

National and international connections: Visits and visitors

Background

Australian experts continually grapple with geographic distance from (mostly) northern hemisphere peers. To overcome this, Melbourne Genomics focused particular effort on international and national engagement during the 2016 to 2019 program.

A strategy was developed to:

- Give profile to the unique strengths of Melbourne Genomics' members and the outcomes of their collaboration
- Ensure Victoria benefits from the best of global knowledge
- Assert and enhance Victoria's profile as a leader in bringing genomics into healthcare
- Establish a strong foundation for future opportunities in genomics

A key element of this strategy was a program to attract international expert visitors to spend time in Melbourne, and to send Melbourne Genomics experts to spend time with peers outside Australia.

Project description

The objective: to share knowledge and experience and bring the best of the world's expertise to benefit Victoria, by facilitating face-to-face, person-to-person immersive contact between international peers.

The visits and visitors program had three distinct categories:

- **Experts-in-Residence:** Clinical Flagships and Advisory Groups nominated an expert of their choice to host in Melbourne for one to two weeks. Experts were embedded within the Flagship or Group to facilitate mutual sharing of knowledge, skills and experience.
- **Immersion Visits:** Melbourne Genomics leaders invited highly-placed opinion leaders in genomics for a one-week visit to directly experience the Alliance and its work.
- **Alliance Ambassadors:** early-to-mid career professionals from the Melbourne Genomics member organisations selected to travel nationally or internationally to achieve a specific linking or learning goal, with new knowledge and experience to be shared on their return.

Activities

Between January 2017 and December 2019, Melbourne Genomics hosted 12 Experts-in-Residence and three Immersion Visitors, and supported five Alliance Ambassadors.

Notable visitors included:

- Professor Yehuda Carmeli, Founder and Head of the Division of Epidemiology at Tel Aviv Medical Center and of the National Institute for Infection Control and Antibiotic Resistance (2018).
- Danielle Ciofani, Director of Data Strategy and Alliances at the Broad Institute of Harvard University and MIT (2018)

- Professor Anthony Brookes, Professor of Genetics at the University of Leicester, who led the Global Alliance for Genomics and Health's standard 'ADA-M' – a computer-readable model for consent and data use conditions (2019)
- Professor Dame Sue Hill DBE, Chief Scientific Officer and Senior Officer Responsible for Genomics at NHS England, a globally recognised leader in genomics (2019)
- Jillian Hastings Ward, Chair of the Participant Panel for the 100,000 Genomes Project (2019)

Outcomes

Professor Carmeli's visit resulted in his team establishing links with Victorian genomics experts. This has subsequently led to Israeli superbug isolates being sent to Melbourne for whole genome sequencing as part of an outbreak investigation.

Professor Hill and Jillian Hastings Ward's visit resulted in significant media exposure and raised interest from local and global experts in Melbourne Genomics' program of work.

Strong links were built with individual experts, their organisations and their networks.

Victoria has benefited from global knowledge, and there has been national and international recognition for the Melbourne Genomics program and lessons learned as a result of these visits.

Melbourne Genomics' collaborative model has become recognised as the international gold standard for bringing genomics into healthcare. This has resulted in international recognition for Victoria, as well as worldwide profile and linkages for Victoria's experts.

Lessons learnt

- There was significant value for the Clinical Flagships, Advisory Groups and Melbourne Genomics program team in the opportunity to discuss issues/challenges with experts face-to-face – often resulting in validation that the problems encountered were shared (despite differences of geography, systems, etc).
- The visits and visitors program made enduring connections with experts in similar fields. There was significant value in being able to collaborate with experts in niche fields.

Full list of visits and visitors

Visitor type	Name	Institute	Host group
Immersion visitor	Prof Anthony Brookes	Professor of Genetics, University of Leicester, United Kingdom	Alliance management
Immersion visitor	Prof Dame Sue Hill	Chief Scientific Officer and Senior Officer Responsible Officer for Genomics, NHS England, United Kingdom	Alliance management
Immersion visitor	Prof Yehuda Carmeli	Founder and Head of Division of Epidemiology at Tel Aviv Medical Center and the National Institute for Infection Control and Antibiotic Resistance, Israel	Controlling Superbugs Clinical Flagship
Expert-in-Residence	Dr Austin Kulasekararaj	Consultant Haematologist, King's College Hospital, United Kingdom	Bone Marrow Failure Clinical Flagship
Experts-in-Residence	Broad Institute visitors: Danielle Ciofani* Alex Baumann**	*Director of Data Strategy and Alliances **Senior Software Developer Broad Institute, USA	GenoVic Project Control Group
Expert-in-Residence	Dr Cynthia Powell	Professor of Paediatrics and Genetics, University of North Carolina, USA	Congenital Deafness Clinical Flagship
Expert-in-Residence	Dr Daniel Gale	St Peter's Associate Professor of Nephrology, University College London, United Kingdom	Kidney Genetics Clinical Flagship
Expert-in-Residence	Ellen Graham	Deputy Director, Genomics Unit, NHS England, United Kingdom	Alliance management
Expert-in-Residence	Prof Glenda Halliday	NHMRC Senior Principal Research Fellow Central Clinical School, University of Sydney	Complex Neurological and Neurodegenerative Diseases Clinical Flagship
Expert-in-Residence	Dr James Holman	Research Environment Programme Lead at Genomics England, United Kingdom	GenoVic Project Control Group
Expert-in-Residence	Dr Jennelle Hodge	Associate Professor of Clinical Medical & Molecular Genetics, Indiana	Lymphoma Clinical Flagship

Visitor type	Name	Institute	Host group
		University	
Expert-in-Residence	Ivo Fokkema	Leiden Open Variation Database developer, Leiden University Medical Center, Netherlands	Diagnostic Advisory Group
Expert-in-Residence	Jillian Hastings Ward	Chair of the Participant Panel, 100,000 Genomes Project, United Kingdom	Community Advisory Group
Expert-in-Residence	Dr Kilannin Krysiak	Clinical Fellow, Department of Pathology and Immunology, Washington University School of Medicine, USA	Diagnostic Advisory Group
Alliance Ambassador	Dr Anna Tanska	Laboratory Scientist/Manager Molecular Pathology, Peter MacCallum Cancer Centre	American Society of Human Genetics Annual Meeting
Alliance Ambassador	Dr Claire Gorrie	Lead Bioinformatician, Controlling Superbugs Clinical Flagship	Dr Estee Torok (jointly appointed across the University of Cambridge, Addenbrookes Hospital, and the Sanger Institute at the Wellcome Trust Genome Campus)
Alliance Ambassador	Dr Dhamidhu Eratne	Key Clinician, Complex Neurological and Neurodegenerative Diseases Clinical Flagship	American Society of Human Genetics Annual Meeting
Alliance Ambassador	Dr Lilian Downie	Key Clinician, Congenital Deafness Clinical Flagship	Broad Institute, Partners Healthcare Laboratory Molecular Medicine, Seqaboo team at Harvard Medical School
Alliance Ambassador	Lyndon Gallacher	Genetic Counsellor, Victorian Clinical Genetics Services/Murdoch Children's Research Institute	Daniel MacArthur Laboratory, Broad Institute of MIT and Harvard, Cambridge, Massachusetts, USA