DukeNUS Medical School | National Cancer Centre Singapore, SingHealth | CSCB Cancer and Stem Cell Biology Seminar Series

Stem Cell Transplantation for Autoimmune Diseases

Abstract:

Using animal models of autoimmune diseases (AID), hematopoietic stem cell transplantation (SCT) was previously shown to halt disease progression and reverse organ damage in genetic and acquired models of AID[1]. Over the past two decades, clinical case reports also showed benefit and recently reported controlled clinical trials have demonstrated improved outcomes with SCT compared to conventional immunomodulatory treatments in severe scleroderma and refractory multiple sclerosis[2-4]. Study designs, patient selection criteria, transplant regimens and outcomes of these pivotal trials will be reviewed. We will also examine results from the European Transplant Registry of over 2000 hematopoietic transplants for AID[5]. Regimen related toxicities and recurrence of AID will be detailed and patient referral criteria discussed. Finally, recently completed genomic, immunologic and imaging studies will be presented to provide insights into why SCT is of benefit in severe AID.

References: [1]Good R. PNAS 1985, 82:7742-7747; [2]Van Laar J. *JAMA* 2014; 311:2490-2498; [3]Sullivan K. *NEJM* 2018; 378:35-47; [4]Burt R. *JAMA* 2019;321:165-174; [5]Snowden J. *Blood Advances* 2017; 1:2742-2755.



Speaker:

Dr. Keith M SULLIVAN, MD

Professor of Medicine
James B. Wyngaarden Professor of Medicine, in the School of Medicine
Member of the Duke Cancer Institute
Duke University, Durham, NC, USA

Dr Keith Sullivan, MD is the James B. Wyngaarden Professor of Medicine and formerly chief of the combined Division of Medical Oncology and Transplantation at Duke University Medical Center. Dr. Sullivan came to Duke from the Fred Hutchinson Cancer Center and the University of Washington in Seattle, where he was a member of the Clinical Research Division and head of the Long-Term Follow-up Program. He is a renowned expert in blood and marrow transplantation and is widely published on the subject. His research focuses on the late effects of high-dose chemotherapy and stem cell transplantation, graft-versus-host disease, and the use of transplantation as a treatment for sickle cell and autoimmune diseases. Dr. Sullivan has been a member of the board of directors for the American Society of Hematology and the Foundation for the Accreditation of Hematopoietic Cell Therapy and was the president and a founding member of the American Society for Blood and Marrow Transplantation. He is an electee of the Association for American Physicians and a Fellow of the American Association for the Advancement of Science. He currently serves on the editorial board of several publications, including *Biology of Blood and Marrow Transplantation, Bone Marrow Transplantation, Blood Reviews* and *Hem/Onc Today*. Dr. Sullivan has published 496 research articles (11 in NEJM) and was recognized as an ISI Highly Cited Researcher, Clinical Medicine Category, by the Institute for Scientific Information. A report on myeloablative autologous stem cell transplant for severe scleroderma (SCOT trial, NEJM 2018) was recently awarded the David Sackett Trial of the Year by the Society for Clinical Trials.

Date:

18 July 2019 (Thursday)

Venue:

Amphitheatre, Level 2
Duke-NUS Medical School
8, College Road,
Singapore 169857

Time:

12:00 – 1:00 p.m.

Host:

Dr. Sin Tiong ONG
Associate Professor
Laboratory of Haematologic Malignancies
Programme in Cancer & Stem Cell Biology

No registration is required.
All are welcome.
Any enquiries, please contact:
Lilian Poon (6601 3779)