

8.00am Registration open

PLENARY 1 Preparing for an AI future

CHAIR Dr David Hansen

8.50am Introduction and welcome
Dr David Hansen Chair, Health Data Analytics Conference 2019 @dhansen35

Bennelong Point Room

9.00am Data driven approaches to customer service: What we need to consider
Dr Ian Oppermann CEO and Chief Data Scientist, NSW Department of Customer Service @ian_oppermann9.30am Global perspectives for AI and data analytics in healthcare
Prashant Natarajan Principal, Analytics & Cognitive, Deloitte Consulting & Co-Faculty, Stanford University @BigDataCXO10.00am Ensuring e-safety is on our health data agenda
A/Prof Farah Magrabi Associate Professor, Centre for Health Informatics, Macquarie University @farahmagrabi

10.30am Morning tea and exhibition

CONCURRENT 1 AI and machine learning

CONCURRENT 2 Data analytics: Practical applications

Bennelong Point Room

CHAIR Anshu Bhaskar

Farm Cove Room

CHAIR Jon Teo

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11.00am Improving disease prediction using machine learning
Prof Anthony Maeder Flinders Digital Health Research Centre, Flinders University @anthonymaederUsing routinely collected electronic health record data to explore primary health care provision for anxiety disorders
Melissa Chapman NPS MedicineWise @NPSMedicineWise11.15am Supervised machine learning algorithms for disease prediction using administrative claim data
Dr Shahadat Uddin The University of Sydney @UddinShahadatEnabling drug-drug interaction alerts in an electronic medication management system: Impact on prescriber alert burden
Anmol Sandhu St Vincent's Hospital, Sydney @SVHSydney11.30am Artificial intelligence in healthcare - managing precision, practice and propriety: The challenge of adoption
Peter Williams Oracle @OracleHarnessing the potential of electronic medical records with data analytics in back pain
Dr Gustavo Machado National Health and Medical Research Council @gustavomachado11.45am A machine learning approach to predict self-harm among young people attending youth mental health services
Dr Frank Iorfino The University of Sydney @frankiorfinoMaking good health data uses real: Practical processes and tools for accountability by design
Prof Peter Leonard UNSW Business School and Data Synergies @PGLeonard12.00pm Pilot experience with use of artificial intelligence in ICU
Gurkiran Kaur United Overseas BankUsing health data analytics to inform clinical decision making in mental health care
Tracey Davenport The University of Sydney @Sydney_Uni

12.15pm Lunch and exhibition

CONCURRENT 3 Genomics: The next wave

CONCURRENT 4 Health data insights: Research and evaluation

Bennelong Point Room

CHAIR Catherine O'Mahony

Farm Cove Room

CHAIR Dr Anna Cohen

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1.15pm Serverless beacon: Helping take genomic analysis from the cloud to the clinic
Brendan Hosking Australian e-Health Research Centre, CSIRO @ehealthresearchTeaching artificial intelligence to non-computer scientists using real-world data science tools
Dr Oscar Perez-Concha Centre for Big Data Research in Health, UNSW Sydney @UNSW1.30pm Enablers of rapid clinical implementation of new genomic analytic methods
Kate Birch Melbourne Genomics Health Alliance @Kate_BirchValidation of the InnoWell platform: A clinical trial protocol
Tim Seears InnoWell @tseears1.45pm Developing computable phenotypes for cardiometabolic risk factors in the EMR: The SPEED-EXTRACT study
Dr Richard Morris Centre for Translational Data Science, The University of Sydney @Sydney_UniDiabetes inpatient surveillance dashboard: Evaluation of effectiveness
David Pryce Western Sydney Local Health District @WestSydHealth2.00pm The clinical and economic outcomes of whole genome sequencing availability on containing a hospital outbreak of resistant Escherichia coli
Thomas Elliott QIMR Berghofer @QIMRBerghoferNovel use of electronic health record (EHR) data to improve the diagnosis and treatment of chronic hepatitis C in Australian general practice using MedicineInsight
Kendal Chidwick NPS MedicineWise @NPSMedicineWise2.15pm Which children and adolescents re-present to The Royal Children's Hospital Emergency Department with self-harm? Understanding the prevalence, risk and protective factors using electronic administrative data
Peter Summers The Royal Children's Hospital Melbourne @RCHMelbourne

2.30pm Afternoon tea and exhibition

PLENARY 2 **Importance of data quality in connecting care**

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LAWYERS

CHAIR Karen Keogh

Bennelong Point Room

3.00pm A health community approach to data quality: More efficient data sharing to support better care delivery

Kate Ebrill Product Manager, Australian e-Health Research Centre, CSIRO @ehealthresearch

Dr Nathan Pinski GP, Medi7 @drnatpin

3.30pm Data driven improvement: A 'one system' approach to integrated care

Ray Messom CEO, WentWest @RayMessom

4.00pm DEBATE "Machines like me" – AI will improve healthcare to a degree which makes the risks irrelevant

Facilitators **Prof Trish Williams** and **Emma Hossack**

Will artificial intelligence change the world forever and make it unrecognisable or is it just a case of false promises and misleading opinions? Is AI the tipping point for humanity or does it solve our biological limitations? This debate aims to both inform and raise questions – either way, it is not to be missed!

Prof Trish Williams Cisco Chair and Professor of Digital Health Systems, Flinders University @TrishWilliamsAu

Olga Ganopolsky General Counsel, Privacy and Data, Macquarie Group @Macquarie

Dr John Lambert Chief Medical Director, DXC Technology @DrJaffleOz

Emma Hossack CEO, Medical Software Industry Association

Prof Peter Leonard Professor of Practice and Principal, UNSW Business School and Data Synergies @PGLeonard

Lachlan Rudd Director Data and Analytics, eHealth NSW @eHealthNSW

5.00pm Networking reception

8.30am Registration open

PLENARY 3 **Quality and communicating data**

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CHAIR Alison Choy-Flannigan

9.00am AI in health: The ethical considerations
Prof Toby Walsh Scientia Professor of Artificial Intelligence, University of UNSW Sydney and Data 61 @TobyWalsh

9.30am People, ideas, machines. And in that order: Bringing AI into the health system
Prof Enrico Coiera Director, Centre for Health Informatics, Macquarie University @EnricoCoiera

9.50am The heart of our health system: Data for driving continuous improvement in health service delivery and quality
Damian Green Chief Executive Officer, eHealth Queensland @DamianJGreen

10.10am Considerations for using free text fields in clinical data for research and analysis
Prof Karin Verspoor Deputy Director, Health and Biomedical Informatics Centre, The University of Melbourne @karinv

10.30am Morning tea and exhibition

CONCURRENT 5 **Digital hospitals: Deriving value from data**

CONCURRENT 6 **Linking data**

CHAIR Bruce Pedersen

CHAIR Dr Peter Mulquiney

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11.00am Intelligent health applications require first-class Bridging the data gap between primary and secondary care interoperability
Steve Pisani InterSystems @InterSystems

Bridging the data gap between primary and secondary care
Maureen Turner BioGRID Australia @biogrid

11.15am Getting off work on time - using data to drive clinician efficiency in EMR
Lauren Andrew The Royal Children's Hospital Melbourne @RCHMelbourne

Managing data quality at scale: The National Health Services Directory
Allen Nugent Healthdirect Australia @healthdirectAU

11.30am Utilising live patient dashboards to improve VTE risk assessment and prevention
Dr Anthony Barberi Western Health @western_health

Enabling better patient outcomes with a secure, extensible and linkable general practice data set
Yuen Ai Lee NPS MedicineWise @NPSMedicineWise

11.45am Applying machine learning to electronic medical records to design and implementation of a learning health system in Australia uncover missed diagnoses. The SPEED-EXTRACT study
Dr Aldo Saavedra The University of Sydney @Sydney_Uni

Design and implementation of a learning health system in Australia
Dr Thomas Cundy Data Dissect @tomcundy

12.00pm Getting our monkey on: Introducing CHIMP, the Children's Hospital Information Management Portal
Sravani Nyayapathy NSW Health @NSWHealth

One year on, how helpful was the data in reducing low value care?
Dr Joanna Lawrence The Royal Children's Hospital Melbourne @DrJoannaL
Alice Voskoboynik The Royal Children's Hospital Melbourne @RCHMelbourne

12.15pm Lunch and exhibition

CONCURRENT 7 **Standards and data interoperability**

MASTERCLASSES

CHAIR Prof Karin Verspoor

CHAIR Greg Moran

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1.15pm Analytics with FHIR and SNOMED CT: Bridging the tooling gap
John Grimes Australian e-Health Research Centre, CSIRO @ehealthresearch

Masterclass: Modernising health data architectures for AI initiatives
"AI needs data and data needs AI". To take advantage of AI, massive health datasets of sufficient quality are required for training and validation. This poses a challenge for many health organisations.

1.30pm ERICA: A cloud orchestration meta-framework for secure health data analytics
Dr Tim Churches UNSW Sydney @UNSW

This masterclass looks at how modern approaches to data architecture can alleviate common data pitfalls in health AI and analytics initiatives.

1.45pm Text mining electronic medical records (EMR) to identify and examine testing and outcomes of patients presenting to emergency departments with low risk of cardiac-related chest pain. The SPEED-EXTRACT Study
Dr Charmaine Tam The University of Sydney @Sydney_Uni

Jon Teo APJ Healthcare & Data Governance Specialist, Informatica @JonHealthBA

2.00pm SNOMED CT for regional and national chronic diagnosis analysis and reporting
Kylynn Loi Australian e-Health Research Centre, CSIRO @ehealthresearch

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Masterclass: Making sense of data ethics: Just because you can, should you?

2.15pm An introduction to analysing a SNOMED CT coded dataset using FHIR terminology server
Matthew Cordell Australian Digital Health Agency @Matt_Cordell

In this masterclass, learn how to embed the ethical use of your data in your organisation and to ensure ethical collection and analysis beyond just compliance with privacy legislations and data security measures.

Liz Jones Associate Director GWI @GWI_Aus
Michelle Teis Partner GWI @GWI_Aus

2.30pm Afternoon tea and exhibition

PLENARY 4 Data driving opportunities for change

CHAIR Dr David Hansen

3.00pm International sharing of genomic and phenotypic data: Challenges and opportunities

A/Prof Zornitza Stark Clinical Geneticist, Victorian Clinical Genetics Services, Murdoch Children's Research Institute [@zornitzas](#)

Alejandro Metke Senior Research Scientist, Australian e-Health Research Centre, CSIRO [@ehealthresearch](#)

3.30pm Artificial intelligence in the clinical world

Dr Rishi Verma Co-Founder and CEO, Stethy

4.00pm Using linked administrative data to improve outcomes for vulnerable families in NSW

Dr Peter Mulquiney Principal, Taylor Fry

4.30pm Closing conference remarks

Dr David Hansen Chair, Health Data Analytics 2019 [@dhansen35](#)

4.40pm Conference concludes