

# Division of Cancer Biology, National Cancer Institute National Institutes of Health

## **Strategic Workshop**

# Immune Privilege of Stem Cells and Cancer Immunotherapy

May 1, 2023 NCI Shady Grove Campus 9609 Medical Center Drive Rockville, MD 20850

#### **Planning Committee**

Elaine Fuchs, Ph.D., Rockefeller University, Co-Chair Justin Lathia, Ph.D., Cleveland Clinic, Co-Chair Kevin Howcroft, PhD, NCI Yin Liu, PhD, NCI

### Agenda – May 1, 2023

8:00 – 8:10am Dr. Daniel Gallahan (Division Director, DCB/NCI)

**Opening remarks and Logistics** 

#### Morning Session chairs: Drs. Justin Lathia and Tannishtha Reya

8:10 -9:30am	Session I: Immune Evasion Mechanisms of Stem Cells
8:10 – 8:30am	Justin Lathia, PhD, (Cleveland Clinic)
8:30 - 8:50am	Judith Agudo, PhD, (Dana Farber Cancer Institute)
8:50 - 9:10am	Yuxuan Miao, PhD, (University of Chicago)
9:10 – 9:30am	Omer Yilmaz, MD, PhD, (Massachusetts Institute of Technology)
9:30 – 10:00am	Break
10:00 – 11:40am	Session II: Signaling Networks, Transcriptional and Epigenetic Regulations Underlying Cancer Stem Cell Immune Evasion
10:00 – 10:20am	Tannishtha Reya, PhD, (Columbia University)
10:20 - 10:40am	Linheng Li, PhD, (Stowers Institute)
10:40 – 11:00am	Bradley Bernstein, MD, PhD, (Harvard University)
11:00 – 11:20am	Joan Massague, PhD, (Memorial Sloan Kettering Cancer Center)
11:20am – 12:40pm	Lunch Break

#### Afternoon Session Chairs: Drs. Elaine Fuchs and Ronald DePinho

12:40 – 2:00pm	Session III: Stem Cells, Niche Microenvironment and Immune Homeostasis
12:40 - 1:00pm 1:00 - 1:20pm 1:20 - 1:40am 1:40 - 2:00pm	Elaine Fuchs, PhD, (Rockefeller University) Alexander Rudensky, PhD, (Memorial Sloan Kettering Cancer Center) Michael Karin, PhD, (University of California, San Diego) Rosandra Kaplan, MD, (National Cancer Institute)
2:00 – 2:30pm	Break
2:30 - 3:30pm 2:30 - 2:50pm	Session IV: Stemness, Plasticity in Immune Evasion and Immunotherapy Catriona Jamieson, MD, PhD, (University of California, San Diego)

2:50 – 3:10pm Carla Kim, PhD, (Boston Children's Hospital)

3:10 – 3:30pm Ronald DePinho, MD, (MD Anderson Cancer Center)

3:30 – 3:50pm break

3:50 – 4:45pm Session V: Round Table Discussion On Questions Below to be mediated by

Drs. Ronald DePinho, Justin Lathia and Elaine Fuchs

- 1. Mechanisms of stem cell immune evasion: whether and how it is connected to the initiation and maintenance of the immune suppressive environment in tumor?
- 2. What are the roles of transcriptional and epigenetic regulation, post translational modifications, metabolism and microbiome in immune evasion of cancer stem cells?
- 3. Immune cells and stem cell interaction: what are their roles in tissue homeostasis, and in health and diseases?
- 4. What is the relationship between cancer stemness/plasticity and immune evasion?
- 5. Can we target cancer stem cells in immunotherapy?