BIOGRAPHIES

ORGANIZERS:

Lisa Bebell, MD is an Instructor at Harvard Medical School, Assistant in Medicine at Massachusetts General Hospital in the Infectious Diseases Unit and is a research faculty member of the Medical Practice Evaluation Center. She is an adult Critical Care Medicine and Infectious Diseases specialist, and devotes the majority of her time to research on pregnancy-related infections. Dr. Bebell’s current NIH-funded research is focused on the role of the placenta in transplacental antibody transfer and early life health outcomes, particularly among HIV-exposed children. In this work, she partners with Drs. Joseph Ngonzi, Elias Kumbakumba, and Julian Adong at the Mbarara University of Science and Technology in Uganda as well as Dr. Galit Alter at the Ragon Institute. Dr. Bebell also works closely with Dr. Adeline Boatin, Associate in Global Health. Recently, Dr. Bebell has begun investigating the impact of COVID-19 on pregnancy and neonatal immunity. Dr. Bebell Co-Directs the Harvard University Center for AIDS Research (HU CFAR) Placental Scientific Working Group with Dr. Rebecca Zash. Dr. Bebell can be followed on Twitter at @lisa_xpond.

Presentation title: Transplacental antibody transfer among women living with HIV

Rebecca Zash, MD is a member of the Division of Infectious Diseases at BIDMC and a Research Associate at the Harvard T.H. Chan School of Public Health. She graduated from the University of North Carolina School of Medicine and then completed residency and fellowship training at BIDMC. Prior to medical school, Dr. Zash helped to run an NGO to prevent mother-to-child transmission of HIV (PMTCT) in South Africa. She has pursued interest and research in HIV in pregnancy. During her fellowship, she lived in Botswana and ran several research studies evaluating the safety of antiretroviral therapy in pregnancy and infant outcomes. Her current research interests include understanding the mechanisms of adverse birth outcomes among HIV-infected women in Botswana and implementing drug-safety surveillance in pregnancy in resource-limited settings.

SPEAKERS (in order of appearance):

Salome Maswime, PhD, MBCHB is an associate Professor and the Head of the Global Surgery Division at the University of Cape Town; an Obstetrician and Gynaecologist; a World Economic Forum Young Scientist; Next Einstein Fellow; and President of the South African Clinician Scientists Society. She is a former research fellow at the Massachusetts General Hospital and Harvard Medical School, and former lecturer at the Wits University. She is a trustee of the South African Health Systems Trust, and associate editor of the South African Journal of Obstetrics and Gynaecology; and a member of UNITARs’ Global Surgery Foundation leadership team.

Presentation title: Stillbirths among women living with HIV

Colleen Wright, MD PhD FIAC FRCPath MMed FCPPath is an anatomic pathologist at Lancet Laboratories in South Africa, previously at the National Health Laboratory Services in Port Elizabeth and Cape Town and holds an Honorary appointment at the University of the Witwatersrand and Stellenbosch University Colleen has worked to define the epidemiology of HIV-related perinatal pathology for the last 20 years, in addition to her work in medical education and public health.

Presentation title: HIV and ARV treatment and placental pathology in South Africa. Retrospective, current and future studies
Clive Gray, PhD is Professor of Immunology & Chair and Head, Division of Immunology, Institute of Infectious Disease and Molecular Medicine and Department of Pathology, University of Cape Town and Director, Laboratory of Tissue Immunology, National Health Laboratory Services and Groote Schuur Hospital. Dr. Gray is also Secretary-General, Federation of African Immunology Societies and currently has six active NIH research grants in addition to his multiple other funded projects. Dr. Gray’s research interests revolve around investigating immune regulation and dysregulation and biological risk for HIV infection in two scenarios: a) HIV exposed uninfected pre-term and term newborn children (born to HIV infected mothers) and b) epithelial immune regulation in foreskin tissue of adolescent and young males who elect to undergo medical male circumcision (MMC). He has been involved with HIV immunology research for over 20 years and has published widely in this area.

Presentation title: The Impact of Maternal HIV Infection on the Placenta and Cord blood T cell landscape

Lena Serghides, PhD is a basic and translational researcher focused on investigating HIV drug toxicity in pregnancy and the long-term effects of in utero exposure to HIV drug on infant health. Dr Serghides aims to optimize maternal and infant health in the face of HIV infection, discover the best and safest HIV drugs to use in pregnancy, and understand the mechanisms that underlie adverse pregnancy and offspring health outcomes, so that clinically useful interventions and diagnostic biomarkers can be developed. Her current projects focus on understanding how HIV medications alter the in utero environment, including early placentation, hormone homeostasis and lipidomic profiles, and whether and how the altered in utero environment influences brain development in HIV-exposed uninfected children. She is also collaborating with experts from University College London and Harvard Medical School to investigate the fetal toxicity of dolutegravir (an HIV medication linked to neural tube defects).

Presentation title: Protease inhibitors and the placenta – from HIV to COVID-19

Nitin Arora, MD, MPH is an Assistant Professor in Neonatology. He earned his medical degree from Rajiv Gandhi University of Health Sciences Dr. B.R. Ambedkar Medical College in Bangalore, India. Dr. Arora completed his pediatric residency at West Virginia University Hospital in Morgantown, West Virginia and neonatal/perinatal fellowship at the University of Pittsburgh Medical Center/Children’s Hospital in Pittsburgh, Pennsylvania. In addition, he received a Master of Public Health from the University of Alabama at Birmingham in 2008.

Presentation title: SARS-CoV2 at the maternal-fetal interface and impact on pregnancy outcomes

Drucilla Roberts, MD is an expert in perinatal pathology. In her clinical and research work, Dr Roberts strives to better understand the biology and clinical significance of pathologic findings. She works on perinatal projects focusing on the placenta both in the US and internationally and was invited to participate in the NICHD’s “white paper” meetings for the Human Placental Project in 2014 and 2015. Dr Roberts is active in global health practicing and teaching anatomic pathology and laboratory services in sub-Saharan Africa. Her recent projects include placental malaria, stillbirths, and autopsy pathology in resource-poor settings. Dr Roberts has also taught and directed multiple international and multidisciplinary courses on the contribution of anatomic pathology to the health of women and children and multidisciplinary cancer management, as well as participating in writing perinatal pathology guidelines. She aims to raise awareness of how
pathologists can improve care for all patients and find ways to capacitate pathology in all settings, especially in sub-Saharan Africa.

Presentation title link: [Placental Primer](#)

Andrea Edlow, MD, MSc is a member of the Obstetrics and Gynecology Faculty at Harvard Medical School and a Maternal-Fetal Medicine specialist at Massachusetts General Hospital. Dr Edlow’s laboratory focuses on the effects of maternal obesity and maternal immune activation on fetal brain development and offspring behavior, and how these effects are modified by fetal sex. Her lab was one of the first to use amniotic fluid supernatant and umbilical cord blood to investigate real-time fetal brain development in obese human pregnancy. Gene expression profiling of these two biofluids identified abnormal gene expression signatures in fetuses of obese women, highlighting dysregulated brain development and increased inflammation. More recently, Dr Edlow has investigated the effects of maternal SARS-CoV-2 on the placenta and cord blood immune profile, and how the placental and fetal effects of SARS-CoV-2 are modified by fetal sex.

Presentation title (Co-presented with Drucilla Roberts): [Mechanisms of fetoplacental protection and vulnerability in the setting of maternal SARS-CoV-2 infection](#)

David Weinberg earned his Ph.D. from Johns Hopkins University and spent almost 20 years at the pharmaceutical company Merck leading early stage drug discovery projects for the treatment of obesity and developing expertise in translational research. In 2009, David moved to the National Institutes of Health as a scientific review officer where he managed the review of applications focused on female reproduction and contraception. In 2014, he became the project lead for the NICHD Human Placenta Project (HPP), the goals of which are to develop a deep understanding of human placenta development and function; accelerate the capability for safe, real-time assessment of these processes across pregnancy; utilize these methods to distinguish normal from abnormal pregnancy trajectories; and ultimately facilitate development of interventions that may lead to better pregnancy outcomes. David continues to lead the HPP, but has also applied his drug development skills in the NICHD Contraception Research Branch to assist in efforts to bring forward novel products for male and female contraception before recently moving full time into the Pregnancy and Perinatology Branch.

Presentation title: [The Human Placenta Project, and NICHD support of placental research](#)