

Online Conference Program: Day 1

Saturday, February 9, 2019

Time (EST)	Topic	Speaker
7:00 – 7:15 am	Opening Ceremony – Introduction and Welcome from BSI	Dr. Eleanor Fish , Univ. of Toronto, Canada
Scientific Session 1: Global Health, Infectious Diseases		
7:15–7:50 am	Keynote – Malaria and salmonella: it's a neutrophil problem	Dr. Eleanor Riley , Roslin Institute, Scotland
7:55–8:10 am	Characterization of novel bacteriophages with therapeutic potential against <i>Staph. aureus</i>	Joseph Michael O. Odour , U. Helsinki and U. Nairobi, Finland/Kenya
8:15–8:30 am	Assessment of Meningitis causing bacteria at the Kumasi Central Prison	Emmanuel Amewu , KNUST, Ghana
8:35–8:50 am	Prevalence of intestinal helminth parasitic infections and associated risk factors among students in Tepi Town, South West Ethiopia	Esmael Belachew , Addis Ababa University, Ethiopia
8:55–9:10 am	Identification of ARV resistance mutations outside of the drug-target gene	Phuong Pham , NIH, USA
9:10–9:25 am	Global governance of drug quality: examining the disbanding of the WHO International Medical Products Anti-Counterfeiting Taskforce (IMPACT)	Dr. Aria Ilyad Ahmad , World Health Organization, Switzerland
9:25–9:40 am	HotDoc: HIV and stigma	Atiyya tul Munim, Ian Omoyo, Amara Daniels Moi University, Kenya
9:40–9:45 am	Break	
Scientific Session 2: Global Health, Chronic and Infectious Diseases		
9:45–10:20 am	Keynote – Prospects and challenges of HIV functional cure following treatment of acute infection	Dr. Thumbi Ndung'u , Univ. of KwaZulu-Natal, South Africa
10:25–10:40 am	Interspecies interactions induce antimicrobial activity	Dr. Gleb Pishchany , Harvard Medical School, USA
10:45–11:00 am	Reactivation of CMV in patients with sepsis: association of immunological mediators, lab parameters and clinical manifestations	Taylon Felipe Silva , State University of Londrina, Brazil
11:05–11:20 am	Immunophenotypic assessment of natural killer cells in chronic rhinosinusitis with and without nasal polyps	Patrycja Popowicz , Poznan Univ. of Medical Sciences, Poland
11:25–11:40 am	Contribution of TCF7L2- (C/T), KLF14- (C/T) and PPAR- γ2- (C/G) gene polymorphisms in the predisposition to type 2 diabetes in a Cameroonian population	Dr. Guewo Fokeng Magellan , University of Yaounde, Cameroon
11:45–12:00 pm	Interleukin-33 promotes type 1 cytokine responses in human natural killer cells	Dr. David Ohayon , Cincinnati Children's Hospital, USA
12:05–12:20 pm	Re-entrant waves demonstrated in human induced stem cell derived cardiomyocytes (hiPSC-CMs)	Adrienne Caldwell , McGill University, Canada
12:20–12:45 pm	HotDoc: BSI Nairobi at Kabete Rehab Centre	Esther Anyango Univ. of Nairobi, Kenya
	HotDoc: Life of a dentistry student from PUMS	Jakub Szczupak , PUMS, Poland

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Online Conference Program: Day 2

Sunday, February 10, 2019

Time (EST)	Topic	Speaker
Scientific Session 3: Bioinformatics/ Biotechnology		
7:00–7:35 am	Keynote – The gut microbiome regulates immunity	Dr. Dana Philpott , University of Toronto, Canada
7:40–7:55 am	Resistance to protease inhibitor in Nigerian HIV-1 isolates	Elijah K. Oladipo Adeleke University, Nigeria
8:00–8:15 am	Screening <i>in vitro</i> targets related to diabetes in herbal extracts from Peru: Identification of active compounds in <i>hypericum laricifolium</i> Juss. by offline HPLC	Yanymee N. Guillen Quispe , Hallym University, South Korea
8:20–8:35 am	Computer-aided skin cancer detection: a novel image processing technique	Aimoldir Aldabergen Suleyman Demirel University, Kazakhstan
8:40–8:55 am	Progenitor T cells for thymic regeneration and as a platform for genetically- engineered T cells	Ashton Trotman-Grant Sunnybrook Research Inst., Canada
8:55–9:10 am	Comprehensive assessment of large scale patient derived xenografts data	Dr. Arvind Mer University Health Network, Canada
9:15–9:30 am	Toward computer-made artificial antibiotics	Dr. Cesar de la Fuente MIT, USA
9:35–9:50 am	HotDoc: Reproductive health and education for street adolescents and women in Eldoret, Kenya	Pavanraj Chana, Atiyya tul Munim Moi University, Kenya
9:50–10:00 am	Break	
Scientific Session 4: Cancer		
10:00–10:35 am	Keynote – Generating immunity to recalcitrant cancers	Dr. Stephanie Dougan Harvard Medical School and DFCI, USA
10:40–10:55 am	Loss of IL-10/STAT3 signaling aggravates CD8+ T-cell exhaustion and impedes control of chronic lymphocytic leukemia	Dr. Bola Hanna Harvard Medical School USA/Germany
11:00–11:15 am	Human cytolytic fusion proteins targeting CSPG4 for the treatment of triple-negative breast cancer	Neelakshi Mungra University of Cape Town, South Africa
11:20 –11:35 am	The impact of coxibs on Wnt/ β -catenin pathway, cell cycle and apoptosis in GBM cells	Nastassia Kruhlenia Poznan Univ. of Medical Sciences, Poland
11:40–11:55 am	Restoration of microRNA-34a expression decreases cell viability and promotes apoptosis in T-cell acute lymphoblastic leukemia cell line	Shiva Najjary University of Maragheh, Iran
12:00–12:15 pm	Synergistic checkpoint blockade and cytokine therapy increases $\gamma\delta$ T-cell mediated cytotoxicity in murine hepatocellular carcinoma	Rutvij Khanolkar University of Toronto, Canada
12:20–12:45 pm	HotDoc: Period poverty at Kakuma Refugee Camp	Bahati E. Hategekimana
12:45 pm	Closing Ceremony	

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Keynote Speakers



Dr. Stephanie Dougan, Assistant Professor, Cancer Immunology and Virology, Dana Farber Cancer Institute, Harvard Medical School, USA. Stephanie Dougan received her PhD in Immunology from Harvard University where she studied lipid antigen presentation by CD1d and NKT cell development. She then undertook a postdoctoral fellowship Whitehead Institute, where she employed somatic cell nuclear transfer and embryo manipulations for the purpose of generating transnuclear and CRISPR genome-modified mice. Dr. Dougan joined the faculty at Harvard Medical School and Dana-Farber Cancer Institute in 2014, where her lab uses unique mouse models to study the immune response to tumors. She is particularly interested in tumors that do not induce a CD8 T cell response at baseline, and has been using pancreatic cancer as a model to develop new immunotherapies for non-T cell infiltrated tumors. Dr. Dougan is a Pew-Stewart Scholar in Cancer Research, a Bill and Melinda Gates Global Health Innovation Scholar, a Melanoma Research Alliance Young Investigator, and received a Pathway to Leadership Award from the Pancreatic Cancer Action Network and AACR.



Dr. Thumbi Ndung'u is the Deputy Director (Science) and a Max Planck Research Group Leader at the Africa Health Research Institute (AHRI) in Durban, South Africa. He is Professor and Victor Daitz Chair in HIV/TB Research at the Nelson R. Mandela School of Medicine, University of KwaZulu-Natal. He holds the South African Research Chair in Systems Biology of HIV/AIDS and is an Adjunct Professor of Immunology and Infectious Diseases at the Harvard T.H. Chan School of Public Health. He is the Program Director of the Sub-Saharan African Network for TB/HIV Research Excellence (SANTHE). Dr. Ndung'u completed his BSc at the University of Nairobi, Kenya, and obtained a PhD in Biological Sciences in Public Health from Harvard University, United States where he also completed his postdoctoral work in virology. He is a member of the Academy of Science of South Africa and a fellow of the African Academy of Sciences. Dr. Ndung'u is on the advisory board of the Global Health and Vaccination Research Programme (GLOBVAC), The Research Council of Norway, and is a member of the External Advisory Board of the HIV Vaccine Trials Network (HVTN). His research interests are host-pathogen interactions, particularly immune mechanisms of HIV and TB control. He is leading a multidisciplinary team of researchers working in the fields of HIV and TB immunopathogenesis, vaccine development and immune-based HIV functional cure strategies. Dr. Ndung'u also has a special interest in capacity building for biomedical research in Africa.

Keynote Speakers



Dana Philpott is a Professor in the Department of Immunology, Co-Director of the Host-Microbiome Research Network at the University of Toronto and holds a Canada Research Chair in Microbe-Host Interactions in Intestinal Homeostasis. Dr. Philpott undertook her post-doctoral training and then held a Group leader position at the Institute Pasteur in Paris, France. She was recruited to the University of Toronto in 2006. Her research employs animal models of inflammatory bowel disease and considers how innate immunity and the microbiome shape immune homeostasis within the intestine. Dr. Philpott was a Howard Hughes International Scholar (2006-2011) and received the Canadian Society for Immunology Investigator Award (2015) and the Canadian Association of Gastroenterology Research Excellence Award (2017).



Eleanor M. Riley is a Professor of Immunology and Infectious Diseases, Director of the Roslin Institute & Dean for Research, Royal School of Veterinary Studies, University of Edinburgh, UK. After graduating from Bristol University with degrees in Cellular Pathology and Veterinary Science, Dr. Riley interned in veterinary pathology at Cornell University and then obtained her PhD in Immunology and Parasitology from the University of Liverpool, UK. After 5 years at the Medical Research Council (MRC) Laboratories in The Gambia, Dr. Riley moved to the University of Edinburgh as a Wellcome Trust Senior Research Fellow, prior to her appointment as Chair of Immunology at the London School of Hygiene and Tropical Medicine in 1998. In September 2017, Dr. Riley moved to the University of Edinburgh to take up the role of Director of the Roslin Institute in the College of Medicine. Dr. Riley's research focuses on mechanisms of immunity to malaria, how the immune response can contribute to disease, how immunity affects the distribution and transmission of the parasite and how malaria infection affects resistance to other infections. In addition, Dr. Riley has a long-standing interest in the biology of natural killer (NK) cells and their role in resistance to infection. Dr. Riley is a fellow of the Academy of Medical Sciences and has previously served as Strategy Panel Chair at BBSRC and as Deputy Chair of the MRC Infections and Immunity Board. She has recently been appointed to the Governing Council of the MRC.