AIMed North America Preliminary Agenda
11-14 December 2019
The Ritz-Carlton, Laguna Niguel, California

DAY 1 - Wednesday 11 December 2019		
15:30	16:00	Registration
16:00	18:00	**Artificial Intelligence in Medicine Primer Session** ***Moderator*: Dr Anthony Chang**, Chief Intelligence and Innovation Officer, CHOC and Founder of AIMed
19:00	21:30	Ice Breaker & BBQ buffet

DAY 2 – Thursday 12 December 2019		
07:30	08:00	Registration & Networking Breakfast
8:00	9:30	**Workshop 1: Machine Learning and Deep Learning** ***Moderator:* Robert Hoyt** Associate Clinical Professor, Internal Medicine Department Virginia Commonwealth University **Kevin Lyman** Chief Executive Officer, Enlitic **Mark Hoffman** Chief Research Information Officer, Children's Research Institute Children's Mercy Kansas City
8:00	9:30	**Workshop 2: Cognitive Computing and How Clinicians Think** This workshop will focus on how cognitive computing systems can combine physician intelligence and big data processing at scale to extend what either humans or machine could do on their own. This session covers: • Cognitive computing vs. AI – what is the distinction and why should physicians care? • How do current AI and cognitive computing systems arrive at their conclusions? • Why is mimicking human logic important, particularly in healthcare? • What strides have been made in the explainability and interpretability of the results produced by cognitive computing systems? • How do cognitive computing systems learn and what role do physicians and machine play in this process? • How can cognitive computing systems help physicians make better decisions? • How can physicians help cognitive computing systems learn and become more useful?

		• What practical applications of cognitive computing are seeing success in the industry today? • What people, process, and technology components make up the backbone of cognitive computing systems? • What are the current limitations and areas of research focus for cognitive computing systems? ***Moderator:*** **Dr Sharief Taraman** Division Chief, Pediatric Neurology Children's Hospital of Orange County **Dr John Lee** Chief Medical Information Officer Edward Hospital **Andrew Eye** CEO, ClosedLoop.ai
8:00	9:30	**Workshop 3: AI in Medical Imaging** ***Moderator:*** **Dr Orest Boyko** Associate Professor of Radiology University of Southern California **Marwan Sati** IBM Master Inventor, Development Executive Watson Health Imaging, IBM **Alexander Abed** Artificial Intelligence Platform Expert Watson Health Imaging, IBM **Ari Goldberg** Associate Professor Radiology and Cardiology Division Chief, Body Imaging Medical Director MRI at Loyola University Health System **Sonia Gupta** Director of Ultrasound Department of Radiology, Beth Israel Deaconess Medical Center
8.00	9.30	**Workshop 4: The CIO/CxO Workshop** ****** *This workshop is open only to C-level healthcare providers* ** This workshop will focus on a myriad of issues of particular relevance to healthcare executives, especially CIOs and CMIOs. Covering an array of themes like: • The ongoing data conundrum (data integrity, inaccuracy, deficiency and privacy) and how it remains an impediment to AI being fully deployed. • The data to intelligence continuum and how data and other infrastructure are essential to the deployment of AI. • The definition of AI and the various classifications of AI (weak vs strong, assisted/augmented/autonomous). • The various methodologies of AI (machine and deep learning, natural language processing, robotic process automation, and cognitive computing). • The clinical applications of AI and the areas of healthcare that have benefitted from the deployment of artificial intelligence. • The essential issues of artificial intelligence that stakeholders need to

		appreciate (bias, ethics, regulation, etc). • The business and economic aspects of artificial intelligence deployment in the clinical and health care arena. • The future of AI in medicine and health care and how it will impact various emerging technologies (5G, edge computing, embedded AI, etc). ***Co-Moderator:*** **Dr Anthony Chang,** Chief Intelligence and Innovation Officer, CHOC and Founder of AIMed ***Co-Moderator:*** **Scott Joslyn**, Senior Vice President & CIO, MemorialCare **John Henderson** Vice President & CIO Children's Hospital of Orange County
09:30	10:00	*Networking Break*
10.00	10.30	Opening Session Joined by: Christine Schweer
10:30	11.30	**Session 1: Transforming Healthcare with AI** ***Moderator*: Dr Anthony Chang,** Chief Intelligence and Innovation Officer, CHOC and Founder of AIMed **AI in Medicine: The Evolution of the Science and Its Practice** **Edward H. Shortliffe, MD, PhD** Some 50 years have passed in the evolution of Artificial Intelligence in Medicine (AIMed), a vibrant research and development field that has made great progress, tracking the corresponding evolution of computer science, hardware technology, communications, and biomedicine. Emerging from medical schools and computer science departments in its early years, the AIMed field is now more visible and influential than ever before, paralleling the enthusiasm and accomplishments of artificial intelligence (AI) more generally. This talk will briefly summarize some of that AIMed history, providing context for the status of the field as we enter our second half-century. **Transforming Cardiac Care with AI** **Eigil Samset**, Chief Technology Scientist, GE Healthcare How A.I. is transforming cardiology by adding value for all stakeholders in cardiac care: providers, payers and patients. This presentation explores: • Automation in imaging with smart devices • Automation in reporting with reproducible measurement • Predicting outcome by patient-centric big data analysis **AI Innovation in Healthcare** **Dr Ali Connell**, Senior Research Scientist, Google Health Google Health are committed to working with those on the frontline of healthcare to benefit patients and caregivers alike. In the future, we think AI tools will be able to learn how to identify patients at risk in real time. Secure mobile apps could then escalate urgent issues to the right specialist, so they can decide what to do. After a brief introduction to the work of Google Health, Dr Connell will discuss the opportunities and challenges relating to the use of AI in healthcare.
11.30	12.00	**Session 2: Clinicians and AI in Medicine I** **Topic TBC** **Dr Jesse Ehrenfeld,** Chair of the American Medical Association Board of Trustees **Educating the Clinician on AI**

		Dennis Wall, Associate Professor of Pediatrics (Systems Medicine), of Biomedical Data Science and, by courtesy, of Psychiatry and Behavioral Sciences Dennis will explain opportunities to bring AI to training and practicing physicians. He will provide a few recent examples for AI in the clinic and how clinicians can and should engage with AI for higher efficiency. He will also discuss ways to inspire clinicians to think like data scientists and to find gaps in standard practice that can be filled with AI.
12.00	13:00	Networking Lunch
12:15	13:00	Invitation only roundtable with GE Healthcare
13:00	14:00	**Session 3: Subspecialty Highlights I** **The Cardiac Atlas Project** **Sanjeet Hegde,** Co-Director of Research, Heart Institute, Program Director of 3D Innovations Lab, Rady Children's Hospital San Diego & Associate Clinical Professor of Pediatrics, University of California San Diego Cardiac malformations are the most common type of birth defect, occurring in approximately 1% of all births with many undergoing surgical correction and interventions after birth, which has led to improved survival into adulthood. Revisions in management strategies for congenital heart defect (CHD) patients evolve slowly, as it takes years for the physiological sequelae of interventions to become manifest. This slow evolution in CHD management could be accelerated by in-silico analyses of ventricular shape, fluid dynamics and wall mechanics. Medical imaging is routinely used to observe cardiac structure and function, but the quantitative assessment of changes in shape and function is problematic in CHD, largely because there is no detailed map of normal and abnormal hearts for comparison. This can delay the development of improved clinical strategies. The development of a CHD database as part of the Cardiac Atlas Project is the first step in making those more rapid and predictive assessments possible on an international scale. Eventually patient-specific models may routinely inform patient care as it will enable clinicians to quantify detailed ventricular shape and function in individual patients and compare them statistically against a database of patient examinations. This presentation discusses: Population based cardiac modelling, model-based cardiac MRI analysis, computer-aided cardiovascular diagnosis, personalized cardiac biomechanics. **AI/ML can help you smile** **Eric Pulver**, Adjunct Instructor University of Indiana Dental School & Maxillofacial Surgeon at Pulver Oral Surgery The impact of oral health on systemic health is significant. AI is being utilized in dentistry to aid in radiographic identification and interpretation. This may be the first step towards radiographic diagnostic standardization, reduced costs, enhanced patient outcomes and closing of oral systemic health gaps. This session explores AI in dentistry, covering sensitivity, specificity, accuracy and precision, and examines where we are today and what's next? **Topic TBC** **Pure Storage** **The future of teleradiology** **Samir Shah,** VP of Clinical Operations, Radiology Partners Samir will describe the future of teleradiology with the assistance of AI and give a brief historical context.

14:00	15:00	**Session 4: Health Imaging** ***Moderator:*** **Dr Orest Boyko**, Associate Professor of Radiology, University of Southern California **Topic TBC** **Tanveer Syed-Mahmood**, IBM Fellow and Chief Scientist **Topic TBC** **Charles Stanley** **Topic TBC** **Francois Nicolas**, Chief Digital Officer, Guerbet **AI in Medical Imaging: The Final Frontier?** **Marwan Sati,** IBM Master Inventor, Development Executive, Watson Health Imaging, IBM The challenge of AI in Medical Imaging is truly to go where few have gone before. Just how challenging is AI for Medical Imaging? Consider that the most advanced human sensory organ is our eyes. To be useful AI needs to add value to clinical specialists who have gone through on average ~15 years of post-secondary education. This talk speaks about how we are overcoming these momentous challenges into this Final Frontier.
15:00	15:30	Networking break
15:30	16:30	**Abstract Competition (Breakout Rooms, 6 Categories)** **Faculty panel:** • **Robert Hoyt,** Associate Clinical Professor, Internal Medicine Department, Virginia Commonwealth University • **Todd Ponsky,** Professor of Surgery, Director of Clinical Growth and Transformation at Cincinnati Children's Hospital • **Dr Orest Boyko,** Associate Professor of Radiology, University of Southern California • **Sonia Gupta**, Director of Ultrasound, Department of Radiology, Beth Israel Deaconess Medical Center and Instructor of Radiology at Harvard Medical School
16.30	17.00	Sunset Break
17:00	18.00	**OPEN FORUM** All speakers from workshops and plenary join on stage to engage with the audience in an open debate - led by Dr Chang **(Winners from the Abstract Competition)**
19:00	22:00	AIMed Social - BBQ, music, networking

DAY 3 – Friday, 13 December 2019		
07:30	08:00	Registration & Networking Breakfast
8:00	9:30	**Workshop 5: Natural Language Processing in Healthcare** Join this workshop to learn about natural language processing (NLP) and natural language understanding (NLU). Review practical applications of NLP/NLU in healthcare and learn about getting started with building NLP/NLU applications. ***Moderator:*** **Piyush Mathur** Staff Anesthesiologist/Intensivist, Quality Improvement Officer Cleveland Clinic **Louis Ehwerhemuepha** Data Scientist Children's Hospital Orange County **Jai Nahar** Attending, Division of Cardiology, Children's National Heart Institute, Children's National Hospital; Clinical Associate Professor of Pediatrics, George Washington University School of Medicine, Washington DC
8:00	9:30	**Workshop 6: Deploying Machine Learning in Healthcare Environments** **Colleen Cunningham Greene** General Manager of Healthcare DataRobot
8.00	9.30	**Workshop 7: AI Deployment in Healthcare** **iWinStack**
8:00	9:30	**Workshop 8: Blockchain and Cybersecurity in Healthcare** ***Moderator:*** **Sri Bharadwaj** Sr. Director Information Services and CISO UC Irvine **The first 30mins of this workshop will be dedicated to blockchain.** ***Empowering the field of genomic medicine via blockchain*** **Ingrid Vasiliu-Feltes, Chief Quality and Innovation Officer, MEDNAX** *Blockchain technology can be one of the solutions that allows for population health and precision medicine solutions to be implemented at a larger scale, as it addresses some of the major barriers within the healthcare system such as privacy, access, data ownership, decentralization and more. Ingrid will deep dive into the field of genomic medicine, which has witnessed exponential technological advances over the past decade and is now a catalyst for innovative solutions that can change the paradigm in healthcare from "sick care" to "preventative care". Genomics serves as the foundation for developing large scale precision medicine programs, fuels scientific research and acts as a driver for optimizing population health globally.* **The second half of this workshop will be dedicated to Cyber Security. Led by InfoSec practitioners, this workshop covers key themes and asks:** ● How can the security industry respond to innovations and AI? ● What can be done to address the cyber security skills shortage?

		• How can security be an enabler in cloud-first organizations? • With the advent of disruptive technologies like IoT, how can clinicians and healthcare executives better secure their organizations? **Anthony Lakin** CISO at Children's Hospital Orange County
8.00	9.30	**Workshop 8: Artificial Intelligence in Drug Discovery** **Dr Spyro Mousses**, Executive Scientific Adviser, CHOC Children's Hospital of Orange County and CEO and Founder, Systems Oncology **(invited)**
09:30	10:00	*Networking Break*
10.00	10.30	Opening Session Morning Keynote **Sean Lane,** Chief Executive Officer, Olive AI
10:30	11.30	**Session 5: Overcoming issues in AI deployment** **The Role of Cognitive Science in Developing Safe and Acceptable Clinical Technologies** **Vimla L. Patel**, Senior Research Scientist and Director of Center for Cognitive Studies in Medicine and Public Health at the New York Academy of Medicine Exploring decision support systems, although often appearing intelligent, seldom align with the mental processes underlying clinical decisions. Intelligent systems should accommodate to the constraints of a clinician's task and the human cognitive system, augmenting human intelligence while emphasizing the important role of the human mind. Clinician-system interactions in complex environments, such as critical care, will generate errors while also creating opportunities for error detection and correction in the context of social-cultural factors. The science of cognition is key for understanding patient safety when clinicians interact with AI tools. **Data Scientists are from Mars, Clinicians are from Venus** **David Ledbetter,** Senior Data Scientist, Children's Hospital Los Angeles Clinicians and data scientists come from very different backgrounds and speak different languages. Bridging that gap is a critical component to being able to successfully execute projects in healthcare. This talk will discuss some of the successful strategies for improving communication to foster collaboration between interdisciplinary teams. Topics will include embedding data scientists in a clinical environment, embedding clinicians in data analysis, and providing clinical education to aspiring data scientists. **Key Questions for State Regulators Regarding AI Deployment** **Eric Fish,** Chief Legal Officer, Federation of State Medical Boards This presentation will address the impact of artificial intelligence on patient safety and quality of care and help identify the proper role of state medical boards. It will also: • Explore the regulatory framework around AI and the role of state medical boards to assist in the evolution and deployment of AI, without sacrificing patient safety and public protection • Address current and near-future AI and machine learning approaches to health care delivery that may become regulated by state medical boards

		• Identify what standards could be developed to address concerns about the use of AI and machine learning in health care delivery, including whether future physician competency standards should include understanding of the use of AI in a clinical setting • Explore how to deliver patient education resources that foster an understanding of the role and use of AI in the delivery of care • Discuss roadblocks limiting the full potential of AI in health care while also identifying areas of future cooperation between industry and the regulatory community **TBC** **Gretchen Purcell Jackson**, Vice President and Chief Science Officer, IBM Watson Health **(invited)**
11.30	12.00	**Session 6: Clinicians and AI in Medicine II** ***Moderator:*** **Aziz Nazha,** Director, Center of Clinical Artificial Intelligence, Cleveland Clinic **Digital disruption of medical education** **Todd Ponsky**, Professor of Surgery, Director of Clinical Growth and Transformation at Cincinnati Children's Hospital The good news is that new medical knowledge is growing exponentially. The bad news is that new medical knowledge is growing exponentially! It is becoming increasingly difficult to keep up with doubling medical knowledge. How will we stay current in the future? Textbooks, medical society meetings, and journals are becoming less effective. WIth the help of machine learning algorithms, crowdsourcing and cutting edge digital platforms, the way we stay current will change. **Using AI in Medical Education and Training** **Jon Detterich,** Pediatric Cardiologist, Children's Hospital Los Angeles and Assistant Professor of Pediatrics at the University of Southern California **Jennifer Miller,** Pediatric Cardiology, Children's Hospital Los Angeles and Digital Health Fellow, USC Center for Body
12.00	13:00	Lunch
12:15	13:00	Invitation only roundtables x 3

13:00	14:00	**Session 7: Making it Real – AI Applications in Medicine** ***Moderator:*** **Frances A. Ayalasomayajula,** Global Healthcare, Population Health Information Technology and Innovations Lead, HP **Making it Real: Don't be afraid of leaving the forest** **Arta Bakshandeh,** Chief Medical Information Officer, Alignment Healthcare In healthcare data science, the random forest classification algorithm is quick, reliable and often considered state-of-the-art AI. In this session, Dr. Arta Bakshandeh, chief medical information officer at Alignment Healthcare, will discuss how the Medicare Advantage services company's data science team moved away from the random forest classifier and created multiple machine learning models to predict hospital admission risk. He will talk about the hits and misses on the road to implementation, the importance of C-suite buy-in and the evolution of Alignment's health plan model. **Artificial Intelligence in Healthcare, The Cleveland Clinic Way** **Aziz Nazha,** Director, Center of Clinical Artificial Intelligence, Cleveland Clinic Dr Nazha will discuss current state of the art machine learning and deep learning model applications in healthcare. He will also discuss Cleveland Clinic Center for Clinical Artificial Intelligence initiatives and current ongoing projects. **Perceptions and attitudes towards the adoption of AI enabled clinical solutions** **Frances A. Ayalasomayajula,** Global Healthcare, Population Health Information Technology and Innovations Lead, HP Fran will present findings from a recent study regarding physicians and patients' perceptions and attitudes on the adoption of AI enabled clinical solutions. Additional data will include their opinions on the most pertinent matters to address in regard to AI adoption. In closing, inferences drawn from those findings will be shared. **Getting started with AI in a healthcare organization** **Amy Cate Huveldt,** Vice President of Performance Excellence for Baptist Health Amy will describe how Baptist Health began assessing opportunities to apply artificial intelligence across their organization. After an initial assessment, the next step was to initiate what could be daunting conversations for clinicians, staff and leaders. She will describe their experience gathering cross-functional groups together to discuss opportunities, de-mystify misconceptions and alleviate concerns. In closing, Amy will outline their vision and strategy for the future to keep conversations and innovation alive. **Implementing an AI tool to reduce readmission rates** **Santiago Romero-Brufau,** Assistant Professor of Medicine and Healthcare Systems Engineering at Mayo Clinic Dr. Romero-Brufau will describe findings and learnings from a recent study at Mayo Clinic where a machine-learning clinical decision support tool was implemented to reduce readmission rates in one of Mayo's hospitals. The project used social determinants of health and clinical data to identify patients at risk of readmission, and then provided recommendations to the clinical team about how to reduce that risk using different interventions generally focused on care transitions.

14:00	15:00	**Session 8: Subspecialty Highlights II** ***Moderator:*** **Todd Ponsky**, Professor of Surgery, Director of Clinical Growth and Transformation at Cincinnati Children's Hospital **Critical care informatics: Crowdsourcing knowledge discovery through collaborative ecosystems and open data** **Kenneth E. Paik,** Research Scientist, MIT Critical Data ● Data generated by patients should be used for the benefit patients ● Hoards of health data is being wasted, insufficiently used and uncharacterized ● Opening access to global researchers unleashes the potential medical knowledge embedded in data ● Collaborative ecosystems drive innovation, yielding multiplicative impact **Big data in the Cardiac ICU; What a CNN can do for you?** **Dr Kevin Maher,** Professor of Pediatrics, Emory University School of Medicine. Director, Cardiac Intensive Care, Children's Healthcare of Atlanta. Medical Director, Pediatric Technology Center, Georgia Institute of Technology. The use of big data and AI in the management of critically ill patients holds great promise in recognizing subtle changes in patient status and may ultimately help to improve the outcomes of critically ill patients. Convolutional neural networks are used to "visualize" data and help to identify patterns. We discuss our experiences with CNN in a cohort of critically ill infants, aiming to recognize different levels of critical illness based on waveform patterns. **AI in Cancer Care** **Dr Stephen Wong,** Chief Research Information Officer, Houston Methodist Hospital; Associate Director, Houston Methodist Cancer Center; Director, T.T. & W.F. Chao Center for BRAIN, Houston Methodist Research Institute; John S Dunn Presidential Distinguished Chair, Houston Methodist; Professor, Weill Cornell Medicine This talk discusses how AI can play a role to provide precise medical decision in cancer and continual care of cancer patients and survivors. Prevalent AI efforts mostly focus on data generated from single modality, notably in imaging or omics data. However, complex diseases like cancer would require convergence of all relevant information of patients generated by various modalities. In this era of big data and electronic medical record, such a convergent paradigm is achievable and should be adopted. This talk will present example projects at Houston Methodist to showcase the power of convergent AI in reducing wasteful procedures and costs in breast cancer as well as AI-driven digital therapeutics for cancer care beyond hospital walls. **Image Guided Surgery: Current and Future State** **Sarvam P. TerKonda,** Plastic Surgeon, Division of Plastic and Reconstructive Surgery; Co-Director, Mayo Clinic Cosmetic Center and Medical Director, Center for Connected Care Advances in image guided surgery (IGS) will transform the technical landscape of how surgeons will execute the most complex of procedures. Detailed images and 3D models, currently aid in the pre-operative planning, intraoperative execution and post-operative care of the surgical patient. The integration of robotics, artificial intelligence and advanced imaging will result in shortened operative times, enhancing recoveries and improving outcomes. This presentation will review: ● The current state of image guided surgery and examples of clinical applications ● The challenges of integrating advanced imaging with robotic surgery including image acquisition, processing and 3D visualization ● The future and emerging applications of image guided surgery

15:00	15:30	Networking break
15:30	16:30	Shark Tank Competition **5 x 5 min pitches** and 5 mins questions Winners announced at Gala Dinner Judges: ● Nicole Washington, Director of Innovation and Growth, OCTANe OC, USA ***(co-moderator)*** ● Steve Ardire, AI startup Advisor ***(co-moderator)*** ● Omkar Kulkarni, Chief Innovation Officer, Children's Hospital Los Angeles ● Edmond Banayan, Chairman, Los Angeles Venture Association (LAVA) Healthcare. Founder & CEO, Chronaly Inc. ● David Friedman. Managing Director, C-Level Partners & VP, Tech Coast Angels ● Kathryne Cooper, Co-Director, The West Coast Consortium for Technology & Innovation in Pediatrics (CTIP)
16.30	17.00	Sunset Break
17:00	17:45	**OPEN FORUM** All speakers from workshops and plenary join on stage to engage with the audience in an open debate - led by Dr Chang
19:00	22:00	AIMed Gala Dinner

DAY 4 – Saturday 15 December 2018		
07.00	8.45	MIG Meeting
8:00	9:00	Breakfast
9.00	10.00	Opening Session Joined by: Karishma Muthukumar **TBC** **Dr. Tony Young,** National Clinical Lead for Innovation, National Health Service England **(invited)** **Keynote Session** **Looking Ahead with Both Caution and Eager Anticipation** **Edward H. Shortliffe, MD, PhD** Early predictions of AIMed's capabilities and rapid impact were stymied by a variety of technical and logistical challenges. Accordingly, it is prudent to exercise caution in assessing the speed at which further progress will be made, despite today's enthusiastic predictions in the press and significant investments by industry and health systems. The inherent complexity of medicine and of clinical care necessitates that we address issues of usability, workflow, transparency, safety, and the pursuit of persuasive results from formal clinical trials. These requirements contribute to an ongoing investigative agenda that means AIMed research will continue to be crucial. Research organizations must accordingly interact effectively with industry to help advance new opportunities and capabilities as the community increasingly embraces these technologies.

10.00	11.00	**Session 9: Public Health Perspectives - Opportunities and Applications of AI around the world** **Application of AI in Lower Middle Income Countries** **Dr. Devyani Chowdhury,** Director of Cardiology Care for Children **Dr. Zahra Hoodbhoy,** Assistant Professor of Medicine at Aga Khan University, Karachi With reference to examples from Karachi, Pakistan this presentation focuses on the enhancement of task ability of the peripheral community health worker with respect to a) Fetal doppler to predict adverse perinatal outcomes, and b) Pulse oximetry to detect newborn wellness. It also looks at the development of clinical care algorithms using AI in LMI with respect to a) Detection of Congenital Heart disease on echocardiography and b) Predictive of T2* in transfusion dependent patients with Thalassemia Major. **Applications of AI in Population Health** **William Feaster,** Vice President, Chief Health Information Officer, Children's Hospital Orange County In medicine, we are very good at applying a limited set of data from our Electronic Medical Record to the care of the individual patient before us. Broadening the scope of our care to an entire population of patients requires a whole new set of data analytics aimed at identifying key characteristics and gaps in care. Coupling the data from a population with tools to better manage preventive care, as well as diseases in that population, can yield tremendous improvements in health and large reductions in expenditures. **Creating a Mental Health Ecosystem** **Richard Afable,** President and Chair of the Board, MindOC Mental Health is challenging every community in the United States. One in four people are affected and few resources or solutions exist. Orange County has embarked on a public-private partnership (BeWell Orange County) in order to create a mental health ecosystem that will transform how, when and where mental health care is delivered and received. This work has the potential to revolutionize the mental health of every community in this country. **TBC** **Shaista Malik,** Director of the Susan Samueli Center for Integrative Medicine **(invited)**

11.00	12.00	**Session 10: The Future of AI in Medicine** **Precision Pediatrics: Connecting machines, information and people** **Timothy Chou**, Lecturer, Stanford University In the consumer world Google connected 1m computing machines and changed the way we find information. Netflix has connected 1m people and changed how we watch TV and Lyft has connected 1m cars and changed how we got here today. What if we connected all 500,000 healthcare machines in all the children's hospitals in the world? How would that change children's healthcare globally? This talk will discuss how the pediatric edge, a global network of edge servers will be able to connect heterogeneous healthcare machines in a reliable, secure, private and high performance way. We'll further show how this is foundational in making a leap in the usage of neural networks to build AI doctors. **AI will help NASA's Astronauts manage health and human performance to Mars and back** **James Hury,** Deputy Director and Chief Innovation Officer for the Translational Research Institute for Space Health Four NASA Astronauts are planning to launch to Mars. They will travel 2.5 years through a very hostile environment, descend safely to the surface of Mars, reside on another planet for a year, relaunch from Mars, and return to Earth with limited equipment, power, data, recreation, and food. A completely self-contained and personalized health system is needed. Smart tools need to be integrated into a multimodal system for holistic health measurement and countermeasures response to ensure a successful mission even if the crew is unable to function. The Translational Research Institute for Space Health is empowered by NASA's Human Research Program at John Space Center to explore all technologies that support human health and performance in deep space exploration. We source and seed industry based technologies and early research in academic settings through nondilutive, federal grant funding. James wants to challenge the AI community to help facilitate development of AI uses in precision medicine, decision support tools, and artificial general intelligence for an onboard operating system. His team want to support future health technology to support high performing individuals diagnosis themselves and manage themselves back to peak performance with a 5-15 year horizon. **TBC** **James M Dzierzanowski,** Executive Director, Kaiser Permanente **(invited)**
12.00	12.30	**OPEN FORUM** All speakers from workshops and plenary join on stage to engage with the audience in an open debate - led by Dr Chang
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10.00	15:00	Golf Tournament