Memorial Sloan Kettering Cancer Center

Lineage plasticity and cell of origin of hematologic malignancies (1 day virtual workshop)

Date: October 14 (Friday), 2022
Registration: https://meetmsk.zoom.us/meeting/register/tJ0kf-2pqTwrGdKupavyf1E3FtKFDLO-i7No

Organizing committee:

Omar Abdel-Wahab, MD, Center for Hematologic Malignancies, HOPP
Ahmet Dogan, MD, PhD, Department of Pathology and Laboratory Medicine
Ross Levine, MD, HOPP, Center for Hematologic Malignancies
Wenbin Xiao, MD, PhD, Department of Pathology and Laboratory Medicine

Narrative:

Lineage infidelity in acute leukemia is defined by cross-lineage marker expression such as B- and/or T-lymphoid antigen expression on myeloid blasts or vice versa. Lineage plasticity denotes a process by which leukemic cells change from one morphological, immunophenotypic and functional cell type to another (and back), under the influence of particular environmental/therapeutic pressures. Both lineage infidelity and plasticity have been proposed as a potential mechanism of therapeutic resistance. Although the pathogenesis remains to be studied, cell-of-origin may underscore the biology of both phenomena. This workshop brings together basic, translational, and clinical researchers to discuss and debate these biological processes. Taken together, participants at this workshop will gain new insight into the biology of lineage infidelity, lineage plasticity and cell of origin, as well as have opportunities to cultivate new ideas and establish collaborations with researchers from disparate disciplines.

Aims:

1. To bridge the gap between basic and clinical research
2. To explore the pathogenesis of lineage infidelity/plasticity

Introduction (Omar Abdel-Wahab)
Cell of origin (30 minutes talk, total session 3.5-4 hours, 8:30am-12:30pm)
Session1 Chair: Omar Abdel-Wahab

1. Anna Beaudin: Primitive and definitive hematopoiesis
2. Frederic Geissmann: Origin and function of resident macrophages
3. Benjamin Durham: Histiocytic/dendritic cell neoplasm and cell of origin
4. Ulrich Steidl: Leukemic stem cell

Break 20 minutes

Session2 Chair: Ahmet Dogan

5. Andrew Lane: BPDCN and myeloid neoplasms
6. 2 Short talks, each 20 minutes

Lunch break 12:30pm-1:30pm

Lineage infidelity/plasticity (30 minutes talk, total session 3.5-4 hours, 1:30pm-5:30pm)
Session3 Chair: Wenbin Xiao

7. Daniel Arber: How to diagnose MPAL
8. Charles Mullighan: MPAL genomics
9. Olaf Heidenreich: Lineage specification and switch
10. Mark Geyer: How to treat MPAL

Break 20 minutes

Session4 Chair: Ross Levine

11. Teresa Palomero: Cell plasticity in PTCL
12. Mark Dawson: Cell state switch and therapy resistance
13. 2 Short talks each 20 minutes

Closure (Ross Levine)

Short talks will be selected from submitted abstracts. All abstracts should follow the ASH (American Society of Hematology) format guidelines, in Arial, 11 point font with one inch margins all around. All abstracts must be submitted by September 30, 2022 by email to: mayacks@mskcc.org.