Cancer Fibroblasts and Therapies

The Banbury Center, Cold Spring Harbor Laboratory, New York, USA
March 10-13, 2019

This meeting was funded by The Northwell Health – Cold Spring Harbor Laboratory Affiliation

Organizers:
Claus Jørgensen, Cancer Research UK Manchester Institute;
Ellen Puré, University of Pennsylvania;
David Tuveson, Cold Spring Harbor Laboratory

Cancer Associated Fibroblasts (CAFs) are integral components of carcinomas, where they influence tumor progression and therapeutic response. Recent studies have revealed juxtacrine and paracrine interactions between CAFs and neoplastic cells that promote metabolic adaptation and tissue patterning. In addition, analyses have demonstrated subtypes of CAFs with different roles in the tumor microenvironment, including immune modulation. This meeting convened experts to discuss current understanding of CAF biology, with an emphasis on new approaches to probe the fundamental properties of CAFs, and medical applications of CAF targeting.

SUNDAY, MARCH 10

Afternoon Participant arrivals
6:00 pm  Reception, dinner at Robertson House

MONDAY, MARCH 11

7:15 am  Breakfast at Robertson House

8:30 am  Welcoming and Introductory Remarks
Rebecca Leshan, The Banbury Center, Cold Spring Harbor Laboratory
Ellen Puré, University of Pennsylvania
David Tuveson, Cold Spring Harbor Laboratory
SESSION 1: Matricellular Regulation and CAFs
Valerie Weaver, University of California, San Francisco, USA
Richard Hynes, Massachusetts Institute of Technology, Cambridge, USA
Edna Cuckierman, Fox Chase Cancer Center, Philadelphia, USA

SESSION 2: CAFs and Metastasis
Zena Werb, University of California, San Francisco, USA
Erik Sahai, Francis Crick Institute, London, UK
Thea Tlsty, University of California, San Francisco, USA

SESSION 3: The Permissive Niche and Tumor Development
Ellen Puré, University of Pennsylvania, Philadelphia, USA
Ashani Weeraratna, The Wistar Institute, Philadelphia, USA
Sheila Stewart, Washington University in St. Louis, USA

SESSION 4: CAFs and Immune Regulation
Douglas Fearon, Cold Spring Harbor Laboratory, Cold Spring Harbor, USA
Florian Greten, Georg-Speyer-Haus, Frankfurt/Main, Germany

SESSION 5: Fibroblast Heterogeneity
David Tuveson, Cold Spring Harbor Laboratory, Cold Spring Harbor, USA
Fiona Watt, King’s College London, UK
Mikala Egeblad, Cold Spring Harbor Laboratory, Cold Spring Harbor, USA

SESSION 6: Reciprocal Interactions between Tumor Cells and CAFs
Tony Hunter, Salk Institute for Biological Studies, La Jolla, USA
Scott Powers, Stony Brook University, Stony Brook, USA
Mara Sherman, Oregon Health and Science University, Portland, USA

TUESDAY, MARCH 12

7:15 am Breakfast at Robertson House

SESSION 5: Fibroblast Heterogeneity
David Tuveson, Cold Spring Harbor Laboratory, Cold Spring Harbor, USA
Fiona Watt, King’s College London, UK
Mikala Egeblad, Cold Spring Harbor Laboratory, Cold Spring Harbor, USA

10:15 am SESSION 6: Reciprocal Interactions between Tumor Cells and CAFs
Tony Hunter, Salk Institute for Biological Studies, La Jolla, USA
Scott Powers, Stony Brook University, Stony Brook, USA
Mara Sherman, Oregon Health and Science University, Portland, USA
11:30 am General Discussion

12:15 pm Luncheon at Robertson House

2:00 pm SESSION 7: Regulatory Networks of Stromal Dysfunction
    Ronald Evans, Salk Institute for Biological Studies, La Jolla, USA
    Ruth Scherz-Shouval, Weizmann Institute of Science, Rehovot, Israel
    Robert Maki & Daniel Ramirez, Northwell Health, Lake Success USA

3:45 pm SESSION 8: Metabolic Regulation and CAFs
    Igor Astsaturov, Fox Chase Cancer Center, Philadelphia, USA
    Alec Kimmelman, New York University Langone Medical Center, USA

4:35 pm Day 2 Wrap Up Discussion

5:30 pm Reception

7:30 pm Dinner at Robertson House

WEDNESDAY, MARCH 13

7:15 am Breakfast at Robertson House

8:30 am SESSION 9: Reprogramming the Tumor Microenvironment
    David DeNardo, Washington University School of Medicine in St. Louis, USA
    Tobias Janowitz, Cold Spring Harbor Laboratory, Cold Spring Harbor, USA

9:20 am SESSION 10: Enhancing Cancer Treatment
    Mikhail Kolonin, University of Texas, Houston, USA
    Sunil Hingorani, Fred Hutchinson Cancer Research Center, Seattle, USA
    Rakesh Jain, Harvard Medical School, Boston, USA

11:00 am SESSION 11: Meeting Wrap-Up

12:00 pm Luncheon at Robertson House

— END OF PROGRAM —
MEETING PARTICIPANTS

Igor Astsaturov, Fox Chase Cancer Center
Edna Cuckierman, Fox Chase Cancer Center
David DeNardo, Washington University School of Medicine in St. Louis
Mikala Egeblad, Cold Spring Harbor Laboratory
Ronald Evans, Salk Institute for Biological Studies
Douglas Fearon, Cold Spring Harbor Laboratory
Florian Greten, Georg-Speyer-Haus
Sunil Hingorani, Fred Hutchinson Cancer Research Center
Tony Hunter, Salk Institute for Biological Studies
Richard Hynes, Massachusetts Institute of Technology
Rakesh Jain, Harvard Medical School
Tobias Janowitz, Cold Spring Harbor Laboratory
Alec Kimmelman, New York University Langone Medical Center
Mikhail Kolonin, University of Texas
Robert Maki, Northwell Health Cancer Institute
Scott Powers, Stony Brook University
Ellen Puré, University of Pennsylvania
Daniel Ramirez, Northwell Health
Erik Sahai, Francis Crick Institute
Ruth Scherz-Shouval, Weizmann Institute of Science
Mara Sherman, Oregon Health and Science University
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Ashani Weeraratna, Wistar Institute
Zena Werb, University of California, San Francisco