CONFERENCE ORGANIZING COMMITTEE

George P. Patrinos (Patras, Greece; Co-Chair) Ambroise Wonkam (Cape Town, South Africa; Co-Chair) Vajira Dissanayake (Colombo, Sri Lanka) Geoffrey Ginsburg (Durham, NC, USA) Bruce Korf (Tuscallosa, AL, USA) Catalina Lopez-Correa (British Columbia, Canada) Teri Manolio (Baltimore, MD, USA) Raj Ramesar (Cape Town, South Africa) Mandy Salomo (Cape Town, South Africa) Robyn Ward (Queensland, Australia) Grant Wood (Salt Lake City, UT, USA)

YOUNG INVESTIGATORS FORUM PLANNING COMMITTEE

Teri Manolio (Baltimore, MD, USA; Chair) Victoria Nembaware (Cape Town, South Africa) Cedrik Ngongang (Yaounde, Cameroon) Styliani Papadaki (Patras, Greece) George P. Patrinos (Patras, Greece) Ambroise Wonkam (Cape Town, South Africa)

KEYNOTE SPEAKERS

Vanessa Hayes (Sydney, Australia) Dame Sue Hill (London, UK) Farmad Imam (San Franscisco, CA, USA)

SPEAKERS AND MODERATORS

Marc Abramowicz (Geneva, Switzerland) Pilar Carvallo (Santiago, Chile) Collet Dandara (Cape Town, South Africa) Vajira Dissanayake (Colombo, Sri Lanka) Kelly East (Huntsville, AL, USA) Ghada El-Kamah (Cairo, Egypt) Karimah Es Sabar (Vancouver, Canada) **Geoffrey Ginsburg** (Durham, NC, USA) Rich Haspel (Boston, MA, USA) Christian Happi Tientcha (Lagos, Nigeria) **Reinhard Hiller** (Cape Town, South Africa) Sula Hood (Indianapolis, USA) Federico Innocenti (Chapel Hill, NC, USA) Puthen Veettil Jithesh (Doha, Qatar) Bruce Korf (Tuscallosa, AL, USA) Judit Kumuthini (Cape Town, South Africa) Guida Landoure (Bamako, Mali) Catalina Lopez-Correa (British Columbia, Canada) **Glaudina Loots** (Cape Town, South Africa) Surakameth Mahasirimongkol (Bangkok, Thailand)

Julie Makani (Dar Es Saalam, Tanzania) Christina Mitropoulou (London, UK) Leon Mutesa (Rwanda) Nicola Mulder (Cape Town, South Africa) Mohamed Nagy (Cairo, Egypt) Gilles Ndayiasaba (Rwanda) Victoria Nembaware (Cape Town, South Africa) George P. Patrinos (Patras, Greece) Elissa Prichep (San Francisco, CA, USA) Ratna Puri (New Delhi, India) Alan Rabinowitz (Vancouver, Canada) Martin Reese (Oakland, CA, USA) Jurgen Reichardt (Quito, Ecuador) Gabriela Repetto (Santiago, Chile) Jean-Luc Sanne (Brussels, Belgium) Fasil Tekola (Bethesda, MD, USA) Nicki Tiffin (Cape Town, South Africa) Scott Williams (Chicago, IL, USA) Ambroise Wonkam (Cape Town, South Africa) Grant Wood (Salt Lake City, UT, USA) Yonglan Zheng (Chicago, IL, USA)



Global Genomic Medicine Collaborative

4rd Global Genomic Medicine Collaborative Conference Genomic Medicine implementation in low-resource settings





Global Genomic Medicine Collaborative

Genomic Medicine implementation in low-resource settings

Scientific Program

28-30 November 2018 President hotel Cape Town South Africa

Scientific Program

	DAY 1: NOVEMB		20.00	WELCOME COCKTAIL DECEDTION (Drasidant Listal Surjemente Dadi area)	
	08:00 - 13:00	08:00 - 13:00 Registration		20:00 WELCOME COCKTAIL RECEPTION (President Hotel - Swimming Pool area) DAY 2: NOVEMBER 29, 2018	
	Young Investiga	tors Forum (President Ballroom)	08:00 - 08:05	Keynote introduction by Geoff Ginsburg (Location: President Ballroom)	
A	08:00 - 08:05	Welcoming Remarks - Chair, YIF Planning Committee Teri Manolio (Baltimore, MD, USA)	08:05 - 08:35	Keynote Lecture #2: A multiomics approach to identify predictive biomarkers and new biology for preterm birth and related newborn mortality contributors using cohorts from Africa and South Asia	
	08:05 - 10:55	Young Investigator Presentations		Farhad Imam, Senior Program Officer, Bill & Melinda Gates Foundation	
	10:55 - 11:10	Break		SESSION III: GENOTYPING COST-EFFECTIVENESS ACROSS THE WORLD Moderator: Nicola Mulder, University of Cape Town, South Africa	
	11:10 - 11:40	<mark>Career Development Session</mark> <u>Moderator</u> : Teri Manolio (Baltimore, MD, USA) <u>Panel members</u> : Victoria Nembaware (Cape Town, South Africa), Gabriela Repetto (Santiago, Chile),		Precision Medicine in Thailand Surakameth Mahasirimongkol, Ministry of Public Health, Thailand	
~	11:40 - 12:00	Surakameth Mahasirimongkol (Bangkok, Thailand), Cedric Ngongang (Cape Town, South Africa) Young Investigator Flash Talks		Design of the H3Africa array for African populations Nicola Mulder, H3BioNet, University of Cape Town, South Africa	
	12:00 - 13:30	Poster session and Lunch (Location: President Restaurant)		Comparing cost-effectiveness of South Africa to the rest of the world Reinhard Hiller, Center for Proteomic & Genomic Research, South Africa	
	4th G2MC Conference - Main event			Determining the value of pharmacogenomics evidence	
	13:30 - 13:45	Welcoming Remarks Glaudina Loots, Director; Department of Science and Technology (DST), Ministry of Science and Technology, South Africa	09:45 - 10:15	Christina Mitropoulou, The Golden Helix Foundation, London, UK Panel discussion	
	13:45 - 14:00	Welcoming Remarks G2MC Co-Chairs		<u>Moderator</u> : Nicola Mulder <u>Panelists</u> : Surakameth Mahisirimongkol, Reichardt Hiller, Christina Mitropoulou	
		Geoff Ginsburg; Director, Duke Center for Applied Genomics and Precision Medicine; Professor of Medicine, Duke University, USA	10:15 - 10:45	BREAK	
		George P. Patrinos; Associate Professor of Pharmacogenomics and Pharmaceutical Biotechnology and Head, Laboratory of Pharmacogenomics and Individualized Therapy, University of Patras, Department of Pharmacy, Patras Greece	10:45 - 12:05	SESSION IV: GENOMIC MEDICINE AND INFECTIOUS DISEASES Moderator: Raj Ramesar, University of Cape Town, South Africa	
	14:00 - 14:05	Keynote introduction by George P. Patrinos		Genomics and the Control of Ebola Epidemic Christian Happi Tientcha, Redeemer's University, Nigeria	
	14:05 - 14:35	Keynote Lecture #1: Genome diversity in Africa: Lessons and application to genomic medicine Vanessa Hayes, Professor; Garvan Institute of Medical Research, University of Sydney, Australia		Genomics and Podoconiosis: Public Health translation to improve child health in a low-income setting Fasil Tekola, National Institutes of Health (NIH), USA	
	14:35 - 16:25	SESSION I: GENOMIC MEDICINE IMPLEMENTATION IN AFRICA <u>Moderator</u> : Ambroise Wonkam, University of Cape Town, South Africa		Malaria and Sickle Cell Disease Julie Makani, Muhimbili University, Dar Es Saalam, Tanzania	
		Genomic Medicine in Africa: Promise Problems, Prospects Ambroise Wonkam, University of Cape Town, South Africa		Co-evolution between Mycobacterium and humans influences tuberculosis severity Scott Williams, Case Western Reserve, USA	
		Neurogenomics in Mali Guida Landoure, University of Bamako, Mali		Host genomics and upper respiratory diseases Geoffrey Ginsburg, Duke University, USA	
		Advancement of medical genetics and Genomic Medicine in Rwanda Leon Mutesa, College of Medicine & Health Sciences, University of Rwanda, Rwanda H3Africa and its potential role in African Genomic Medicine		Microbiome of the placenta in pre-eclampsia Vajira Dissanayake, University of Colombo, Sri Lanka	
		Nicola Mulder, H3BioNet, University of Cape Town, South Africa Development of Genomic Medicine in Egypt	12:05 - 12:35	Panel discussion <u>Moderator</u> : Raj Ramesar	
		Ghada El-Kamah, National Research Centre, Cairo, Egypt		Panelists: Christian Happi Tiehtcha, Fasil Tekola, Julie Makani, Scott Williams, Geoff Ginsbirg, Vajira Dissanayake	
		Cancer Genomics Initiatives in Africa Yonglan Zheng, University of Chicago, Chicago, II, USA	12:35 - 14:00	LUNCH BREAK (Location: President Restaurant) Lunch meeting for Evidence Writing Group (Location: Boardroom) <u>Co-chairs</u> : Marc Abramowicz (Geneva, Switzerland) and Fahd Al-Mulla (Safat, Kuwait)	
	16:25 - 17:05	<mark>Panel discussion</mark> <u>Moderator</u> : Ambroise Wonkam <u>Panelists</u> : Guida Landoure, Leon Mutesa, Nicola Mulder, Ghada El-Khamah, Yonglan Zheng		SESSION V: PHARMACOGENOMICS <u>Moderator</u> : George P. Patrinos, University of Patras, Patras, Greece	
	17:05 - 17:30	COFFEE BREAK		Pharmacogenomics in Africa: Considerations for population health in transition Collet Dandara, University of Cape Town, South Africa	
	17:30 - 18:40	SESSION II: GENOMIC MEDICINE IN THE DEVELOPING WORLD Moderator: Catalina Lopez-Correa, Genome British Columbia, Canada		Ubiquitous pharmacogenomics George P. Patrinos, University of Patras, School of Health Sciences, Patras, Greece	
		From emerging economies to first nations: Genomic Medicine for ALL Catalina Lopez-Correa, Genome British Columbia, Quebec, Canada		The Alliance for clinical trials in oncology: A cooperative group to achieve precision oncology through genomics Federico Innocenti, University of North Carolina at Chapel Hill, USA	
		Path towards an Innovation Economy Karimah Es Sabar, Quark Venture, Vancouver, Canada		Pharmacogenomics data standardisation and governance Judit Kumuthini, Centre for Proteomics and Genomic Research, South Africa	
		Genomic Medicine in Sri Lanka Vajira H. W. Dissanayake, University of Colombo, Sri Lanka		Population Pharmacogenomics in the Middle East: A perspective from Qatar Puthen Veettil Jithesh, Sidra Medical and Research Center, Qatar	
		Genetics of breast cancer in Chilean women Pilar Carvallo, Pontifical Catholic University of Chile, Chile		Challenges of Clinical Pharmacogenomics Implementation and how to overcome Mohamed Nagy, Children's Cancer hospital, Cairo, Egypt	
		Rare Diseases in Latin America: Challenges and opportunities Gabriela Repetto, Universidad del Desarrollo, Chile		A European Union perspective on Personalised Medicine Jean-Luc Sanne, European Commission, Brussels, Belgium	
		Reflections of a Biomedical Scientist on 4 Continents in Interdisciplinary Biomedical Research Jurgen Reichardt, Yachay Tech University, San Miguel de Urcuqui, Ecuador	15:30 - 16:30	Panel discussion <u>Moderator</u> : George P. Patrinos	
	18:40 - 19:10	Panel discussion <u>Moderator</u> : Catalina Lopez-Correa		Panelists: Collet Dandara, Federico Innocenti, Judit Kumuthini, Put-on Veettil Jithesh, Mohamed Nagy, Jean-Luc Sanne	
		Panelists: Juergen Reichardt, Vajira Dissanayake, Gabriela Repetto, Pilar Carvallo, Karimah Es Sabar, Qais Al-Duwairi	16:00 - 16:30	Coffee break	

	16:30 - 17:45	Breakout Group Sessions i. Education Working Group [President 1] (Moderators: Vajira Dissanayake, Bruce Korf) ii. Policy Working Group [Boardroom] (Moderators: Dame Sue Hill, Andrea Belcher) iii. Pharmacogenomics Working Group: Clinical Implementation [President 2] (Moderator: George P. Patrinos) iv. Pharmacogenomics Working Group: Evidence [President 3] (Moderator: Federico Innocenti)
	10.00	v. Pharmacogenomics Working Group: Policy [BA lounge] (Moderators: Puthen Veettil Jithesh, Mohamed Nagy)
	19:00	Depart for Dinner (meet at hotel lobby)
(19:30 DAY 3: NOVEMBE	DINNER (Gold Restaurant, 15 Bennett Street, Green Point, 8005)
	07:00 - 08:15	G2MC Steering Committee meeting (by invitation only; Location: President ballroom)
	08:25 - 08:30	Keynote introduction by Alan Shuldiner
	08:30 - 09:00	Mainstreat introduction of genomics across a large public health system Dame Sue Hill, Professor, National Health Service, London, UK
	09:00 - 09:15	International Cohorts Summit Geoff Ginsburg; Director, Duke Center for Applied Genomics and Precision Medicine; Professor of Medicine, Biomedical Engineering and Pathology, Duke University, USA
	09:15 - 10:35	SESSION VI: PUBLIC ENGAGEMENT IN GENOMIC MEDICINE Moderator: Grant Wood, Intermountain Precision Genomics, Intermountain Health Care, USA
		Linking genomic data with administrative health data in a low resource setting Nicki Tiffin, University of Cape Town, Cape Town, South Africa
		Family Health History Awareness: Tools for enhancing genetic literacy Sula Hood, Indiana University-Purdue University Indianapolis, USA
		Artificial-intelligence driven insights for genomic data interpretation in clinical care Martin Reese, Fabric Genomics, USA
		Inferring patient outcomes from the combination of genomic, phenomic and clinical data: A project proposal Marc Abramowitz, Geneva University Hospitals (HUG), Geneva, Switzerland
		Beyond the Heart Center: 21st century Medicine int he real world Alan Rabinowitz, PHEMI Systems, University of British Columbia, Canada
		Updates on HL7 FHIR Genomics and related activities Grant Wood, Intermountain Health Care, USA
	10:35 - 11:05	Audience discussion of the Health IT project ideas presented in this session (Moderated by Grand Wood)
	11:05 - 12:15	LUNCH
	12:15 - 13:25	SESSION VII: PROFESSIONAL ENGAGEMENT AND WORKFORCE DEVELOPMENT Moderators: Vajira Dissanayake, University of Colombo, Sri Lanka & Bruce Korf, University of Alabama, USA
		Genomic Medicine education of medical providers in India Ratna Puri, Sir Ganga Ram Hospital, New Delhi, India
		Competence and Community-Based Genomic Medicine Training in Africa Victoria Nembaware, University of Cape Town, South Africa
		Engaging healthcare providers in the practice of genomic medicine Kelly East, HudsonAlpha Institute of Biotechnology, USA
		The Genomic Medicine workforce: The global landscape Bruce Korf, University of Alabama, USA and Vajira Dissanayake, University of Colombo, Sri Lanka
		Progress in the Inter-Society Coordinating Committee (ISCC) on Practitioner Education in Genomics Rich Haspel, ISCC, Beth Israel Deaconess, USA
	13:25 - 13:55	Panel discussion <u>Moderators</u> : Vajira Dissanayake & Bruce Korf, <u>Panelists</u> : Ratna Puri, Victoria Nembaware, Kelly East, Rich Haspel
	13:55 - 14:55	Breakout Group Sessions Report <u>Moderator</u> : Alan Shuldiner (Tarrytown, NY, USA) i. Education Working Group (Vajira Dissanayake, Bruce Korf) ii. Policy Working Group (Dame Sue Hill, Andrea Belcher) iii. Pharmacogenomics Working Group: Clinical Implementation (George P. Patrinos) iv. Pharmacogenomics Working Group: Evidence (Federico Innocenti) v. Pharmacogenomics Working Group: Policy (Puthen Veettil Jithesh, Mohamed Nagy) vi. Evidence Writing Group (Marc Abramowicz, Fahd Al-Mulla)
	14:55 - 15:20	Leapfrogging with Precision Medicine Elissa Prichep, World Economic Forum Gilles Ndayisaba, Rwanda Biomedical Centre, Rwanda
	15:20 - 15:35	Young Investigator Poster Awards Announcement
	15:35 - 16:00	Closing remarks and Next Steps (from Co-Chairs of the meeting) George P. Patrinos and Ambroise Wonkam
	16:00	MEETING ADJOURNS
	17:00 - 19:00	G2MC Executive Committee meeting (by invitation only)