

ADULT HAEMATOPOIETIC STEM CELL TRANSPLANT (HSCT) FELLOWSHIP PROGRAMME AT THE NATIONAL UNIVERSITY CANCER INSTITUTE, SINGAPORE (NCIS)

The Adult HSCT Fellowship Programme at the National University Cancer Institute, Singapore (NCIS) aims to utilise stem cell transplantation in the treatment of haematologic malignancies. Approximately 80 to 90 adult and paediatric transplants are performed under our Programme annually.

The Programme is accredited by the Foundation for the Accreditation of Cellular Therapy (FACT) which recognises that our Programme has met the most rigorous standards in every aspect of stem cell therapy. In addition to the clinical Programme, we also have an apheresis and stem cell collection unit, as well as a cell processing laboratory that is crucial to collecting and preparing safe and effective haematologic tissues for transplantation.

Aim of Programme:

The Programme currently offers specialised training for physicians interested in stem cell transplantation. This Fellowship Programme is tailored to meet the needs of advanced haematology trainees/graduates in acquiring clinical knowledge and skills to be able to start and maintain an adult-dedicated BMT Programme in their home country.

Eligibility: Applicants who have completed their Adult Haematology training.

Fellowship Training Duration: 1-Year

Training Objectives:

1. Providing trainees with knowledge on the basic underlying pathophysiologic principles of HSCT and to ensure they understand the indications, evaluation and management of the diseases treated with HSCT.
2. Ensure trainees are familiar with the basics of donor selection (eg. appropriate use of autologous versus allogeneic transplantation) and methods used to collect stem cells including apheresis and marrow harvesting.
3. Ensure trainees are competent in the pre-transplant evaluation of patients, including clinical staging and HLA typing, risk stratification and synthesis of an appropriate clinical plan and discussion of risks and benefits of treatment alternatives including informed consent for chemotherapy.
4. Ensure trainees are competent in the initial monitoring, diagnosis, and management of the acute and late complications of HSCT, including acute/ chronic graft versus host disease, and infectious complications.
5. Ensure trainees are able to formulate discharge and follow up plans, and assist in the transition of care to referring physicians for foreign patients when appropriate.
6. Ensure trainees are competent with long term monitoring and follow up care planning for all HSCT patients.

Principal Learning Activities:

1. Inpatient Rounds
2. Outpatient Clinics
3. Operative Marrow Harvesting
4. Apheresis Centre and Stem Cell Processing Lab
5. Educational Activities:
 - i) Bone marrow series of didactic lectures within the core curriculum
 - ii) Case conference presentations

- iii) Topic reviews
- iv) Journal clubs
- v) Leukaemia and Lymphoma tumour boards
- vi) Infectious disease grand rounds
- vii) Stem cell transplant meeting and conference

Schedule of Training:

- ***Discussion sessions with transplant coordinators***
 - Familiarity with the inpatient and outpatient setup of the HSCT service in NUH. Attachment of clinical fellow to the transplant coordinators to familiarize themselves with donor search, donor counseling and donor harvest planning.
- ***Involvement in the inpatient and outpatient transplant services.***
 - Attachment to the inpatient and outpatient transplant service.
- ***Lab based attachment***
 - Fellows are required to spend a month in the Apheresis Center and Stem Cell Processing Lab to observe the process of stem cell collection via apheresis and the processing of bone marrow and peripheral blood stem cell products. This will allow them familiarity with the process of stem cell collection, apheresis techniques as well as the basics of stem cell processing. Attachment to the Molecular Lab which processes chimeric studies is also included during the posting.
- ***Care of own patients***
 - In addition to attachment to the inpatient and outpatient transplant services, trainees who have successfully completed the midterm assessment will be allowed additional responsibilities including the care of their own patients, under the supervision of faculty members.
- ***End-of-Posting Evaluation:***
 - Assessment of the fellow by faculty members

Clinical Supervisors: Dr Koh Liang Piu, Dr Tan Lip Kun, Dr Michelle Poon Limei

To find out more about the NCIS' Adult HSCT Fellowship Programme, please email ncis@nuhs.edu.sg.