



Eureka-Singapore Monsoon School on Translational Medicine

29th October – 2nd November 2018

One°15 Marina Club, Sentosa Cove, Singapore



Welcome to Eureka-Singapore Monsoon School on Translational Medicine

Eureka Singapore, by the Eureka Institute of Translational Medicine and SingHealth Duke-NUS Academic Medical Centre debuts the inaugural **Monsoon School – Translational Medicine**.

*“**Translational Medicine (TM)** is defined as the resolution of unmet medical needs through the use of technology, creativity and scientific method. The field of translational medicine encompasses molecular medicine, intellectual property, financing, regulation, preclinical and clinical trial studies, among other disciplines.”*

Unlike traditional courses, the Monsoon School is tailored to individual needs. Expect 5 days of complete seclusion from work and an intense experience with the expert faculty members. Monsoon School is not based on lectures solely but on learner-centred discussions, mentoring by internationally recognised leaders, and exploration of real-life case studies. Skills garnered from this program will help individuals and team members to address the challenges facing drug development today, and bridge the divide between concept and patient.

The Monsoon School is targeted at researchers interested in translational research – looking to further expand their skills set or individual career development, be it in research, academia and/or industry.

Participants can expect to:

- Analyze the business, scientific and regulatory aspects of TM, and develop critical thinking skills to approach and explore the challenges
- Examine case studies, and develop creative problem-solving strategies and novel skills to build new kinds of teams
- Hone their ability to communicate effectively across broad audiences
- Be inducted into the Eureka Network upon graduation – having direct access to a vast network of accomplished peers, leaders and partners in TM – all building bridges and closing gaps to form a global community of TM professionals

ABOUT EUREKA

The mission of the Eureka Institute is to develop a community of translational medicine professionals equipped to catalyze the application of discoveries for the benefit of human health.

Eureka’s vision is to build and foster a global community of translational medicine professionals to advance the application of biomedical innovation for the tangible benefit of patients and society as a whole.

The Eureka Institute is a non-for-profit institute founded by an international group of leaders in translational medicine, educators, and institutional administrators. Eureka’s mission is to develop a community of translational medicine professionals equipped to catalyze the application of discoveries for the benefit of human health. The institute does this through education and building a community of translational scientists. Among the activities of Eureka are a yearly certificate leadership course in translational medicine in Siracusa, Italy. The 11th certificate course will be on April 7 – 13, 2019.

Eureka partners with major universities worldwide: SingHealth Duke-NUS Academic Medical Centre; Stanford University, University of Miami, University of Arizona and the UMC Utrecht. Nutricia Research and University College London are supporters of Eureka. (www.eurekainstitute.org)

Dear Participants

The Monsoon School is an initiative that is part of the partnership between SingHealth Duke-NUS Academic Medical Center and the Eureka Institute for Translational Medicine.

Our mission, which we are profoundly committed to, is to change Medicine by harnessing technology to address unmet medical needs. Our Ethos is “patients at the heart of all we do”. With this in our hearts and minds, we aim to be transformational locally, regionally and worldwide, by inspiring and catalyzing growth through innovation, education through experience, and transformation through creativity and resilience. A major goal of our Academic partnership is transforming medicine and improving lives. Truly durable and meaningful transformation requires people as its foundation. We are proud to contribute, through this Monsoon School, to the formation of the leaders of the future: YOU.

We welcome you with open arms and a warm smile for an exciting journey together.

Professor Ivy Ng
Group CEO
SingHealth



Professor Thomas Coffman
Dean
Duke-NUS Medical School



Dear Participants

It is my greatest pleasure and honor to welcome you to the inaugural Eureka Monsoon school Translational Medicine in Singapore, organized with the SingHealth Duke-NUS Academic Medical Centre. Translational Medicine faces many challenges and the only way to solve this definitely is to work together and find new solutions for the pressing problems we face. Eureka was founded over a decade ago to do just that, and to empower young translational scientist to overcome the many hurdles between bench and bedside. One of that is obviously collaboration and the launch of UCAN-Asia is one of the hopeful developments of the last year.

Already it has become clear that many of the most promising new advancements and opportunities in TM sprout from this part of the world. As an example, SingHealth Duke-NUS Academic Medical Centre has been one of the first partners and promoters of Eureka. It is clear that Asia will play a pivotal role in the future of translational medicine. This school offers you all possibilities to explore and find your own personal role in this exciting field. A line up of experienced and innovative leaders in translational medicine is ready to help you to take the next steps in your career. I am confident that this school will offer everything you need to become a successful translational researcher. I wish you an inspiring meeting!

Berent Prakken
Professor of Pediatric Immunology and Vice Dean for Education,
University Medical Centre Utrecht
CEO/Secretary Eureka Institute



ABOUT SINGHEALTH DUKE-NUS ACADEMIC MEDICAL CENTRE

The strategic partnership in Academic Medicine between Singapore Health Services and Duke-NUS Medical School builds on the collective strengths of the SingHealth Group and Duke-NUS’ research and medical education capabilities. Together, they create a vibrant academic nexus for new discoveries, learning and care innovation – and bring it to where it matters most: Patients. The Academic Medicine efforts are enhanced with the establishment of the Academic Clinical Programmes (ACPs) and joint institutes, including the Academic Medicine Education Institute (AMEI) and Academic Medicine Research Institute (AMRI) which facilitate the active growth and development of driven scientists and educators into the SingHealth Duke-NUS family. (www.academic-medicine.edu.sg)

Speaker list 2018

Salvatore Albani, MD, PhD,
Professor, Duke-NUS Medical
School Singapore, Director,
Translational Immunology Institute,
UCAN-A Chair, President, Eureka
Institute

Freddy Boey, PhD
Professor and Senior Vice President
(Graduate Education & Research
Translation), National University of
Singapore

Jerry Chan, MB, BCh, PhD
Associate Professor, SingHealth Duke-
NUS OBGYN Academic Clinical
Program; Senior Consultant, Department
of Reproductive Medicine, KK Women's
and Children's Hospital (KKH)

Ann-Marie Chacko, PhD Assistant
Professor, Cancer & Stem Cell
Biology Program, Head, Laboratory
for Translational and Molecular
Imaging (LTMI), Duke-NUS Medical
School Singapore

Valerie Chew, PhD
Principal Investigator, Translational
Immunology Institute (TII), SingHealth
Duke-NUS Academic Medical Centre

**Pierce Chow, MMS MMed, FAMS,
FRCSE, PhD**
Senior consultant and Co-Director
(Surgical), Comprehensive Liver Cancer
Clinic, NCCS; Senior Consultant
Surgeon, HPB and Transplant Surgery,
Singapore General Hospital (SGH);
Professor and Course Director, Duke-
NUS Medical School Singapore

Scott Compton, PhD
Associate Dean, Medical Education,
Research and Evaluation; Associate
Professor, Education, Duke-NUS Medical
School Singapore

**Ian Curran, BSc, AKC, MBBS, FRC,
Pg Dip Med Ed, FFPMRCA, FAcadMed,
FSSH**
Vice Dean, Education, Duke-NUS
Medical School Singapore; Co-Director,
Academic Medicine Education Institute

David Epstein, PhD
Vice Dean, Innovation & Entrepreneurship,
Office of Technology & Development;
Associate Professor, Cancer & Stem Cell
Biology Programme, Duke-NUS Medical
School Singapore

Wainwright Fishburn, JD
Partner, Cooley LLP

Florent Ginhoux, PhD
Senior Principal Investigator,
Singapore Immunology Network
(SIgN), Agency for Science,
Technology and Research (A*STAR),
Singapore, Adjunct Visiting Associate
Professor, Shanghai Immunology
Institute, Jiao Tong University, China

Gianfranco Grompone, PhD
Discovery Nutrition & health
science leader, Lesaffre
International, France

Irene Lee Cheng Jie, PhD Postdoc
fellow in Medical Education and
Senior Associate, Duke-NUS
Medical School Singapore

Kenneth Kwek, MD
Chief Executive Officer, Singapore
General Hospital and Deputy Group
Chief Executive Officer
(Organisational Transformation &
Informatics), Singapore Health
Services, Senior Consultant,
Maternal Fetal Medicine and Adjunct
Professor, Duke-NUS Medical
School Singapore and Yong Loo Lin
School of Medicine, NUS

Lin Xiang Liang
Global President, Esco Healthcare

Yvonne Lee, PhD, MPH
Health Economic and Market
Access Lead, Asia Pacific Affiliate
Research Analyst, National Clinical
Research Centre, Ministry of Health
Malaysia

David Matchar, MD
Professor & Director, Health
Services & Systems Research
Programme, Duke-NUS Medical
School Singapore; Professor, Duke
University Medical Center Director,
Center for Clinical Health Policy
Research, Durham, NC

Alberto Martini, MD
Directors Scientifico, IRCCS
Istituto Giannina Gaslini

Cheryl McCaffery
Deputy Director, Centre for
Technology and Development, Duke-
NUS Medical School Singapore

Steven Myint, MD, PhD
Senior Fellow, A*STAR;
Consultant, ETPL; Adjunct
Professor, Center for Technology,
Enterprise and Development, Duke-
NUS Medical School Singapore

Ng Kee Chong, MD
Chairman Medical Board & Senior
Associate Dean, KKH; Senior
Consultant, Division of Medicine, KKH;
Adjunct A/Professor, Duke-NUS
Medical School Singapore & Yong Loo
Lin School of Medicine, NUS

Joanne Ngeow, MBBS, FRCP, MPH
Senior Consultant, Division of
Medical Oncology, National Cancer
Centre Singapore; Head, NCCS
Cancer Genetics Service

Nicola Ruperto, MD, PhD
Istituto G. Gaslini, Pediatria II,
Reumatologia; Senior Scientist,
PRINTO

Vicki Seyfert-Margolis, PhD
Founder and CEO, My Own Med, Inc.

Manpreet K. Singh, MD, MS
Assistant Professor of Psychiatry and
Behavioral Sciences; Director,
Stanford Pediatric Mood Disorders
Program; Akiko Yamazaki and Jerry
Yang Faculty Scholar in Pediatric
Translational Medicine, Stanford
Child Health Research Institute,
Stanford University, Stanford, CA

Soo Khee Chee, MD
Senior Advisor and Professor, Benjamin
Sheares Professor of Academic
Medicine; Visiting Senior Consultant,
Department of Surgery, SGH; Professor
of Surgery, Yong Loo Lin School of
Medicine, NUS

Wong Tien Yin, MD, PHD
Medical Director and Senior Consultant
Ophthalmologist, Singapore National
Eye Centre, Deputy Group CEO
(Research & Education), Singapore
Health Services and Vice-Dean,
Academic and Clinical Development,
Duke-NUS

**Yeo Joo Guan, MBBS, PhD, MRCPCh,
MMed (Paeds)**
Clinician-Scientist, Translational
Immunology Institute, Assistant Professor,
Duke-NUS Medical School Singapore,
Consultant, Division of Medicine, KKH

Organizers

EUREKA Institute for Translational Medicine
 (www.eurekainstitute.org)
 SingHealth Duke-NUS Academic Medical Centre
 (<https://www.academic-medicine.edu.sg>)

Course Coordination

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Organizing committee

Scott Compton
 Salvatore Albani
 Irene Lee

Evaluations

Prof Scott Compton, Jean Xie Huijuan
 (Duke-NUS Medical School)

Course Venue

Constellation I & II ballroom
 One°15 Marina Club
 11 Cove Drive, Sentosa Cove, Singapore 098497
 (<http://one15marina.com>)



How to get there

- 1) **By One15 Marina shuttle bus (see instruction provided)**
- 2) **By Car (see instruction provided)**
- 3) **MUST bring along the event confirmation letter for entry**

By One15 Marina shuttle bus

Show hardcopy or digital copy of the event confirmation letter to the driver for access.

- 1) Shuttle bus pick up point is from Harbourfront MRT Station Exit D. Please see below schedule.
- 2) Upon alighting, turn right and walk along the brick pathway to the clubhouse.
- 3) Once entering the clubhouse, proceed to the lobby where there will be signs pointing you to the event’s venue.

Shuttle operating schedule to One15 Marina	
From Harbourfront Exit D taxi stand (Mon-Fri)	
08:10	
08:30	
From One15Marina to Harbourfront	
17:10	21:10
17:40	21:40
18:30	22:10
19:15	22:45
19:45	23:10
20:15	23:40
Important note:	
Pre-arranged transport IN and OUT of One15 Marina is provided at stipulated timings only. Kindly arrange your own transport at own cost, if you miss it.	
The course will start daily at 09:00 sharp. Coffee will be served from 08:30 onwards.	



By Car

A hardcopy of the event confirmation letter MUST be presented and given to the gantry staff for free access into Sentosa. Use Lane 1 & 2 only.



ONE°15 MARINA CLUB
 #01-01, 11 Cove Drive, Sentosa Cove
 Singapore 098497
 Latitude 1°14.50'N, Longitude 103°50.40'E

www.one15marina.com
 Telephone +65 6305 6988
 Facsimile +65 6376 0888
 Company Registration No. 53039214 C

INSTRUCTION TO REACH ONE°15 MARINA CLUB:

1. After passing through the Sentosa gantry at the bridge, go straight and follow directional signs.
2. Stay in the left lane as you pass the first two roundabouts before reaching the Sentosa Cove security entrance.
3. Upon entering the Sentosa Cove gantry, turn right at the roundabout with the dolphin fountains, towards Cove Drive.
4. Drive down Cove Drive and turn left at the first left turn, into ONE°15 Marina Club
5. Inform the security guard at the guard house that you are attending an event ONE°15 Marina Club
6. Turn left down the ramp to the visitors' carpark at the Cove Arrival Plaza
7. After parking your car, proceed to level 1 of the Cove Arrival Plaza (near 7-Eleven).
8. Walk towards the Marina, where the yachts parked, and turn to your right.
9. Walk along the red brick pavement till you arrive at the ONE°15 Marina Club, on your right. You will see the WOK15 Restaurant.
10. Proceed up the spiral staircase to Level 1, turn right and proceed to the reception area. Our staff at the reception will guide you to the venue of your event.



ONE°15 MARINA CLUB
 # 01-01, 11 Cove Drive
 Sentosa Cove
 Singapore 098497
 Tel: +65 6305 6988





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EVENT CONFIRMATION LETTER

Note: To enhance the Sentosa experience and to realize Sentosa’s long-term traffic management plan, please proceed to any lanes from Lane 1 to 2 ONLY and present this letter. Lane 3 to 6 are for vehicles with registered IUs and auto deduction of admission charges will be done through your cash card if you drive through this lane. The Club will not reimburse any auto deduction made.

WARNING
 Speed limit in Sentosa:
40 km/h

Please present this authorization at the Sentosa Gantry for complimentary admission. This pass does not cover transportation charges for Sentosa Express or Bus and cable car. All fields are to be completed to gain complimentary access into Island. Entry is subject to prevailing vehicular procedures.

- Nature of Function : SINGAPORE HEALTH SERVICES PTE LTD SEMINAR EVENT
- Date : 29 OCTOBER 2018 UNTIL 02 NOVEMBER 2018
- Venue : ONE15 MARINA CLUB, CONSTELLATION BALLROOM I, LEVEL 2
- Transport Arrangements : SELF-ORGANISED
- Number of Guests : 45 PERSONS PER DAY

This is to certify that the above group arriving will be attending a function at our premises. Kindly allow the passenger to enter without charging them.

Approval By:

Benedict

Issue by : Benedict Tan
 Department : Sales
 Contact Number : 6309 3491

Special Note:

- This event confirmation letter only entitles the holder to complimentary island admission only.
- Upon admission at Sentosa Gantry, please present this completed letter to the officer.
- Complimentary island admission is inclusive of private coach
- Speed limit on Sentosa Island is at 40km per hour.
- Sentosa reserves the right to retain this letter at the point of entry.



HISTORY

Singapore’s amazing tale tells of a once sleepy fishing village that defied the odds to transform itself into a first-world metropolis.

ABOUT SINGAPORE – THE GARDEN CITY

Though physically small, Singapore is an economic giant. It has been Southeast Asia's most modern city for over a century. The city blends Malay, Chinese, Arab, Indian and English cultures and religions. Its unique ethnic tapestry affords visitors a wide array of sightseeing and culinary opportunities from which to choose. A full calendar of traditional festivals and holidays celebrated throughout the year adds to its cultural appeal. In addition, Singapore offers luxury hotels, delectable cuisine and great shopping! The island nation of the Republic of Singapore lies one degree north of the Equator in Southern Asia. The country includes the island of Singapore and 58 or so smaller islands. Because of its efficient and determined government, Singapore has become a flourishing country that excels in trade and tourism and is a model to developing nations. The capital city, also called Singapore, covers about a third of the area of the main island.

Located at the tip of the Malay Peninsula, Singapore's tropical climate welcomes both leisure and business travellers year round. The island republic's excellent infrastructure enables visitors to enjoy its many sites and attractions in a safe, clean and green environment. Award winning Changi Airport provides airlinks to major cities around the world. The train and subway systems are clean, fast and efficient. In addition, its state-of-the-art cruise terminal has established Singapore as one of the premier cruising centre of South East Asia and an exciting port of call on any Asian cruise itinerary.

In the city, there is no need for a car. Public transportation is excellent and walking is a good way to explore the city . All major attractions are also accessible by tour bus. Since the city is only 60 miles (100k) from the equator, the tropical temperatures do not vary much. Rainfall is fairly evenly distributed through the year. No matter when you choose to visit, warm weather will be abundantly available. The visitor is struck immediately by Singapore's abundance of parks, nature reserves, and lush, tropical greenery.

Singapore's progress over the past three decades has been remarkable, yet the island has not been overwhelmed by development. Visitors will discover a wealth of historical treasures from the past, in the beauty of older buildings, values and traditions that have survived in the face of profound social and geographical change.

Visit <http://www.visitsingapore.com/en/> for more information.



Day-to-day programme

Monday, 29th October

On this first day of the course you will get to know each other. You learn about the main issues in translational medicine and the translational scientist of the future. You will also start with your group assignment.

Time	Title & speakers
8:30-9:00	Coffee
9:00-9:15	Welcome Address Speaker: Salvatore Albani
9:15 -10:00	Introduction to the week and Ice breaker Facilitators: Scott Compton and Irene Lee
10:00-11:00	Mapping Translational Medicine: Introduction to TM Facilitator: Salvatore Albani Abstract In this session, the objectives of the course and concepts of translational medicine will be introduced and defined, also by leveraging on personal experience. Objectives <ol style="list-style-type: none">1. Define the field of translational medicine2. Analyse the components involved3. Discuss the challenges of translational medicine
11:00-12:30	Keynote encounter with Professor Soo Khee Chee - "Overcoming the research valley of Death" Abstract The research valley of death has been a real concern not just for individual researchers but for governments, universities at medical institutions funding biomedical research. The basic challenge is that researchers, clinicians, pharma and funders have different priorities and agenda. For research to be relevant and to be supported, it needs to be aligned with clinical needs and questions. Suggestions and avenues will be discussed as to how we can overcome what is often the misalignment we see in the various partners in the research continuum. Learning Objectives <ol style="list-style-type: none">1) Describe an idea / discovery and how to involve partners in the implementation Preparation <ol style="list-style-type: none">1) Surviving Valley of Death, Catherine Kolf, March 2014, John Hopkin Medicine2) How to bridge the valley of Death. Science Business, March 20133) The Innovation Challenge and the valley of Death CPI. 18 May 2016
12:30-13:30	Group Lunch

13:30-14:30	<p>"Speaking other people's language - scientist to people & academician to pharma" Speaker: Gianfranco Grompone</p> <p>Abstract: Communication to non-scientists, i.e. attorneys, journalists, potential investors, industry partners, is a key step in Translational Medicine (TM). Very often, when new data and discoveries show significant scientific relevance to fulfill unmet medical needs, either at the in vitro or preclinical level, exploring and confirming their translational potential by requesting non-scientists' opinion and often actions, is crucial. This communication process requires stepping out from the lab and its comfort zone to a new environment defined by non-scientific criteria, namely market potential, patentability, social and economic impact, industrial reproducibility, among others. Mastering communication is then crucial in this process. In this session, we will explore tools and tips to develop specific skills and assets which might help TM scientists in their careers. We will focus on 2 concrete case examples which will support the relevance of speaking others people's language: 1) moving from Academia to Industry and 2) bringing science to a large public audience in a radio broadcasting context. We will navigate the delicate balance between accurately describing the results to non-experts without "betraying" the science behind the data. Communicating to non-peers is a great opportunity for a translational scientist to "unlearn", to embrace adaptive challenges, to generate novel insights and to explore how to alleviate stress and anxiety during the whole exercise by stimulating empathy and facilitating multi-disciplinary and multi-cultural collaboration. But most importantly, this process should allow scientists and non-scientists working together and have fun.</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Reflect on the concept of vulnerability when stepping out of their comfort zone. 2. Translate their work to non-peers, large public and non-expert stakeholders for a specific purpose. 3. Evaluate, create and define their own communication style. 4. Provoke and maintain curiosity in the audience by engaging creativity. <p>Preparation</p> <ol style="list-style-type: none"> 1. Look for information about the mythological Tower of Babel in Babylonia. <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. Explain your research topic to your grandmother/grandfather, or to a 5 year-old child. 2. Make a list of the scientific terms and phrasings which are part of your day-to-day life. 3. Look for clinical studies and/or scientific articles press releases in the media.
14:30-15:30	<p>Journey of a Translational Scientist Speaker: Yeo Joo Guan</p> <p>Abstract: At the centre of Translational Medicine (TM) is the Translational Scientist whose critical role involves the continuum of activities from the conception of an idea to clinical testing for the ultimate goal of improving health and clinical outcome in diseases. This session will involve the sharing of experience from an early career Translational Scientist, both personal and those learnt from others, with the objective of closing the chasm across the valley of death for TM. Diverse issues such as mentorship, training needs, potential pitfalls, and work-life balance will be shared in the form of story-telling.</p> <p>Learning objectives: By the end of this session, participants will be able to: Reflect and identify personal pitfalls that may hinder their success to become a successful Translational Scientist.</p>
15:30-15:45	BREAK

15:45-16:45	<p>Value based healthcare Speaker: Yvonne Lee</p> <p>Abstract: Health systems globally have been struggling with rising costs of health services due to increasing aging population, healthcare needs and rising chronic diseases. Value-based healthcare is a framework for redesigning health care systems with the goal of value for patients. It is a way to ensure optimal use of resources that provides patients most value rather than cost containment. In this session, we will learn about the value of health and how to battle cost while improving quality care.</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Describe the concepts of value-based healthcare 2. Understand value-based reimbursement 3. Identify changes required to facilitate adoption of value-based healthcare, shifting from volume to value <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. Do you engage your patients/caregivers in making healthcare decisions? 2. Who are the stakeholders in a value-based healthcare system? 3. How can we drive efficiency in the current healthcare system?
16:45-18:15	<p>Unfolding case study I: Magic Bullet This case study will be discussed in small groups</p>
18:30	Gather at main lobby for transport to opening dinner
19:00	Opening Dinner@ Clifford Pier, The Fullerton Bay Hotel, 80 Collyer Quay, Singapore 049326

Day-to-day program

Tuesday, 30th October

Today you will learn to appreciate the difficulties of patenting, the roles of industry and academia in drug development and contemplate the challenges and opportunities of public private partnerships. You will also start your personal mentoring groups

Time	Title & speakers
8:30-9:00	Coffee
9:00-9:15	Day introduction Facilitators: Scott Compton and Irene Lee
9.15-10.15	<p>Concept of Druggability: Challenges and Opportunities When is the technology right for translational development? Presenter: Salvatore Albani</p> <p>Abstract: This encounter will distill from the keynote encounters of the previous day the common elements related to identifying, nurturing and developing an idea. The content will evolve from self-biographic to more analytical and objective. Specifically, the concept of what makes a discovery attractive for translational developments, what it takes, with whom one associates, what objective parameters are considered by the various stakeholders will be defined.</p>
10:15-10:30	BREAK
10:30-12:00	<p>Intellectual Property Speakers: Cheryl McCaffery and Wainwright Fishburn</p> <p>Abstract: In a life sciences start-up, Intellectual Property (IP) is one of the key pillars that support the fledgling company and contribute to its value. There are different kinds of IP that provide different kinds of protection and allow the ‘owner’ to exert certain rights against unlicensed users. In this session, we will consider IP broadly, and examine how legal rights are used to protect IP in a life sciences start-up company.</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Identify the different kinds of Intellectual Property (IP) and distinguish between IP and IP rights 2. Describe what is necessary for a proposed ‘invention’ to be patentable 3. Distinguish between an inventor and an author 4. Determine how to adequately protect inventions in a life sciences’ start-up 5. Understand how IP rights can be used to provide legal protection <p>Prior Reading</p> <ol style="list-style-type: none"> 1. Paper: “https://www.cooleygo.com/should-you-invest-in-patent-protection/” 2. Slides setting out Case Studies that identify different business scenarios <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. What kind of protection would I want for the product that I want to make and commercialise? 2. How can I ensure that: <ol style="list-style-type: none"> a. I have the protection that investors see as necessary? b. I have the breadth of protection required (<i>comprehensive</i> protection, which could also include TM, copyright)? c. My IP is positioned to facilitate future protection?
12:00-13:00	Group Lunch

13:00-14:00	<p>Leadership Speaker: Ian Curran</p> <p>Abstract: Prof Curran will explore the key characteristics and challenges of leading transformational change. Focusing on the insights and behaviors of effective disruptive innovators, he will describe the key capabilities and responsibilities of a transformational leader.</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Describe the key characteristics of a transformational leader 2. Identify the challenges transformational leaders face <p>Preparation Book: An Innovator's Prescription by Clayton Christensen</p> <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. Are you a transactional or transformational leader? 2. What are the barriers to disruptive innovation?
14:00-14:45	<p>From Idea to Lead Speaker: David Epstein</p> <p>Abstract: The nature of medical needs, translating the medical need into a biological concept and lead.</p>
14:45-15:00	BREAK
15:00-16:00	<p>Starting a Company Speaker: Wainwright Fishburn</p> <p>Abstract: This talk explores the various factors when starting a company; such as the vast expanse between an idea and its delivery to patients and the market.</p>
16:00-17:00	<p>Funding Speaker: Steven Myint</p> <p>Abstract & Learning objectives: This session covers the basic aspects of raising funding for a startup and practical aspects of doing that in Singapore.</p> <p>Pre-Session Thought Questions for Participants Is venture capital the best way to raise funds for a start up?</p>

17:00-17:30 "How to successfully fail"
Speaker: Gianfranco Grompone

Abstract:

After starting with a personal reflection on "what is one of your main failures so far" students will work in groups and then share and discuss within the whole group. The main goal here is identifying actors, stakeholders and multidimensional objectives that are associated to the failure. We will use concrete examples to describe some of the actors in TM.

Then, we will introduce the concept of failure being crucial to progress and how to accept it by creating a safe environment, which alleviates stress and anxiety.

Finally, we will explore and illustrate the concept of "baby steps", since it is a good manner to change our mindset to celebrate small but significant progress, exactly like a baby who starts walking.

Learning objectives:

By the end of this session, participants will be able to:

1. Reflect on the concept of failure: what is failure and success in TM? They will explore individual and collective examples.
2. How to progress through failure: discussion on how to create an open environment in TM which safely accepts failure.
3. Reflect on the importance of "baby steps" in TM and provide insights to identify and celebrate them.

Pre-Session Thought Questions for Participants

1. Think about one of the main failures in your career so far.
2. Identify stakeholders and main consequences of this failure.
3. Reflect about the concept of success in TM.

Day-to-day program

Wednesday, 31st October

This day you will be stimulated to critically contemplate how to effectively navigate from bench to bedside together with patients. You will also be introduced to the powers of collaboration and will have an opportunity to speed-counsel with faculty.

Time	Title & speakers
8:30-9:00	Coffee
9:00-9:15	Day introduction Facilitators: Scott Compton and Irene Lee
9:15 -10:15	Unfolding Case Study II: Magic Bullet
10:15-10:30	BREAK
10:30-11:30	<p>The drug development process Speaker: Vicki Seyfert-Margolis</p> <p>Abstract: A critical component of translating ideas from the lab to the clinic is the design of a human clinical trial and post-market plan. The process for studying new interventions in humans and bringing them to market/clinic is complex and requires an understanding of the basic parameters surrounding clinical trial design, feasibility, execution, and regulatory and commercial considerations. This session will discuss considerations for the drug development product path using a case to illustrate the complexities and stakeholders that need to be considered when developing a new drug.</p> <p>Learning objectives: By the end of this session, participants will be able to: Identify core components of drug development and challenges associated with each of these core components.</p>
11:30-12:30	Principles of modern clinical development Speaker: Alberto Martini
12:30-13:30	GROUP LUNCH
13:30-15:00	<p>Speed Dating Participants will meet one-on-one with faculty on various topics of interest to participants</p> <p>“Speed dating” provides the opportunity for participants to have a series of one-on-one discussions with individual faculty for 15 minutes each. Topics are the participant’s choice. Please consult the faculty biographies at the end of this program prior to completing the signup sheet, which will be prominently displayed and made available from Monday.</p>

15:00-16:00	<p>Regulatory Aspects (General & Paediatrics)</p> <p>Speakers: Vicki Seyfert-Margolis and Nicola Ruperto</p> <p>Abstract:</p> <p>Translational medicine requires a thorough understanding of how regulatory agencies and considerations will impact the ability to move a product from concept to market and clinic. Pre-market considerations are an important and essential part of the regulatory process for drug approval. However, post-market activities are becoming increasingly important for establishing how an innovative product should be used in typical care settings, not necessarily reflected in traditional randomized controlled trials. These aspects of defining real world benefit and effectiveness in addition to efficacy are critical for maximizing a new drug's benefit once in the clinic. This session will discuss the latest developments in patient-focused drug development, real world evidence studies, and how these novel clinical trial designs are increasingly being used to support regulatory submissions, clinical guidelines and commercialization.</p> <p>The regulatory landscape for clinical trials in paediatrics is substantially changed thanks to legislative initiative first in the United States and then in the European Union allowing an easier access especially to innovative drugs. This session will discuss the regulatory requirements and provide key examples from the paediatric field.</p> <p>Learning objectives:</p> <p>By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Begin to think through study design considerations for real world evidence trials 2. Describe the difference in regulatory landscape in North America and Europe 3. Prepare a Paediatric Investigation Plan (PIP) or a Paediatric Study Plan (PSP)
16:00-16:15	BREAK
16:15-17:15	<p>International Networks</p> <p>Speakers: Alberto Martini</p>
17:15-18:15	<p>Peculiarities of Drug Development in Paediatrics</p> <p>Speaker: Nicola Ruperto</p> <p>Abstract:</p> <p>Implementing clinical trials of investigational medicinal products (CTIMPs) in children is not an easy task for several reasons such as difficulty to recruit in a reasonable amount of time a sufficient sample of children, lack of childhood validated primary outcome, lack of dedicated infrastructure and funding, lack of interest from pharmaceutical companies because of the small market, etc.</p> <p>This session will discuss the peculiarities of drug development in paediatrics starting from hypothesis generation to trial implementation.</p> <p>Learning objectives:</p> <ol style="list-style-type: none"> 1. Understand what is needed to develop a program for drug development in paediatrics 2. Prepare a protocol and the related documentation
18:15-19:15	<p>Keynote encounter with Professor Freddy Boey</p> <p>Freddy will share his personal journey in commercializing several of his biomedical device companies as an academician, and the lessons he has learnt in the process. He will also discuss the problems and opportunities of start-ups in the Singapore Innovation ecosystem today and what he is doing in NUS to facilitate the innovation process.</p>
18:45	Interactive Q&A over wine & cheese - @ Boaters Bar (on site)

Thursday, 1st November

Learn how to balance gender and ethnicity and learn how to effectively work as a team and have true impact

Time	Title & speakers
8:30-9:00	Coffee
9:00-9:15	Day introduction Facilitators: Scott Compton and Irene Lee
9:15-10:15	Mentoring Session I Participants will address their own dilemmas in a small group setting as facilitated by expert faculty.
10:15-11:00	<p>Artificial Intelligence in Medicine Speaker: David Matchar</p> <p>Abstract: The big data revolution has led to artificial intelligence (AI) and machine learning being increasingly applied in biomedical research and applications. Some examples of these include predictive analytics using electronic healthcare records, patient monitoring and drug discovery. However, with such opportunities, concerns are being raised about the reliability of such tools and their impact on providers and recipients of healthcare. This session will discuss how the premise of AI can be translated into tangible benefits for patients, and when they may not.</p> <p>Learning objectives:</p> <ol style="list-style-type: none"> 1. Describe the opportunities to apply AI in medicine. 2. Identify challenges associated with translating the promise of AI. <p>Preparation:</p> <ol style="list-style-type: none"> 1. Fogel AL, Kvedar JC. Artificial intelligence powers medicine. NPJ Digital Medicine. 2018;1(5) 2. Stead WW. Clinical implications and challenges of artificial intelligence and deep learning. JAMA. 2018;320(11):1107-8. 3. National Academies of Sciences E, and Medicine. Artificial intelligence and machine learning to accelerate Translational Research: Proceedings of a Workshop - in Brief. Washington, DC: The National Academies Press; 2018 <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. How is AI currently being used in practice? 2. Can you identify some challenges in real-world implementation?
11:00-12:00	<p>Gender & Ethnicity Equipoise in Translational Medicine (and in life) Facilitators: Joanne Ngeow, Valerie Chew, Manpreet KS, Ann-Marie Chacko</p> <p>Abstract: Women and ethnic minorities worldwide encounter challenges in advancing in their careers in translational medicine. Compared to conventional counterparts, these underrepresented groups frequently experience lower salaries, limited training opportunities, delayed promotions, fewer research funding opportunities, and underrepresentation in senior or leadership positions. Gender and ethnicity bias remain contemporary challenges that have unique implications for progress in translational medicine. This session aims to share experiences, views, and opinions about these challenges and to engage the audience to brainstorm strategic solutions to overcome such challenges.</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Understand the challenges in gender & ethnicity inequality in translational medicine. 2. Strategize solutions to address the gaps in realizing gender and ethnic equality.

	<p>Preparation</p> <ol style="list-style-type: none"> 1. http://blogs.nature.com/naturejobs/2018/04/09/gender-inequality-in-the-sciences-why-is-it-still-with-us/ 2. https://www.elsevier.com/_data/assets/pdf_file/0008/265661/ElsevierGenderReport_final_for-web.pdf 3. http://www.pewsocialtrends.org/2018/01/09/blacks-in-stem-jobs-are-especially-concerned-about-diversity-and-discrimination-in-the-workplace/ <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. Do you face inequality in your career based on gender or ethnicity? 2. What suggestions do you have on how to overcome challenges associated with gender inequality?
12:00-13:00	Group Lunch
13:00-14:00	<p>Building a paediatric research academic enterprise - experience from two worlds Speakers: Alberto Martini and Ng Kee Chong</p> <p>Abstract: KK Women's & Children's Hospital is the largest tertiary centre for paediatrics in Singapore. It is part of the SingHealth Academic Medicine Cluster - which of the 3 public health care clusters in Singapore serves up to 50% of the Singapore population. The SingHealth Duke-NUS Academic Clinical Program (ACP) for paediatrics is the initiative under SingHealth Duke-NUS to integrate and drive paediatric research and education. We share our academic journey to develop and build a sustainable paediatric academic research enterprise for SingHealth & Singapore, regionally and internationally - leveraging on Singapore's exemplary cosmopolitan East-West connectivity. This session will discuss the challenges and possible solutions to ensure our journey continues on its forward trajectory to establish ourselves as a key academic node in the international consortium for paediatric academic research.</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Understand how Singhealth is building its academic research enterprise for clinical care for paediatrics 2. Appreciate the challenges involved and suggest solutions and strategies moving forward to mitigate these challenges <p>Preparation Challenges Facing the National Clinical Research Enterprise. JAMA 2003;289(10):1278-1287</p> <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. What are the barriers and challenges of doing paediatric academic research in Singapore? 2. How can we mitigate and overcome these barriers and challenges?
14:00-15:00	<p>Team Skills Facilitators: Scott Compton and Irene Lee</p>
15:00-15:15	BREAK
15:15-17:15	<p>Presentation workshop Participants will work in small groups to experience direct feedback on presentation skills.</p>

Day-to-day program

Friday, 2nd November

Learn how to interface with Pharma and about multi-party collaborations.

Time	Title & speakers
8:30-9:00	Coffee
9:00-9:15	Day introduction Facilitators: Scott Compton and Irene Lee
9:15 -10:15	<p>High dimensionality and biomarkers in Translational Discovery Speaker: Florent Ginhoux</p> <p>Abstract: Dendritic cells (DCs), monocytes and macrophages play crucial and distinct roles in tissue homeostasis and immunity, but also contribute to a broad spectrum of pathologies and are thus attractive therapeutic targets. Potential intervention strategies aiming at manipulation of these cells will require in-depth insights of their origins and the mechanisms that govern their homeostasis. The focus of the laboratory is to understand the ontogeny of DCs, monocytes and macrophages, their differentiation pathways and how their unique ontogeny dictates their immune functions. Our approach encompasses the integration of high dimensional platforms such as RNAseq, single cell transcriptome analysis using microfluidic RNA sequencing and deep immunophenotypic assessment using state of the art 18 parameters flow cytometry or Cytometry by Time-Of-Flight mass spectrometry (CyTOF). Such high density molecular profiling at the single level and at unprecedented dimensionality and complexity will provide new insights in the biology of DC, monocyte and macrophage cell populations. Defining macrophage and DC populations on the criteria of their origin may aid our understanding of their discrete roles in tissue immunity and homeostasis, as ontogeny of DC and macrophage subsets likely underlie their functional specializations.</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none">1. Understand new high dimensional approaches to characterize immune cells2. Understand the heterogeneity of the myeloid cell system
10:15-11:00	Mentoring Session II - part I

11:00-12:00	<p>"20 years as a Clinician-Scientist and Innvator in Singapore: Pearls, Set-backs and Lessons" Speaker: Wong Tien Yin</p> <p>Abstract: The process of scientific discovery to clinical application is known as translational medicine, and can be defined as a focused, purposeful method to apply knowledge gained from scientific research to clinical practice. Translational medicine involves the pursuit of the patient's health as the ultimate outcome. Unfortunately, translational medicine and the underlying innovation that drives it does not occur by chance and is in fact rare in normal healthcare settings. Translational medicine is long, tortuous, difficult and many scientific discoveries do not actually get to the patient or impact on care.</p> <p>Clinician-scientists (CS) and clinician innovators (CI) are the foundations for translational medicine. CS/CI are physicians who understand both science/innovation and medicine, who are "connectors" between scientists, engineers and doctors, and who can speak multiple "languages". Singapore has identified the development and support of CS/CI as being critical for the growth and success of the multi-billion dollar investment in biomedical research and for the transformation of our healthcare. Over the past two decades, there have been substantial improvement in the support and career development of CS/CI in Singapore, and a vibrant, exciting ecosystem has evolved. However, much more needs to be done to grow and sustain the pipeline of young CS, who must be identified, trained, mentored and supported throughout a long career of uncertainty and new challenges in the healthcare system</p> <p>Learning objectives: By the end of this session, participants will be able to:</p> <ol style="list-style-type: none"> 1. Understand the concept and importance of clinician-scientists in the healthcare system 2. Understand the challenges of being a clinician scientist and innovator <p>Preparation</p> <ol style="list-style-type: none"> 1. Papers (attached) <p>Pre-Session Thought Questions for Participants</p> <ol style="list-style-type: none"> 1. Why do you want to be CS/CI? What drives you? 2. Who are your role models? 3. What does success look like?
12:00-13:00	Group Lunch
13:00-14:00	<p>GUSTO/S-PRESTO Speakers: Kenneth Kwek and Jerry Chan</p> <p>Abstract: GUSTO was incepted in 2007 as a collaborative effort with the two major public maternity hospitals in Singapore, National University Health System (NUHS) and the KK Women's & Children's Hospital (KKH). GUSTO is the region's leading longitudinal birth cohort study that combines multi-ethnic Asian participants with detailed records of ante and post-natal data and biological specimens from both mother and child. S-PRESTO is an additional cohort which also permits a critically important opportunity to replicate and extend our findings from GUSTO, including associations between specific epigenetic 'marks' and developmental outcomes in the offspring.</p>
14:00-15:00	Mentoring Session II - part II
15:00-15:15	BREAK
15:15-16:15	<p>Medtech and interfacing with Pharma Speaker: Lin Xiang Liang</p>
16:15-18.15	Unfolding Case Study III: Magic Bullet
19:00	Closing Dinner: Barbecue at Cape Royale, Sentosa Cove

Faculty biographies



About the speakers and moderators



Salvatore Albani, MD, PhD

Professor Salvatore Albani, is a Professor at Duke-NUS Graduate Medical School Singapore and Director of the Translational Immunology Institute. Before joining Duke-NUS, Dr. Albani served as director of the Translational Medicine Unit at the Clinical Investigation Institute at the University of California, San Diego, where he also was professor of Medicine and Paediatrics. His fundamental research interest is in understanding human immunity and contributing the knowledge to therapeutic and diagnostic advancements. He has developed several innovative approaches in the area of induction and maintenance of immune tolerance in humans, being responsible for the whole translational process from idea to conclusion of Phase II clinical trial in autoimmune inflammatory diseases, which have a large impact on society and individuals. This translational research itinerary has been the original backbone of his career, as witnessed by a rich publication trail (among others Nature Medicine, Lancet, JCI, PNAS, Nature Rheumatology, A&R, ARD, etc) and by approximately 100 patents, disclosures and applications. In his role as an educator, it has been his privilege to mentor many talented individuals, and to provide the right challenges and learning opportunities to help them grow and advance. He seeks to expand this further by helping to create and nurture the next generation of translational scientists.



Freddy Boey, PhD

Prof Freddy Boey is Senior Vice President (Graduate Education & Research Translation) of National University of Singapore (NUS). A pioneer in the use of functional biomaterials for medical devices, Prof Boey has developed 100 over patents and founded several companies to commercialize his cardiovascular, ocular and surgical implants. His customizable hernia mesh is the first such surgical mesh approved for sale by the US FDA and his most recent company, Peregrine, has created a nano-based drug delivery system to treat Glaucoma which has been successfully deployed in human trials.

Prof Boey holds key appointments on the boards of the Health Science Authority Singapore and several nationally-funded research centres, including the Singapore Rail Academy Board and the Government Technology Agency Planning Committee.

He has received several prestigious awards, including the Imperial College London Fellowship Award, the 2013 Singapore President's Science and Technology Medal and he is also a recipient of two National Day Awards – the Public Administration medals (Gold and Silver) – from the Singapore government.



Jerry Chan, MB, BCh, PhD

Dr. Chan read Medicine at Trinity College Dublin, graduating with Honours and first in his class in 1997. He began his postgraduate residency in England, and completed the rest of his OBGYN training in Singapore in 2009, followed by a fellowship in Reproductive Endocrinology and Infertility in 2011. He is a senior Clinician Scientist and a practising accredited specialist in Assisted Reproductive Technique in KK Women's and Children's Hospital. He is a Fellow of the Royal College of Obstetrician and Gynaecologist in London. Dr. Chan completed a PhD in intrauterine stem cell therapies at Imperial College London before founding the Experimental Fetal Medicine Group in Singapore.

Dr. Chan's research interest spans a bench to bedside continuum, with interests in developing novel fetal molecular therapies in the form of gene transfer and stem cell transplantation, and also in endometriosis and infertility. He is the Site PI for the Singapore Preconception Study of Long-Term Maternal and Child Outcomes (S-PRESTO) pre-conceptual birth cohort study, which investigates how the pre-conceptual period affects the development of the child. As an executive board member and Co-PI of the GUSTO birth cohort consortium, Dr. Chan has published 17 papers on how perinatal influences can affect both maternal and child-health. These are among the over 180 papers which he has published, including prestigious journals such as Nature, Cell, Science, Nature Medicine, Immunity, PNAS, Blood, Stem Cells, Human Reproduction and Fertility and Sterility among others.

About the speakers and moderators



Valerie Chew, PhD

Dr. Chew graduated with a PhD in immunology from Agency of Science, Technology and Research (A*STAR) Graduate Scholarship program in Singapore. Dr Chew then started her postdoctoral training in Singapore Immunology Network (SIgN), A*STAR focusing on tumor immunology. Since 2015, Dr Chew joined Translational Immunology Institute (TII), SingHealth Duke-NUS to advance her professional career in tumor immunology research. She also holds assistant professor position with Duke-NUS Medical School.

Dr Chew is the key researcher leading the project on understanding the impact of tumor immune microenvironment on clinical outcome in patients with hepatocellular carcinoma (HCC). Her work has gained recognition with multiple grant awards and high impact journals including Gut, Journal of the National Cancer Institute, Nature Genetics, and Journal of Hepatology.



Pierce Chow, MMS MMed, FAMS,

Prof Pierce Chow is senior consultant and Co-Director (Surgical) at the Comprehensive Liver Cancer Clinic at the National Cancer Centre Singapore and Senior Consultant Surgeon at the Singapore General Hospital. He is concurrently Professor and Course Director at Duke-NUS Medical School Singapore. Prof Chow was the Chapter of Surgeon's Gold Medalist at the conjoint Royal College of Surgeons of Edinburgh/M.Med (Surgery) examination in 1994 and subsequently completed a clinical fellowship in Liver Transplantation at the Queensland Liver Transplant Service with Professor Russell Strong. In 1995, he was recipient of the Young Surgeon's Award of the Academy of Medicine Singapore.

In addition to managing a busy HPB surgical oncology service, Prof Chow has researched extensively on hepatocellular carcinoma (HCC). He leads collaborative research on the genomic heterogeneity of HCC and applications in precision medicine. He co-founded the Asia-Pacific Hepatocellular Carcinoma Trials Group in 1997 and has been the protocol chair of 5 multi-national trials. In 2012 the National Medical Research Council Singapore conferred him the National Outstanding Clinician-Scientist Award for improving clinical outcomes of patients with his research on Liver Cancer.

In 2016 Prof Chow was awarded the NMRC Translational-Clinical Research Grant for the National Flagship Program in Liver Cancer and in 2017 he received funding from BMRC for the multi-institutional PuRPOSE Program to develop a patient-specific diagnostic and predictive platform to improve treatment of liver cancer.



Scott Compton, PhD

Associate Professor Scott Compton is the Associate Dean for Quality Assurance & Accreditation at the Duke-NUS Medical School. He earned his PhD from Wayne State University (USA) in Educational Evaluation & Research, where he was mentored by one of the world's leading educational statisticians, Shlomo Sawilowsky, PhD, Professor & Distinguished Faculty Fellow of Educational Statistics. In his career, Dr. Compton has focused his research efforts on out-of-hospital cardiac arrest, palliative emergency medicine, and on medical education. As a scientist, he has published approximately 60 peer-reviewed publications, secured over \$1.5 million (USD) in research grants, and presented his research work in over 100 international scientific presentations. Additionally, he has served on multiple medical school accreditation site reviews, and as an expert reviewer for the National Institutes of Health (USA), the Ministry of Education (Singapore), and as a member of the Editorial Boards of three academic journals. As a teacher, he has received teaching awards at every level of the educational spectrum, from elementary schools through graduate schools, and has mentored over 100 Emergency Medicine residents, medical students, faculty members, and post-doctoral fellows

About the speakers and moderators



Ann-Marie Chacko, PhD

As Assistant Professor in the Duke-NUS Programme in Cancer and Stem Cell Biology, and Head of the Duke-NUS Laboratory for Translational and Molecular Imaging (LTMI), Dr. Ann-Marie Chacko's research program is dedicated to the preclinical characterization of molecularly-targeted systems as diagnostics and/or therapeutics for translational applications. These systems include small molecules, peptides, proteins, and nanomaterials. Using advanced state-of-the-art small animal imaging platforms, a major thrust of LTMI is to develop in vivo imaging approaches (PET, SPECT, CT, fluorescence, etc) to noninvasively assess biologic, prognostic and therapeutic biomarkers for cancer, brain and immune function, and infectious diseases, especially with an Asian disease-centric focus. LTMI also serves as a core facility for Duke-NUS researchers, and as a hub for emerging imaging research and technology development accessible to the broader research community across Singapore, including other academic institutes and industry groups.

Dr. Chacko has more than 18 years of experience in translational imaging research. She is the author of 27 scientific publications including original research and review articles, with an additional 20+ peer-reviewed publications in conference proceedings. She is committed to educating a new generation of translational scientists through mentorship of students. She also currently mentors clinician-scientists from SGH Medical Oncology, Radiological Sciences, and Infectious Disease Departments. Dr. Chacko has experience teaching undergraduate and graduate level coursework, as well as residency fellows on subjects ranging from Organic and General Chemistry, Biochemistry Metabolism to CNS Drug Delivery and Nuclear and Optical Molecular Imaging. She will continue to contribute to the educational and research career development of junior scientists whenever possible.



Patrick Casey, PhD

Patrick J. Casey, Professor and Senior Vice Dean of Research, joined Duke-NUS in 2005 from Duke University. as inaugural faculty and head of research. He joined Duke in 1990 as an Assistant Professor, was awarded tenure in 1995, promoted to Professor in 1999, and named James B. Duke Professor of Pharmacology and Cancer Biology in 2002. His laboratory studies signaling controlled by GTP-binding regulatory proteins (G proteins), with a particular emphasis on signaling processes involved in tumorigenesis and tumor progression. While primarily engaged in administration and leadership at Duke-NUS, he continues to pursue his passion in research and mentoring and has trained over 50 PhD students and postdoctoral and clinical fellows in his career.



Derrick Chan, BMBS, BMedSci, MRCPCH, MCI, CSCN, FAMS

Associate Professor Derrick Chan received his medical degree from Nottingham University, UK., and a Masters in Clinical Investigation in NUS. He trained in Great Ormond Street Hospital and the Royal Children's Hospital in Melbourne in Paediatric Neurology and EEG and a Paediatric Epilepsy Fellowship at the Hospital for Sick Children in Toronto, Canada. He has been awarded 3 A*STAR Bio-Engineering Programme grants for medical technology and has developed devices for computer vision-based seizure detection and dry EEG electrodes. He is the Vice Chair Research of SingHealth Duke-NUS Paediatrics Academic Clinical Programme and also the Programme Director for the Clinician-Innovator Development Programme (CINDP), which helps to develop talent streams of Clinician Innovators.

About the speakers and moderators



Ian Curran, BSc, AKC, MBBS, FRC, Pg Dip Med Ed, FFPMRCA, FAcadMed, FSSH

Professor Curran is the Vice Dean, Education, Duke-NUS Medical School. He was the Assistant Director of Education and Professional Standards at the General Medical Council (GMC) the UK medical professional regulator. He led education policy and standards development. He was responsible for the quality assurance of all postgraduate medical education across the UK affecting 55,000 doctors in training. Ian graduated in medicine from King's College London (KCL) in 1992. He explored an academic career as a histopathologist before training as an anaesthetist at St Bartholomew's and the Royal London Hospitals. He was appointed Clinical Lecturer in Anaesthesia and Pain Medicine at Barts where in the late 1990's he developed pioneering work in simulation, faculty development and medical education. After a year as Pain Fellow at St Thomas' Hospital he was appointed consultant in anaesthesia at St Bartholomew's Hospital with an interest in chronic pain management. He holds 7 professional fellowships including the Fellowship of the Royal College of Anaesthetist, the Faculty of Pain Medicine, the Royal College of Physicians of Edinburgh and the Academy of Medical Educators.

He was appointed Associate Director of Simulation and Associate Director of Medical Education in 2004 and Honorary Senior Lecturer at Barts Medical School in 2007 where he was responsible for Medical Finals for 8 years. In 2008 he was appointed Associate Dean for Innovation for the London Deanery and developed London's £36million Simulation and Technology-enhanced Learning Initiative which won the BMJ Award for Excellence in Healthcare in 2011. In 2010 he was appointed Dean of Educational Excellence for London. In 2014 he was appointed full Professor of Innovation and Excellence in Healthcare Education at Queen Mary University of London. In 2016 he was appointed visiting Professor at the King's Learning Institute, King's College London. He has also been a clinical adviser to the UK Department of Health, NHS England and Health Education England and has given a wide range of national and international keynotes, visiting lecturers, fellowships and professorships. He has also advised the European Commission and several national and international governments. He has been awarded the President's Medal by the Royal College of Psychiatrists in 2018 for promoting awareness of mental health in medical education in the UK.



David Epstein, PhD

Dr. David Epstein joined the faculty and leadership at Duke-NUS Medical School in 2013, where he is Vice Dean of Innovation & Entrepreneurship. David is the Director of Duke-NUS's Centre for Technology & Development (CTeD), aimed to advance Duke-NUS intellectual property. David's work within CTeD focuses on mentoring entrepreneurs and developing models of value creation for Singapore. In 2014, he was named the founding Director of Singapore's National Health Innovation Centre (NHIC) which provides the clinical research sector long-term financial support and strategic guidance related to innovation and commercialization. Dr. Epstein is Associate Professor in the Cancer & Stem Cell Biology Program, where his NMRC-funded research focuses on alternative splicing in cancer.

Over the past 20 years David has served as a biopharma discovery and translational science leader and executive. David has successfully led large and small R&D teams in academic, virtual, start-up, mid-size and global large-pharma settings. David's teams have progressed seven novel agents in to clinical development in diverse disease areas including cardiovascular, retinal degeneration and oncology. Prior to joining Duke-NUS, David was the Chief Scientific Officer at OSI Pharmaceuticals. Dr. Epstein is founder of ASET Therapeutics, a biotechnology start-up located in New York and in Basel, Switzerland, which is focused on targeting non-canonical mutant oncogenes. He was a founder of Archemix Corp., an aptamer therapeutics company with two agents in late-stage clinical development. He earned his Ph.D. in Biochemistry at Brandeis University with Robert Abeles, and completed his post-doctoral fellowship establishing a joint project between the labs of Steven Benkovic (Penn State) and Peter Wright at The Scripps Research Institute in La Jolla.

About the speakers and moderators



Wainwright Fishburn, JD

Wainwright Fishburn, Jr. is a prominent venture capital attorney and global chair of the firm's Digital Health group. As a recognized life science and digital health thought-leader, Wain is a frequent speaker at programs addressing industry issues, including at the International CES Digital Health Summit, USC's Body Computing Conference, Impact Forum and the Samsung: Health + Tech Conference. Wain has also served as the Chair of the BIO Digital Health Forum at the BIO International Convention from 2014 – 2019.

As both a founder and counsel, Wain has worked with venture capital-backed companies across a variety of fields. For example, in the field of genomic medicine, he works with groups that develop and deploy high performance technology for genomic research and medicine. He is also Vice-Chairman of the board of the Critical Path Institute, a public-private partnership created in part by the FDA, dedicated to integrating scientific advances into the development pathway. Mr. Fishburn has been widely recognized as a leading attorney in numerous publications, including among others, his recognition by The Daily Journal as one of California's top attorneys. He was named by Nature as instrumental to the success of San Diego as a life science cluster.

As a community leader, Wain is past Chairman of the Sanford Burnham Prebys Medical Discovery Institute, one of the nation's leading independent research institutes. He is a member of the Executive Committee of the board of the UCSD Moores Cancer Center where he is afforded a clinical perspective on the application of breakthroughs in genomic medicine and is assisting with the Center for Personalized Cancer Therapy. He is a founding director of both the Corporate Directors Forum and BIOCOM, representing more than 1100 members life science companies and is a member of its Executive Committee.

Wain is a co-founder of seven companies, two of which became public. He is a third-generation Arizonan and earned his B.A. from the University of Arizona where he serves on the Advisory Board for Tech Launch Arizona. He completed post-graduate work as a Senior Fellow at the Australian National University and received his JD degree from the University of California, Hastings College of the Law where he served as President of the Hastings Board of Governors.



Florent Ginhoux, PhD

Florent Ginhoux graduated in Biochemistry from the University Pierre et Marie CURIE, Paris VI and obtained a Masters degree in Advanced Studies in Immunology from the Pasteur Institute, Paris. He then started his PhD in the Immunology Team of GENETHON, Evry and obtained his PhD in 2004 from the University Pierre et Marie CURIE, Paris VI. As a postdoctoral fellow, Florent Ginhoux joined the Laboratory of Miriam Merad in the Mount Sinai School of Medicine (MSSM), New York where he studied the ontogeny and the homeostasis of cutaneous dendritic cell populations, with a strong focus on Langerhans cells.

In 2008, he became an Assistant Professor in the Department of Gene and Cell Medicine, MSSM and member of the Immunology Institute of MSSM. He joined the Singapore Immunology Network (SIgN), A*STAR in May 2009 as a Principal Investigator. He joined the EMBO Young Investigator (YIP) program in 2013 and is a Web of Science Highly Cited Researcher in 2016 and 2017. He is also an Adjunct Visiting Associate Professor in the Shanghai Immunology Institute, Jiao Tong University, in Shanghai, China since 2015. Both laboratories are focusing on the ontogeny and differentiation of macrophages and dendritic cells (DCs).

About the speakers and moderators



Gianfranco Grompone, PhD

Dr. Gianfranco Grompone is a senior scientist and team manager delivering high impact product solutions in a competitive global market by combining strong academic basic science background to industrial experience. Dr Grompone's research interests include: microbiome and probiotics, nutrition and health, functional foods, prebiotics and symbiotics, microbiome-driven products and innovation, personalized nutrition, translational medicine and biotechnology. To date, he has developed solid networks and public-private partnerships worldwide, with a special focus in Latin America. He has been involved in science & technology prospective policies and innovation strategies in Latin American countries as a consultant. He has recently developed a science popularization national radio broadcasting program in Uruguay, with a strong focus on microbiome related topics. He is a member of the Harvard Kennedy School Executive Education Alumni network.

Dr. Grompone got his agronomic engineer diploma at ENSAR (Ecole Nationale Supérieure Agronomique de Rennes, France) in 1999. After his PhD (1999-2002) at Pr. Dusko Ehrlich's lab (INRA Jouy en Josas, France) where he focused on the role of homologous recombination in the replication of the chromosome of *E. coli*, he worked as a postdoc (2002-2005) at Pr. Philippe Sansonetti's lab (Institut Pasteur, Paris, France), focusing on the early step of *Shigella flexneri* entry into intestinal epithelial cells. He then moved to Danone Research (Palaiseau, France) where he worked within the R&D Department for 10 years (2005-2015), focusing on the selection, functional characterization, preclinical validation and clinical development of new probiotic strains for the dairy division. From 2014 to 2016 he directed the microbiome program at Bioaster, a new public-private Technology Research Institute co-founded by Danone Research, Institut Mérieux, Sanofi Pasteur, CNRS, INSERM, CEA, Institut Pasteur and Lyonbiopôle. He was the head of the biobusiness and IP direction at National Institute of Agronomic Research in Uruguay from 2016 to 2018. Since May 2018, he joined Lesaffre International R&D Corporate team in Lille, France to work as a Discovery Nutrition and Health Science leader with high focus on microbiome driven new products and bioactive molecules screening.

More info here: <https://www.linkedin.com/pub/gianfranco-grompone/a/b00/90a>



Kenneth Kwek, MD

Professor Kenneth Kwek is the Chief Executive Officer of Singapore General Hospital (SGH), a member of Singapore Health Services (SingHealth). SGH was established in 1821, and is Singapore's largest acute tertiary hospital with 1,700 beds. SGH is a referral centre offering a comprehensive range of 36 clinical specialties on its campus. Every year, about 1 million Singaporeans benefit from advanced medical care delivered by its 800 specialists. As an academic healthcare institution and the bedrock of medical education, SGH plays a key role in nurturing healthcare professionals, and is committed to innovative translational and clinical research.

Prior to his appointment as CEO, SGH, Prof Kwek was CEO of KK Women's and Children's Hospital, Singapore's only hospital dedicated to women's and children's health. He is an obstetrician specializing in Maternal Fetal Medicine, with a clinical interest centered around care for high risk pregnancies, particularly preterm labour, cervical incompetence, pre-eclampsia as well as post partum hemorrhage. Prof Kwek is passionate about improving the quality of patient care and harnessing process re-engineering, innovation and technology to enhance the safety and reliability of clinical care. He is also focused on developing value-based care to ensure the sustainability of the healthcare system. In July 2017, Prof Kwek was concurrently appointed Deputy Group Chief Executive Officer (Organisational Transformation & Informatics), SingHealth.

About the speakers and moderators



Irene Lee Cheng Jie, PhD

Irene Lee received her undergraduate degree in Life Sciences from National University of Singapore. She then pursued PhD in biochemistry and cell biology, dissecting cytoskeletal signalling pathways underlying cell motility at Professor Thomas Leung's laboratory (Institute of Molecular and Cell Biology, Agency for Science and Technology Research, A*STAR). She then joined Professor Shirish Shenolikar's lab (Duke-NUS Medical School) as a research fellow, working extensively to characterize the underlying signal transduction involved in unfolded protein response, a homeostatic cascade activated to combat cellular stress. During this period, she had a growing interest in medical education and undertook a fellowship in medical education. Given her background as a basic scientist, she is primarily involved in the Year 1 preclinical curriculum and also serve as the course director for an undergraduate biomedical course, Premedical Module. Her primary work is geared towards the improvement of Year 1 courses and development of new educational programme using evidence-based practice of education philosophies.



Lim Xiang Liang, BSc

Xiangliang (XL) Lin is the Founder & President of Esco Healthcare, a division of Esco Group of Companies. Esco boasts its strength of multiple manufacturing sites across the globe. XL also designed and oversaw the engineering, manufacturing and validation of the company's first cGMP-compliant isolators, downflow booths, bioreactors, and clean air & containment technology. Esco transitioned from tools provider to on-site process development and with its developed technologies, Esco Aster was formed in 2018. Today, Esco Aster is a leading independent Contract Development and Manufacturing Organization (CDMO). XL Lin graduated with a degree in Bachelor of Sciences from University of Sydney.



Yvonne Lee, PhD, MPH

Yvonne holds a PhD in Medicine from University of New South Wales and Master of Public Health from Mount Sinai School of Medicine, New York. She is currently the regional lead of Asia Pacific health economic and market access at Terumo BCT focusing on medical device reimbursement and access. Her core competencies are development and application of health economic models, generate local real-world clinical evidence, quantify burden of disease, drive healthcare policy and patient access to medical technologies across Asia Pacific. Yvonne has more than 13 years of working experience across different type of organization including academia, government and pharmaceutical industry. She has established track record publications and worked in the following therapeutic areas; oncology, infectious disease, diabetes, cardiovascular, stroke, gastrointestinal endoscopy. She received further training in cancer epidemiology at International Agency for Research on Cancer (IARC), World Health Organization (WHO), patient centered care at US Patient-Centered Outcome Research Institute (PCORI) and is an alumni of Eureka 3rd International Certificate Program in Translational Medicine (2010). Yvonne believes in multi-stakeholder collaborations to deliver quality care and putting patients first in the treatment paradigm.

About the speakers and moderators

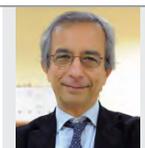


David Matchar, MD

David B. Matchar, MD, is the Inaugural Director of the Program in Health Services and Systems Research (HSSR), one of five Signature Research Programs within the Duke-NUS Medical School. Dr. Matchar is also a Professor of Medicine at Duke University in the United States. He received his AB in Statistics from Princeton University. After completing his MD degree and residency training he served as fellow in the Department of Internal Medicine at Duke University.

For over 35 years, Dr. Matchar has worked in clinical research, primarily related to stroke and other chronically disabling neurological disorders, as well as clinical and public policy analysis. He served as Director of the Duke Center for Clinical Health Policy Research and established the Duke Evidence-based Practice Center, which was responsible for analysis in support of coverage policy for the US Centers for Medicare and Medicaid Services, as well as guidelines for medical professional societies.

In 2008, Dr. Matchar moved to Singapore to set up HSSR, a research department which focuses on the challenges of an aging population, health economics, and simulation modeling to promote informed clinical and public health policy. In August 2009, Professor Matchar was awarded the prestigious STaR Investigator Award by the Singapore Ministry of Health's National Medical Research Council (NMRC) to establish a system modeling laboratory to evaluate clinical and public policy issues related to aging and disability in Singapore.



Alberto Martini, MD

Alberto Martini is Professor of Pediatrics at the University of Genoa and has been Director of Pediatria II Reumatologia (EULAR Centre of Excellence in Rheumatology 2008-18) and of the Department of Pediatrics of the G Gaslini Institute, Genoa, Italy. Since March 2016 he is the Scientific Director of the G Gaslini Institute in Genoa. (albertomartini@gaslini.org). Prof Martini is Chairman of the Pediatric Rheumatology International Trial Organization (PRINTO) and has been President of the Pediatric Rheumatology European Society (2010-16), Chairman of the EULAR Standing Committee on Pediatric Rheumatology (2013-16) and President of the Italian Council of Academic Professor of Pediatrics (2008-2012).

He is Co-Editor of *Clinical and Experimental Rheumatology* and *Pediatric Rheumatology* and member of the Editorial board of *Annals of Rheumatic Diseases*.

In 2016 he received the "Master Award" from the American College of Rheumatology and in 2018 the gold medal of the Pediatric Rheumatology European Society.

Prof Martini is author of more than 400 papers in peer reviewed journals related to paediatric rheumatic diseases.

About the speakers and moderator



Cheryl McCaffery

Ms McCaffery joined Duke-NUS Medical School in August 2014 as Deputy Director of the newly-created Centre for Technology and Development (CTeD). She now oversees a team of six people whose role it is to identify, direct the further development of, and determine and execute commercialisation strategies for inventions arising in the School. Prior to moving to Duke-NUS, she was Deputy Director of A*STAR's Industry Development Group in the Biomedical Sciences Institutes for seven years.

In a career spanning more than 25 years, Ms McCaffery has had extensive experience in research management, strategic I.P. management, collaborations and alliance management, start-up formation, strategic planning, business development and corporate governance. She has prosecuted dozens of patent applications through to grant, negotiated numerous large research/licensing deals with multinational companies, and been involved in establishing and licensing more than a dozen start-up companies. Ms McCaffery originally trained as a biochemist; she holds a BSc (Hons1) degree from the University of N.S.W. and spent 10 years doing bench research in neuroscience and cancer research before pursuing an MBA from Melbourne Business School and moving into the business side of biomedical science. She is also a registered Patent Attorney, a Certified Licensing Professional and a Graduate of the Australian Institute of Company Directors.



Steven Myint, MD, PhD

Professor Steven Myint is a physician with global experience in health and biomedical management. He is currently a Senior fellow to A*STAR, and consultant to its commercialization arm, ETPL. He is also Adjunct Professor at Duke-NUS in the Center for Technology, Enterprise and Development. In these capacities he is involved in the commercialization of biomedical and bio-engineering research. He is also Chairman of Inex Private Ltd. In Finland he is chairman of Plexpress Oy and Inc, a diagnostic technology company with a US subsidiary and non-executive director of Aplagon Oy and Primex Oy, both biotech companies. He was also founding partner of a Finnish Vigo accelerator, Ukko Partners. In addition, he is a partner in the Palo Alto based venture fund, Pharma Capital and a non-executive director of Lipid Genomics, a diagnostic company spun out of Johns Hopkins, now based in Boston. Until recently he was also executive chairman of Green Signal Bio, which he developed into one of India's largest vaccine manufacturers. He has held non-executive directorships with several organisations in the public and private sectors. He is a former Professor and Dean of Medicine & Health at the University of Surrey and Professor/Chairman of Microbiology & Immunology at the University of Leicester in the UK. He has been a biopharmaceutical senior and Board executive as global Medical Director at GlaxoSmithKline and Senior Vice-President for R&D/Chief Medical Officer at BTG International. He has been instrumental in over 50 successful IND and 12 NDA submissions. He was an NHS consultant in UK for over 20 years and is also a former Senior Independent Director, then chairman, of a hospital in the NHS and Board Member of Care International. He also has experience in the IT sector as executive chairman of Onmedica Group Ltd and Onmedica India Private Ltd (a health/IT and marketing organization). He has also been Chief Executive of the European Federation of Neurological Associations, consultant to several organisations in the medical and financial worlds and member of several national and international advisory boards. He has authored over 120 peer reviewed publications and 6 books. He was also Editor-in-Chief of the Journal of Infection for 5 years. He is a Fellow or Member of several societies, including the Institute of Knowledge Transfer, the Royal College of Physicians and the Royal Society of Medicine. After his own first university spinout in 1995, he has been involved in the development of over 30 SME's in life sciences and created over \$1billion value for shareholders.

About the speakers and moderators



Ng Kee Chong, MD

Assoc Prof Ng Kee Chong graduated from the Faculty of Medicine, National University of Singapore in 1989. He pursued specialty training in Paediatrics and joined KK Women's and Children's Hospital (KKH) in 1997. He was awarded a Ministry of Health (Singapore) fellowship in post-graduate training (1998-1999) at the Hospital for Sick Children in Ontario, in Paediatric Emergency Medicine. He earned his Master in Business in Business Administration in 2015 from Singapore Management University.

Assoc Prof Ng was Chairman of the Emergency Preparedness Committee at KK Women's and Children's Hospital (KKH) from 1997 to 2016, leading the hospital's disaster response following the Indian Ocean tsunami in 2004.

He was Head of the Children's Emergency at KKH from 2005 to 2016, and co-chair of the Ministry of Health Toxicology Clinical Practice Guidelines Workgroup from 2009 to 2011. With the setting up of the Paediatrics Singhealth Academic Clinical Programme (PAEDS ACP), Assoc Prof Ng was appointed as Chairman from 2011. Assoc Prof Ng was also appointed Chairman, Division of Medicine, KKH, from 2012-2017, and Campus Director of KKH Medical Innovation & Care Transformation, in 2015. He was appointed as Chairman Medical Board 1 May 2017.

Assoc Prof Ng is a member of the Ministry of Health National Trauma Committee, the National Resuscitation Council (NRC) and Chairman of the Paediatric Life Support Subcommittee, NRC. He was appointed to the pro tem committee of the Singapore Resuscitation & First Aid Council (SRFAC) in 2016, and is a member of the International Liaison Committee on Resuscitation (ILCOR) Pediatrics Taskforce.

Assoc Prof Ng is Adjunct Associate Professor with the Duke-NUS Medical School and Yong Loo Lin School of Medicine. He is also a member of the Duke-NUS Medical School Admissions Committee and a council member of the College of Paediatrics & Child Health, Singapore.



Joanne Ngeow, MBBS, FRCP, MPH

Dr Joanne Ngeow, BMedSci, MBBS, FRCP, MPH is Senior Consultant, Division of Medical Oncology at the National Cancer Centre Singapore and Associate Professor (Genomic Medicine) at the Lee Kong Chian School of Medicine, Nanyang Technological University Singapore. Dr Ngeow currently heads the Cancer Genetics Service at the National Cancer Centre Singapore with an academic interest in hereditary cancer syndromes and translational clinical cancer genetics. She was awarded consecutive fellowships by the National Medical Research Council and the Ambrose Monell Foundation to complete formal clinical and wet bench training in Cancer Genomic Medicine at the Genomic Medicine Institute, Cleveland Clinic, Ohio.

She has published in and serves as reviewer for many top-tiered peer-reviewed journals including the *Journal of Clinical Oncology*, *JNCI*, *Gastroenterology*. Dr Ngeow is an Editorial Board Member for Endocrine Related Cancers. Dr Ngeow is funded by the National Medical Research Council and Ministry of Health to explore how gene-environmental interactions predisposes to cancer initiation and progression and the implementation of genomics into routine clinical care. She co-leads the SingHealth Women in Science (WinS) Network aimed at nurturing the next generation of physician-scientists on campus.

About the speakers and moderators



Nicola Ruperto, MD, PhD

Dott. Ruperto has been involved in the paediatric rheumatology field since Medical Degree in 1990 under the supervision of Prof. Martini at the University of Pavia, Italy. He spent 2 years in Cincinnati, Ohio, USA under the supervision of Dr Giannini learning clinical trials and consensus methodologies. While in the USA he took a “Master in Public Health” at the Harvard School of Public Health in Boston, MA and won the Senior Rheumatology Scholars Award in 1996. He is among the founder (in 1997) of the Paediatric Rheumatology International Trials Organisation (PRINTO) where he currently holds the position of PRINTO Senior Scientist. He took active part in the management of the multi-national consensus efforts that lead to the development and prospective validation of the core set of response variables and preliminary definition of improvement for use in juvenile idiopathic arthritis (JIA), juvenile dermatomyositis (JDM), and juvenile systemic lupus erythematosus (JSLE) future clinical trials. He was/is the co-PI and project manager for several PRINTO grants from the European Union. Dr Ruperto has published about more than 250 peer reviewed papers.



Vicki Seyfert-Margolis, PhD

Vicki Seyfert-Margolis, Ph.D. founded My Own Med in January 2013, based on over two years of work on a database, web and mobile application platform technology for family-based co-management of health. She has extensive experience from efficacy to effectiveness to clinical trial designs that incorporate digital technology into RWE. Her recent publication in Nature Biotechnology (The Evidence Gap; Vol36 No.3, March 2018) outlines her experience and views on these subjects. Previously, Dr. Seyfert-Margolis was the Senior Advisor for Science Innovation and Policy in the Office of the Commissioner of the US Food and Drug Administration. While at the FDA, she oversaw the development and execution of an agency wide strategic plan for regulatory science. Prior to the FDA, she served as Chief Scientific Officer at the Immune Tolerance Network (ITN), a non-profit consortium of researchers seeking new treatments for diseases of the immune system. At ITN, Dr. Seyfert-Margolis oversaw the development of over 20 leading edge assay development and centralized laboratory facilities, bringing them to GLP and CLIA compliance. She designed and implemented biomarker discovery studies for over 25 Phase II clinical trials across a broad array of immunologically mediated diseases including autoimmune disorders, allergy, and solid organ transplantation. Prior to this, she served as Director of the Office of Innovative Scientific Research Technologies at the National Institute of Allergy and Infectious Diseases at NIH, where she worked to integrate emerging technologies into existing immunology and infectious disease programs. Dr. Seyfert-Margolis completed her PhD in immunology at the University of Pennsylvania’s School of Medicine, and her post-doctoral fellowship work at Harvard University and the National Cancer Institute.



Manpreet K. Singh, MD, MS

Dr. Singh leads a multidisciplinary team at Stanford University that evaluates and treats youth with a spectrum of mood disorders as young as age 2 and well into their 20s. Her research investigates the origins and pathways for developing mood disorders during childhood, the biological basis of sex differences in neurodevelopment, and aims to discover methods to protect and preserve function after mood symptoms begin. Upon completing her career development award that characterized the neuroscience of emotion regulation in healthy offspring of parents with bipolar disorder, she received a Faculty Scholar Award in Pediatric Translational Medicine. Now, she leads several NIH and industry-sponsored independent investigator studies examining risk factors and mechanisms underlying mood disorders and their treatment. This work is inspired toward biomarker discovery and novel therapeutic approaches that transcend current clinical standards of care.

About the speakers and moderators



Soo Khee Chee, MD

Dr Soo is a surgical oncologist, and Head and Neck surgeon. He was Head of Department of General Surgery at Singapore General Hospital for 11 years and was also the founding director of National Cancer Centre. His research interest is focused on Biphotonic and running phase 3 clinical trials. Currently he is the Principal Investigator of a clinical trial involving 12 different countries and the trial is to be completed in the next few months. He was the Deputy CEO in charge of research and education at the SingHealth Duke-NUS Academic Medical Centre.



Wong Tien Yin, MD, PhD

Prof. Wong is a senior consultant ophthalmologist sub-specializing in medical retina at the Singapore National Eye Centre (SNEC). He is also the Provost's Chair of Ophthalmology at Duke-NUS Medical School, National University of Singapore where he is concurrently Vice-Dean, Office of Academic and Clinical Development.

Prof. Wong is a physician-scientist, practicing as a retinal specialist and with broad-based research focused on the epidemiology and clinical treatment outcomes of retinal diseases, such as diabetic and hypertensive retinopathy and age-related macular degeneration. He has published more than 1,200 peer-reviewed papers, including papers in the New England Journal of Medicine and the Lancet, has given more than 400 invited named, plenary and symposium lectures. He chairs the International Council of Ophthalmology's Committee on Diabetic Eye Care, sits on many international professional bodies, and is on Editorial Boards of JAMA Ophthalmology, IOVS, Diabetes Care, and other journals. He is also a two times recipient of the Singapore Translational Researcher (STaR) Award (2008 and 2014), the highest award for the most senior clinician-scientists in Singapore.



Yeo Joo Guan, MBBS, PhD, MRCPCh (UK), MMed (Paediatrics) (Singapore)

Dr Yeo Joo Guan is a Consultant in Paediatric Medicine in KK Women's and Children's Hospital. He earned his M.B.B.S. and Masters of Medicine (Paediatric Medicine) from the National University of Singapore (NUS) in the year 2000 and 2006 respectively. During his advanced speciality training, he obtained his Ph.D. from the Department of Microbiology, Immunology programme, NUS, on the role of serine protease C1s in lupus pathogenesis supported by the Ministry of Health's Healthcare Research Scholarship in 2014.

Following the completion of his advanced speciality training in 2015, he was mentored by Professor Salvatore Albani (Translational Immunology Institute), working on the holistic, multi-dimensional interrogation of the immunome of childhood onset Systemic Lupus Erythematosus with the dual translational goals of identifying predictors of clinical fate and novel therapeutic targets for manipulation.

He is happily married with 6 children and has a supportive wife seeing him through his endeavour to become a successful clinician scientist with the hope of making a difference in improving the care of paediatric rheumatological patients through translational medicine.

In his free time, he is actively involved in organising outdoor scouting activities for children as a volunteer adult leader. He believes that influencing the next generation either through a holistic education in non-academic skills, in addition to his work as a researcher are important life goals that are worth pursuing.

EUREKA Singapore
Monsoon School - Translational Medicine
October 29 - November 2, 2018 • One Degree 15 Marina (Sentosa), Singapore

CURRICULUM (as on 16Oct18)

* Eureka reserves the right to change any session as deem necessary *

Time (Start)	Monday, 29 Oct	Tuesday, 30 Oct	Wednesday, 31 Oct	Thursday, 1 Nov	Friday, 2 Nov
Transport IN	From Harbourfront Exit D Taxi Stand; 08:10 and 08:30	From Harbourfront Exit D Taxi Stand; 08:10 and 08:30	From Harbourfront Exit D Taxi Stand; 08:10 and 08:30	From Harbourfront Exit D Taxi Stand; 08:10 and 08:30	From Harbourfront Exit D Taxi Stand; 08:10 and 08:30
8:30-9:00	(8:30-9:00) Registration & Coffee	(8:30-9:00) Coffee	(8:30-9:00) Coffee	(8:30-9:00) Coffee	(8:30-9:00) Coffee
9:00-12:00	(9:00-9:15) Welcome Address Speakers: Salvatore Albani (9:15-10:00) Introduction to the week and Ice breaker Facilitators: Scott Compton and Irene Lee (45m) (10:00-11:00) Mapping Translational Medicine: Intro to TM Facilitator: Salvatore Albani (1h) In session break (11:00-12:30) Keynote Encounter with Professor Soo Khee Chee - "Overcoming the research valley of Death" (1h30m)	(9:00-9:15) Day intro Facilitators: Scott Compton and Irene Lee (15m) (9:15-10:15) Concept of Drugability: Challenges and Opportunities When is the technology right for translational development? Presenter: Salvatore Albani (1h) (10:15-10:30) BREAK (10:30-12:00) Intellectual Property Speaker: Cheryl McCaffery and Wainwright Fishburn (1h30m)	(9:00-9:15) Day intro Facilitators: Scott Compton and Irene Lee (15m) (9:15-10:15) Unfolding Case Study II: Magic Bullet (1h) (10:15-10:30) BREAK (10:30-11:30) The drug development process Speaker: Vicki Seyfert-Margolis (1h) (11:30-12:30) Principles of modern clinical development Speaker: Alberto Martini (1h)	(9:00-9:15) Day intro Facilitators: Scott Compton and Irene Lee (15m) (9:15-10:15) Mentoring Session I Participants will address their own dilemmas in a small group setting as facilitated by expert faculty. (1h) In session break (10:15-11:00) - Artificial Intelligence in Medicine Speaker: David Matchar (45m) (11:00-12:00) Gender & Ethnicity Equipoise in Translational Medicine (and in life) Facilitators: Joanne Ngeow, Valerie Chew, Manpreet KS, Ann Marie Chacko (1h)	(9:00-9:15) Day intro Facilitators: Scott Compton and Irene Lee (15m) (9:15-10:15) High dimensionality and biomarkers in Translational Discovery Speaker: Florent Ginhoux (1h) (10:15-11:00) Mentoring Session II - part I (45m) In session break (11:00-12:00) "20 years as a Clinician-Scientist and Innovator in Singapore: Pearls, Set-backs and Lessons!" Speaker: Wong Tien Yin (1h)
12:00-13:30	12:30-13:30 Group Lunch	12:00-13:00 Group Lunch	12:30-13:30 Group Lunch	12:00-13:00 Group Lunch	12:00-13:00 Group Lunch
13:30-18:00	(13:30-14:30) "Speaking other people's language - scientist to people & academician to pharma" Speaker: Gianfranco Grompone (1h) (14:30-15:30) Journey of a Translational Scientist Speaker: Yeo Joo Guan (1h) (15:30-15:45) BREAK (15:45-16:45) Value based healthcare Speaker: Yvonne Lee (1h) (16:45-18:15) Unfolding case study I: Magic Bullet This case study will be discussed in small groups (1h30m)	(13:00-14:00) Leadership Speaker: Ian Curran (1h) (14:00-14:45) From Idea to Lead Speaker: David Epstein (45m) (14:45-15:00) BREAK (15:00-16:00) Starting a Company Speaker: Wainwright Fishburn (1h) (16:00-17:00) Funding Speaker: Steven Myint (1h) (17:00-17:30) "How to successfully fail" Speaker: Gianfranco Grompone (30m)	(13:30-15:00) Speed Dating: Participants will meet one on one with faculty on various topics of interest to participants (1h30m) (15:00-16:00) Regulatory Aspects (General & Paediatrics) Speakers: Vicki Seyfert-Margolis and Nicola Ruperto (1hr) (16:00-16:15) BREAK (16:15-17:15) International Networks Speakers: Alberto Martini (1h) (17:15-18:15) Peculiarities of Drug Development in Paediatrics Speaker: Nicola Ruperto (1h) (18:15-19:15) Keynote encounter with Professor Freddy Boey (with interactive Q&A over wine & cheese) (1h)	(13:00-14:00) Building a paediatric research academic enterprise - experience from two worlds Speakers: Alberto Martini and Ng Kee Chong (1h) (14:00-15:00) Team Skills Facilitator: Scott Compton (1h) (15:00-15:15) BREAK (15:15-17:15) Presentation workshop Participants will work in small groups to experience direct feedback on presentation skills. (2h) (16:15-18:15) Unfolding Case Study III: Magic Bullet (2h)	(13:00-14:00) GUSTO/S-PRESTO Speakers: Kenneth Kwek and Jerry Chan (1h) (14:00-15:00) Mentoring Session II - part II (1h) (15:00-15:15) BREAK (15:15-16:15) Medtech and interfacing with Pharma Speaker: Lin Xiang Liang (1h) (16:15-18:15) Unfolding Case Study III: Magic Bullet (2h)
Evening 18:00	(18:30) Transport to opening dinner (19:00) Opening Dinner (off-site: The Clifford Pier)	Free Evening	(18:45) Evening Activities: Wine & Cheese @ Boaters Bar (on site)	Free Evening	(18:30) 10mins walk to Cape Royal for closing dinner (19:00) Closing Dinner @ Cape Royal, Sentosa
Transport OUT		(Transport back to Harbourfront MRT: 17:00, 17:30, 18:30, 19:15)	(Transport back to Harbourfront MRT: 19:15, 19:45, 20:15, 21:00, 21:30)	(Transport back to Harbourfront MRT: 17:00, 17:30, 18:30, 19:15)	(Transport back to Harbourfront MRT: 19:45, 20:15, 21:15, 21:40, 22:10, 22:40)

Important note:

Pre-arranged transport IN and OUT of One 15 Marina is provided at stipulated timings only. Kindly arrange your own transport at own cost, if you missed it. Course will start promptly at indicated time. Participation at all sessions is compulsory for all participants.