Zululand, 2009), BSc (Honours) in Medical Microbiology (University of Pretoria, 2010), MSc and Doctoral degree in Medicine (University of Cape Town, 2018). He joined the Mayosi Research Group in the Department of Medicine during his Master's degree, reporting on the molecular epidemiology of group A streptococcus among children with a sore throat in Cape Town, South Africa. Babu's doctoral studies on the genetics of Rheumatic Heart Disease confirmed genetic susceptibility in Africans. Babu's primary research focus is susceptibility to cardiovascular diseases, especially rheumatic heart disease and hypertension. Babu is currently an American Heart Association Postdoctoral Research Fellow at the Children's National Hospital in Washington, DC. He is also enrolled into a Master of Public Health program specializing in Global Health and Disease Control at The George Washington University.



#### Anna P. Ralph, PhD

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Professor

Royal Darwin Hospital, Menzies School of Health Research

Dr. Ralph heads the Global and Tropical Health division at Menzies School of Health Research in northern Australia, one of the country's leading institutions in Indigenous and tropical health research. She supervises a number of research students in the fields of tuberculosis, rheumatic fever and Indigenous health.

She is also the Clinical Advisor for Rheumatic Heart Disease Australia, the national body supporting the prevention, diagnosis and management of acute rheumatic fever and rheumatic heart disease in Australia. Professor Ralph is a practicing medical specialist in Adult General Medicine and Infectious Diseases at Royal Darwin Hospital.



#### Nona Sotoodehnia, MD, MPH

#### **Secondary Prevention Working Group Member**

Associate Professor, Medicine

Cardiovascular Health Research Unit, University of Washington

Dr. Sotoodehnia is a cardiologist and cardiovascular epidemiologist at the University of Washington where she co-directs the Cardiovascular Health Research Unit. Her research focuses on genomics and multi-omic analysis of cardiovascular disease, health disparities work, and research on cardiovascular diseases in resource limited settings. With close collaboration of colleagues in Nepal, she examines questions related to the epidemiology and treatment of rheumatic heart disease in Nepal.



#### Rosemary Wyber, MBChB, MPH, FRACGP

**Secondary Prevention Working Group Member** 

Senior Technical Adviser

Strep A and Rheumatic Heart Disease Team, Telethon Kids Institute Perth Children's Hospital

Dr. Wyber is a General Practitioner who completed her Masters of Public Health at the Harvard School of Public Health (2011) and her General Practice training in Aboriginal Community Controlled Clinics in the Northern Territory of Australia (2015 – 2017). Rosemary is the Head of Strategy for END RHD, the lead author of the RHD Endgame Strategy, and a Senior Adjunct Research Fellow at the University of Western Australia.

Rosemary's primary research interest is rheumatic heart disease in Aboriginal and Torres Strait Islander communities and resource-limited settings worldwide. She is completing her Ph.D. at The George Institute for Global Health, focusing on policy decisions related to RHD in Australia.



#### John Haller, PhD

#### Secondary Prevention NIH Working Group Staff

Program Officer

Advanced Technologies & Surgery Branch, Division of Cardiovascular Sciences National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Haller is a Program Officer (PO) in the Advanced Technologies and Surgery Branch of NHLBI/NIH where he manages cardiac imaging grants and serves as the PO for the Cardiothoracic Surgery Trials Network (CTSN). In the past, John has served as faculty (Washington Univ, U. Iowa and George Mason Univ.), worked in industry (Toshiba and Canon Medical Research) and served as a NIH PO and Acting Division Director at the National Institute of Biomedical Imaging and Bioengineering (NIBIB). Also, while at NIBIB/NIH, John worked as Liaison for International Activities where he developed a program for low-cost medical devices in collaboration with the government of India, served as Science Officer for the Point-of-Care Technologies Research Network (POCTRN), and initiated a program for low-cost imaging that supported the development of the first commercially available, low-cost, hand-held ultrasound device.



#### Keith Mintzer, PhD

#### **Secondary Prevention NIH Working Group Staff**

Program Officer, Center for Translation Research and Implementation Science National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Mintzer has been on a detail for the past six months, in the NHLBI Center for Translation Research and Implementation Science. For the 18 years before his current detail, he worked in the NHLBI Division of Extramural Research Activities, mainly as a scientific review officer. For the past decade, he has been working on the NHLBI training portfolio both as the scientific review officer for a standing study section that reviews career development awards and as an active member of the NHLBI training committee. Keith's formal scientific training is a developmental biology with an emphasis on genetics; however, his experience at NHLBI has given him an appreciation of NHLBI science's breadth.



#### Marcelo Cardarelli, MD, MPH

#### **Tertiary Prevention Working Group Lead**

Pediatric Cardiac Surgeon Inova Women and Children Hospital

Dr. Cardarelli was born in Buenos Aires, Argentina, and graduated from the University of Buenos Aires. After his initial training in cardiac surgery in Argentina, Dr. Cardarelli completed a series of residencies and fellowships at Texas Heart Institute, Children Hospital of Philadelphia, and Boston Children Hospital. Dr. Cardarelli was Director of Pediatric Cardiac Surgery at the University of Maryland Hospital for Children for nearly 18 years before joining Inova Children Hospital in Fairfax, Virginia. In 2006, Dr. Cardarelli obtained his Masters degree in Public Health from the Bloomberg School of Public Health at Johns Hopkins University. Since 2012 Dr. Cardarelli has worked as a volunteer and staff surgeon in multiple surgical missions to low and middle-income countries with Dr. Novick and colleagues until 2014 when he co-founded the newly established William Novick Global Cardiac Alliance.



# Liesl Zühlke, MBChB DCH, FCPaeds Cert Card, MPH, FESC, FACC, MSc (HEOMCS), PhD

#### **Tertiary Prevention Working Group Lead**

Professor University of Cape Town

Dr. Zühlke is a pediatric cardiologist in Cape Town, South Africa and directs the Children's Heart Disease Research Unit focused on Children's Heart Diseases of relevance in Africa. She is also currently the Acting Deputy Dean of Research in the Faculty of Health Sciences. Her research projects span Rheumatic and Congenital Heart Disease, HIV-associated cardiac disease in adolescents, Grown-up Congenital Heart Disease and cardiac disease in women of childbearing age. She was the 2018 recipient of the MRC/Dfid African Research Leader Award and is designated one of the top three international scholars in RHD research.

Internationally she serves as the President of Reach (Rheumatic Heart Disease, Evidence, Advocacy, Communication and Hope), works closely with WHO EMRO and AFRO on RHD, is a board member of the World Heart Federation and the Non-Communicable Diseases Alliance-, is on the International scientific advisory board of Children's Heart Link and Global ARCH and is an executive member of SAVAC (Strep A Vaccine Global Consortium). She is the chair of both the RHD and CHD Task-forces for PASCAR-Pan African Society of Cardiology.



#### Annette Ansong MD, FACC

#### **Tertiary Prevention Working Group Member**

Pediatric Cardiologist

Medical director, Cardiology Outpatient Services, Children National Medical Center

Dr. Ansong is a pediatric cardiologist and the medical director of outpatient cardiology at Children's National Hospital as of June 2021. Dr. Ansong is the proud daughter of immigrants from Ghana and was born and raised in the Washington, D.C., area. She is a graduate of the University of Virginia, followed by medical school at Howard University College of Medicine. She completed her Pediatrics residency and Pediatric Cardiology fellowship at Duke University Medical Center, while also obtaining a Master of Health Science in Clinical Research. It was during this time that she became involved with the NIH Pediatric Heart Network. Between 2009 and April 2021, Dr. Ansong was in private practice in Virginia. Her work there led to recognition as a Northern Virginia and Washingtonian Top Doctor.

She is involved regionally and nationally on issues of diversity, equity and inclusion. She also has an interest in global health and has performed mission work in Ghana and Haiti. Dr. Ansong currently co-chairs the Women and Children Committee of the Association of Black Cardiologists, Inc., and serves on the Adult Congenital & Pediatric Cardiology Leadership Council of the American College of Cardiology. Her career interests and passion have allowed for multiple publications, case reports and presentations.



#### Gene Bukhman, MD, PhD

#### **Tertiary Prevention Working Group Member**

Director, Program in global Noncommunicable Disease and Social Change Harvard University

Dr. Bukhman is a cardiologist and medical anthropologist who directs the Center for Integration Science at Brigham and Women's Hospital and the Program on Global Noncommunicable Disease (NCDs) and Social Change at Harvard. He is an Associate Professor of Medicine and an Associate Professor of Global Health and Social Medicine. He is also the Senior Health and Policy Advisor on NCDs at Partners In Health (PIH) where he directs the NCD Synergies project. Over the past 15 years, Dr. Bukhman has argued that for those living in extreme poverty, NCDs are best understood as part of the "long tail" of global health equity that demands a new "science of integration." He is the author of more than 90 articles and book chapters that apply a range of methodologies to identify solutions to the problem of "NCDI Poverty." Dr. Bukhman was the lead-author and co-chair of the 1996-2020 Lancet Commission on Reframing NCDs and Injuries for the Poorest Billion, and is currently co-chair of the 22-country NCDI Poverty Network launched in December of 2020 to support implementation of the Lancet Commission's recommendations.



#### Jeffrey Cannon Ph.D.

#### **Tertiary Prevention Working Group Member**

Postdoctoral Research Fellow Global Health and Population, Harvard T.H Chan School of Public Health

Dr. Cannon is a Health Economist at the Telethon Kids Institute in Perth, Western Australia, and is a visiting Postdoctoral Research Fellow at the Harvard T.H. Chan School of Public Health. Jeff's research interests lie in the interactions between health, economic, and social conditions and outcomes, particularly among disadvantaged populations, and in developing and applying analytic models to facilitate policy decisions.

Jeff is a member of the Strep A [group A Streptococcus] Vaccine Global Consortium (SAVAC) Burden of Disease and Full Value of Vaccines Assessment Working Groups. He has contributed to World Health Organization consultation groups on Strep A vaccine research and development. He received a BSc/BBus dual degree in Mathematics and Finance and an Honours degree in Mathematics from Edith Cowan University. He subsequently earned a PhD in Health Economics from the University of Western Australia in 2019.



#### Jacques Kpodonu, MD FACC

#### **Tertiary Prevention Working Group Member**

Faculty of Surgery Division of Cardiac Surgery, Department of Surgery Beth Israel Deaconess Medical Center, Harvard Medical School

Dr. Kpodonu is a US-boarded Cardiac Surgeon and an NIH-funded Scientist at Beth Israel Deaconess Medical Center and the Surgical faculty at Harvard Medical School.

Dr. Kpodonu's clinical interests include:

- Structural heart disease (rheumatic heart disease).
- Sickle cell cardiomyopathy.
- Cardiac surgery capacity in low- and middle-income countries.

Dr. Kpodonu's research interests are focused on novel heart valve designs, particularly for rheumatic heart disease, leveraging artificial intelligence to develop cardiac risk models and digital health technologies to improve cardiac outcomes in minority populations.

Dr. Kpodonu is an author and editor of many textbooks, including the upcoming textbook "Global Cardiac Surgery Capacity Development in Low- and Middle-Income Countries." Dr. Kpodonu currently holds leadership positions with the Society of Thoracic Surgery, CTSNET Global and previously a leadership position with American College of Cardiology on Diversity & Inclusion Taskforce.



#### Salome Maswine MBCHB, FCOG, MMED, PhD

#### **Tertiary Prevention Working Group Member**

Professor and Head of Global Surgery University of Cape Town , Department of Cardiothoracic Surgery

Dr. Maswime is an associate Professor and Head of the Global Surgery Division at the University of Cape Town; an Obstetrician and Gynaecologist. She is a World Economic Forum Young Scientist; Next Einstein Fellow; vice-President of the Women in Global Health; and President of the South African Clinician Scientists Society. After specialising she completed a Masters in Medicine and PHD in Obstetrics and Gynaecology. She did a postdoctoral research fellowship at the Massachusetts General Hospital and Harvard Medical School. She has a diploma in Project Management (Varsity College) and a Certificate in Leading Organisations and Change (MIT). She is a section editor of the Plos Global Public Health Journal. Salome Maswime is a member of the Academy of Science South Africa. She has received numerous awards for her research contribution to maternal health, including the trailblazer and young achiever by the President of South Africa in 2017.



#### Emmy Okello, MD, PHD, FACC

#### **Tertiary Prevention Working Group Member**

Chief of Cardiology

Uganda Heart Institute, Mulago National Referral Hospital

Dr. Okello is an Associate Professor in the Department of Medicine, Makerere University and Chief of the Division of Adult Cardiovascular Medicine, Uganda Heart Institute. Dr. Okello heads the rheumatic heart disease research collaborative at the UHI(RRCU), a consortium of national and international researchers focused on reducing the burden of rheumatic heart disease in Uganda and around the world. With over 70 publications in peer-reviewed journals, Dr. Okello is actively involved in research that focuses on early detection of rheumatic heart disease.



#### Bo Reményi MBBS, FRACP, PhD

#### **Tertiary Prevention Working Group Member**

Associate Professor Royal Darwin Hospital Menzies School of Health Research

Dr. Remenyi is a pediatric cardiologist, Ph.D. scholar, and a former scientific advisor for the World Heart Federation on rheumatic fever and rheumatic heart disease. She is the 2018 Australian of the Year for the Northern Territory. Dr. Remenyi received her medical degree from the University of Queensland and currently works as a pediatric cardiologist at the Royal Darwin Hospital and services many remote Indigenous communities. She also undertakes humanitarian work with Rotary in resource-poor countries in our region. As a clinician and as a researcher, Dr. Remenyi's interests lie in prevention and early detection of rheumatic heart disease.



#### Dominique Vervoort, MD, MPH, CPH, MBA, PhDc

#### **Tertiary Prevention Working Group Member**

PhD Candidate/Global Cardiac Surgery Advocate Johns Hopkins Bloomberg School of Public Health

Dr. Vervoort is a PhD in Health Services Research student at the Institute of Health Policy, Management and Evaluation at the University of Toronto, focusing on Health Technology Assessment in cardiac surgery. He completed his MD at the KU Leuven and MPH/MBA at the Johns Hopkins University. Previously, Dominique completed the Paul Farmer Global Surgery Fellowship at the Program in Global Surgery and Social Change at Harvard Medical School.

Dominique established the Global Cardiac Surgery Initiative to advocate for the six billion people worldwide without access to cardiac surgical care. Dominique is Co-Founder and Trustee of InciSioN - International Student Surgical Network, the world's largest global surgery trainee organization worldwide. He serves as an Advisor for the Global Surgery Foundation, Advisor for the Johns Hopkins Global Surgery Initiative, Board Member for the Global Alliance for Rheumatic and Congenital Hearts, and co-Founder of the Gender Equity Initiative in Global Surgery.



#### Chris Yilgwan MD, PhD

#### **Tertiary Prevention Working Group Member**

Associate Professor of Pediatrics University of Jos

Dr. Yilgwan is an Associate Professor of Pediatrics and Cardiovascular health in the College of Health Sciences of the University of Jos. He is also an Honorary Consultant Pediatric Cardiologist to the Jos University Teaching Hospital, Jos, Nigeria.

He had his medical education at the University of Jos and his Pediatric Residency training at the Jos University Teaching Hospital, Jos, Nigeria. He obtained a Doctor of Philosophy in Public Health from Walden University, Minneapolis, in Minnesota, USA.

His research focuses on both observational and experimental research methods to gain insight into social determinants of health, especially related to cardiovascular diseases such as rheumatic heart disease and hypertension, including pregnancy-induced hypertension. He is particularly interested in understanding shared patterns and potential causal factors in the development of cardiovascular outcomes, especially in low-resourced settings.



#### Craig Sable, MD

#### **Tertiary Prevention Working Group Member**

Associate Division Chief, Cardiology Director, Echocardiography Children's National Hospital

Dr. Sable is Associate Chief of Cardiology at Children's National Health System and Professor of Pediatrics at George Washington University School of Medicine. He is recognized as an international leader in pediatric echocardiography, telemedicine and global cardiovascular disease. He has authored over 150 peer-reviewed articles (over 60 in rheumatic heart disease), given over 100 invited talks, and coauthored ten book chapters. He has mentored over 100 trainees, serving as Pediatric Cardiology Fellowship Director from 1998 – 2011. Dr. Sable has been working in Uganda since 2003 visiting over 30 times to advance clinical care and support research in RHD. Dr. Sable serves as one of four Center Directors in the AHA Strategically Focused Children's Research Network; his center focuses on RHD. He has key leadership roles in the American Heart Association American Board of and World Heart Federation Dr. Sable received AHA/CVDY's Meritorious Achievement award in 2018 and delivered the 2019 T. Duckett Jones Memorial Lecture on Rheumatic Heart Disease.



#### Geetha Bansal

#### **Tertiary Prevention NIH Working Group Staff**

Program Director, Division of International Training and Research Fogarty International Center, National Institutes of Health

Dr. Bansal has a Ph.D. in Immunology/Biochemistry from the University of Maryland and her post- doctoral training at the US National Institutes of Health in Bethesda, Maryland. She continued her interest in biomedical research on vaccines and monoclonal antibodies for a number of infectious diseases at MedImmune, Inc. and is a licensed patent agent of the US Patent and Trademark Office. She spent eight and a half years as a Scientific Review Officer, and as a Program Officer in the Vaccine Research Program, Division of AIDS, at NIAID and gained valuable experience in the NIH extramural grants process and overseeing research portfolio in basic vaccine discovery for HIV. She joined as Associate Dean for Research and faculty at the School of Public Health and Tropical Medicine at Tulane University in New Orleans where she worked on malaria vaccines and initiated interdisciplinary programs and support for NIH grant writing. Currently she oversees the HIV/AIDS research and research training portfolio at the Fogarty International Center, NIH.



#### Kathleen Fenton, MD, MS

#### **Tertiary Prevention NIH Working Group Staff**

Deputy Branch Chief, Advanced Technologies and Surgery Branch, Division of Cardiovascular Sciences

National Heart, Lung, and Blood Institute, National Institutes of Health

Dr. Fenton is a congenital heart surgeon and bioethicist, and is currently the Chief of the Advanced Technologies and Surgery Branch at NHLBI.

After completing her training in congenital heart surgery, Dr. Fenton had two academic positions as a surgeon in the U.S., where she trained students and residents and did research in fetal heart surgery. In 2006, she moved to Managua to help establish a pediatric heart surgery program. Her intention was to return home after two or three years of humanitarian work, but the work was immensely rewarding. She quickly realized that she was not only giving life back to children who otherwise would have no access to surgery, but that by mentoring the local surgeon and medical team she was allowing them to develop their careers in a way that would not have otherwise been possible. She spent a total 12 years doing full time global surgery, working in Ukraine, Libya, and Nigeria in addition to several Latin American countries.

Meanwhile, when she was appointed to serve on the Standards and Ethics Committee for the Society of Thoracic Surgeons in 2010, it did not occur to her that it would be anything other than a short-term act of service to her colleagues. However, Dr. Fenton soon realized just how great a need there is for surgeons to be actively involved in bioethics! This motivated her to obtain formal training in bioethics, and she now applies this both at NHLBI and as an Affiliate Scholar in NIH's Department of Bioethics.

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# **ROSTER: WORKSHOP PANELIST**

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# **FUNDING OPPORTUNITIES**



#### **NIH Grant Opportunities**

#### Dissemination and Implementation Research in Health (R01 Clinical Trail Optional)

The purpose of this Funding Opportunity Announcement (FOA) is to support innovative approaches to identifying, understanding, and developing strategies for overcoming barriers to the adoption, adaptation, integration, scale-up and sustainability of evidence-based interventions, tools, policies, and guidelines. Conversely, there is a benefit in understanding circumstances that create a need to stop or reduce ("de-implement") the use of interventions that are ineffective, unproven, low-value, or harmful. In addition, studies to advance dissemination and implementation research methods and measures are encouraged.

All applications must be within the scope of the mission of one of the Institutes/Centers listed in funding announcement.

For more information, click Learn More below:

**Learn More** 

#### Advancing Group A Streptococcus Vaccine Discovery (R01 Clinical Trial Not Allowed)

The purpose of this Funding Opportunity Announcement (FOA) is to support discovery and design of novel Group A Streptococcus (GAS) vaccine candidates and their advancement into preclinical evaluation for broad protection against GAS infections.

For more information, click Learn More below:

**Learn More** 

# **FUNDING OPPORTUNITIES**





#### NHLBI Joins International Research Funders to Improve Global Heart Health

New Collaboration Aims to Speed, Coordinate Multinational Clinical Trial Research, Implementation, and Funding

On this World Heart Day, NHLBI is pleased to announce it has joined forces with several global cardiovascular research funders to advance the prevention, diagnosis, and treatment of the world's leading killers, including heart attack and stroke.

The Global Cardiovascular Research Funders Forum (GCRFF), which was established earlier this year, aims to accelerate international research efforts in heart, stroke and circulatory diseases.

"We are excited to join this global partnership," said David Goff, M.D., Ph.D., director of NHLBI's Division of Cardiovascular Diseases. "Together, we can identify research gaps, coordinate and fund multinational clinical trials, and share data to improve the lives of people at risk for or living with these diseases."

Initially, the GCRFF will share information on research funding priorities, strategic initiatives, and clinical trials. Through its Multinational Clinical Trials Initiative, members will help researchers in different countries collaborate on plans and coordinate funding applications for ambitious global clinical trials that might not be feasible in a single country or with support from a single funder.

The GCRFF is now accepting expressions of interest which will be reviewed three times a year. The next review closing date is **January 28, 2022**. Learn more about the GCRFF and how to submit a proposal for consideration: <a href="https://www.nhlbi.nih.gov/funding/global-cardiovascular-research">https://www.nhlbi.nih.gov/funding/global-cardiovascular-research</a>

**Learn More** 

## **FUNDING OPPORTUNITIES**



#### **Acute Rheumatic Fever Biomarker Project**

The Leducq Foundation announces a call for applications in October 2021.

#### The Challenge

Acute rheumatic fever initiates a slow but progressive process of heart valve damage termed rheumatic heart disease. While the incidence of acute rheumatic fever declined sharply in high income countries throughout the second half of the 20th century, rheumatic heart disease remains a significant cause of cardiovascular morbidity and mortality in in low- and middle-income countries. There is currently no sensitive and specific diagnostic test for acute rheumatic fever. Instead, a constellation of clinical and laboratory findings is used to make the diagnosis. Initially proposed in 1944, the Jones criteria have been used since to guide the diagnosis of acute rheumatic fever. These criteria have been revised in 1992 and again in 2015, but they remain imperfect.

Comparison of the number of individuals living with rheumatic heart disease to the incidence of acute rheumatic fever suggests that acute rheumatic fever is frequently undiagnosed. Better accuracy in the diagnosis of acute rheumatic fever would lead to greater and more appropriate antibiotic therapy for prevention of recurrent rheumatic fever, which is a major determinant of prognosis. Beyond the direct patient benefit, greater diagnostic certainty could reduce inappropriate antibiotic use. Additionally, a definitive diagnostic test for ARF would facilitate surveillance, accurate assessments of disease burden, better informed policy-making, and group A streptococcal vaccine development efforts.

One key barrier to the development of a diagnostic test for acute rheumatic fever is our incomplete understanding of the disease pathogenesis. While group A strep infection is well substantiated as the initiating event, the contributions of bacterial factors and host responses, which ultimately determine whether a given patient develops acute rheumatic fever, are still poorly understood. The role of pathogen and host genetic determinants remains an area of ongoing investigation, as does the immune response, both humoral and cellular, in disease development. The quest for a sensitive and specific diagnostic test for acute rheumatic fever will therefore almost certainly begin with new insights into the molecular pathogenesis of the disease.

#### The Goal

The challenge for the applicants is to identify a biomarker(s) for acute rheumatic fever that can serve as a basis for a test or panel of tests to accurately distinguish patients with acute rheumatic fever from individuals who do not have acute rheumatic fever.

The total award is \$8,000,000 over five years for the Acute Rheumatic Fever Biomarker Project.

Leducq Foundation applications are submitted via an online application service hosted by Altum ProposalCENTRAL. <u>Click here to go directly to the application website</u>.

**Learn More**