Conference Cochairs:
Mariano Barbacid, Spanish National Cancer Center (CNIO), Madrid, Spain
Dafna Bar-Sagi, New York University Langone Medical Center, New York, NY
Frank McCormick, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
Deborah K. Morrison, National Cancer Institute, Frederick, MD

[U]= Recording will be unavailable to view on-demand

SUNDAY, MARCH 5, 2023

Registration
3:30 pm-7:30 pm Liberty Ballroom Foyer

Welcome and Opening Keynote Lectures
6:00 pm-7:30 pm Liberty Ballroom

6:00-6:10 Welcome from Conference Cochairs
6:10 Introduction of Keynote Speaker
   Frank McCormick, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
6:10-6:50 Keynote Lecture
   Targeting KRAS: Light at the end of the tunnel
   Mariano Barbacid, Spanish National Cancer Center (CNIO), Madrid, Spain
6:50-7:00 Discussion / Q&A
7:00 Introduction of Rising Star Lecturer
   Dafna Bar-Sagi, New York University Langone Medical Center, New York, NY
7:00-7:20 Rising Star Lecture
   Targeting RAS in cancer: Opportunities and challenges
   Andrew Aguirre, Harvard Medical School, Boston, MA
7:20-7:30 Discussion / Q&A

Opening Reception
7:30 pm-9:00 pm Franklin Hall A

MONDAY, MARCH 6, 2023

Breakfast
7:00 am-8:00 am Franklin Hall A
*Short talk selected from proffered abstracts
Plenary Session 1: Biochemistry, Function, and Structure
8:00 am-10:15 am Liberty Ballroom
Session Chair: Frank McCormick, UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA

8:00-8:25  Treating mutant KRAS tumors with RAS inhibitors, alone of in combination
Neal Rosen, Memorial Sloan Kettering Cancer Center, New York, NY
8:25-8:35  Discussion / Q&A

8:35-9:00  Emerging therapeutics shed light on the allosteric regulation of KRAS
Piro Lito, Memorial Sloan Kettering Cancer Center, New York, NY
9:00-9:10  Discussion / Q&A

9:10-9:35  Uncovering new structural insights into RAS interactions with effectors and regulators
Dhirendra K. Simanshu, Frederick National Laboratory for Cancer Research, Frederick, MD
9:35-9:45  Discussion / Q&A

9:45-9:55  Structural plasticity of KRAS oncogenic mutants – a case of misleading conclusions from GTP analogues*
Alok K. Sharma, Frederick National Laboratory for Cancer Research, Frederick, MD
9:55-10:00 Discussion / Q&A

10:00-10:10  Factors modulating RAF dimerization downstream of RAS*
Jawahar Sudhamsu, Genentech Inc., South San Francisco, CA
10:10-10:15 Discussion / Q&A

Break
10:15 am-10:35 am Liberty Ballroom Foyer

Plenary Session 2: Signaling Networks
10:35 am-12:55 pm Liberty Ballroom
Session Chair: Deborah K. Morrison, National Cancer Institute, Frederick, MD

10:35-11:00  Targeting the ERK-MYC signaling network for the treatment of KRAS-mutant cancers
Channing J. Der, University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill, NC
11:00-11:10  Discussion / Q&A

*Short talk selected from proffered abstracts
11:10-11:35  Molecular characterization of acquired resistance to KRAS\textsuperscript{G12C}–EGFR inhibition in colorectal cancer  
Sandra Misale, Memorial Sloan Kettering Cancer Center, New York, NY  
11:35-11:45 Discussion / Q&A  

11:45-12:10  Paradoxical activation of oncogenic signaling as a cancer treatment strategy  
René Bernards, The Netherlands Cancer Institute, Amsterdam, The Netherlands  
12:10-12:20 Discussion / Q&A  

12:20-12:45  Direct covalent inhibitors of mutant K-Ras  
Kevan M. Shokat, University of California, San Francisco, CA  
12:45-12:55 Discussion / Q&A  

Lunch on Own / Free Time  
12:55 pm-2:15 pm  

Plenary Session 3: Tackling RAS Using a Disease-specific Approach  
2:15 pm-4:35 pm Liberty Ballroom  
Session Chair: Christin E. Burd, The Ohio State University, Columbus, OH  

2:15-2:40  Allelic specificity: The key to NRAS-mutant melanoma initiation?  
Christin E. Burd, The Ohio State University, Columbus, OH  
2:40-2:50 Discussion / Q&A  

2:50-3:15  K-RAS hyperexchange mutants in colorectal cancer  
Kevin M. Haigis, Dana-Farber Cancer Institute, Boston, MA  
3:15-3:25 Discussion / Q&A  

3:25-3:50  Three-dimensional genomic mapping of human pancreatic tissue reveals striking multifocality and genetic heterogeneity in precancerous lesions  
Laura D. Wood, Johns Hopkins University School of Medicine, Baltimore, MD  
3:50-4:00 Discussion / Q&A  

4:00-4:25  Developing combinatorial therapies for KRAS-mutant cancers  
Karen M. Cichowski, Brigham and Women’s Hospital, Boston, MA  
4:25-4:35 Discussion / Q&A  

Poster Session A / Reception  
4:45 pm-7:00 pm Franklin Hall A  

**TUESDAY, MARCH 7, 2023**  
*Short talk selected from proffered abstracts*
Breakfast
7:00 am-8:00 am Franklin Hall A

Plenary Session 4: Metabolism
8:00 am-10:15 am Liberty Ballroom
Session Chair: Dafna Bar-Sagi, New York University Langone Medical Center, New York, NY

8:00-8:25 Identifying metabolic dependencies in pancreatic cancer
Alec C. Kimmelman, New York University Langone Medical Center, New York, NY
8:25-8:35 Discussion / Q&A

8:35-9:00 Host autophagy mediates organ wasting and nutrient mobilization for tumor growth [U]
Tor Erik Rusten, Norwegian Radium Hospital, Oslo, Norway
9:00-9:10 Discussion / Q&A

9:10-9:35 Coordinated transcriptional and catabolic programs support iron dependent adaptation to RAS-MAPK pathway inhibition in pancreatic cancer
Rushika M. Perera, University of California, San Francisco, CA
9:35-9:45 Discussion / Q&A

9:45-9:55 Cooperative anti-tumor effects of combined inhibition of KRAS$^{G12C}$ plus autophagy in preclinical models of KRAS$^{G12C}$-driven lung cancer*
Phaedra C. Ghazi, University of Utah, Salt Lake City, UT
9:55-10:00 Discussion / Q&A

10:00-10:10 A bimodal mechanism of RAS inactivation by monoubiquitination*
Wout Magits, VIB-KU Leuven Center for Cancer Biology, Leuven, Belgium
10:10-10:15 Discussion / Q&A

Break
10:15 am-10:35 am Liberty Ballroom Foyer

Plenary Session 5: RASopathies / RAS Superfamily
10:35 am-12:15 pm Liberty Ballroom
Session Chair: Marco Tartaglia, Bambino Gesù Children’s Hospital, Rome, Italy

10:35-11:00 RASopathies: the other face of RAS signaling upregulation
Marco Tartaglia, Bambino Gesù Children’s Hospital, Rome, Italy
11:00-11:10 Discussion / Q&A

*Short talk selected from proffered abstracts
Use of RAS isoforms in nerve tumors
Nancy Ratner, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH

11:10-11:35 Somatic predisposition to germline mutations in the RTK/RAS/MAPK pathway
Anne Goriely, MRC Weatherall Institute of Molecular Medicine, University of Oxford, Oxford, England

11:35-11:45 Discussion / Q&A

11:45-11:55 The role of the RAS GTPase RIT1 in RASopathies and cancer*
Pau Castel, New York University School of Medicine, New York, NY

11:55-12:00 Discussion / Q&A

12:00-12:10 Germline RASopathy mutations provide insights into the differential regulation of RAF family kinases*
Russell Spencer-Smith, National Cancer Institute-Frederick, Frederick, MD

12:10-12:15 Discussion / Q&A

Lunch on Own / Free Time
12:15 pm-2:15 pm

Plenary Session 6: RAS and Tumor Immunity
2:15 pm-4:30 pm Liberty Ballroom
Session Chair: Julian Downward, The Francis Crick Institute, London, England

2:15-2:40 Oncogenic KRAS and the regulation of the pancreatic cancer microenvironment
Marina Pasca di Magliano, University of Michigan Medical School, Ann Arbor, MI

2:40-2:50 Discussion / Q&A

2:50-3:15 The impact of RAS inhibition on tumor immune evasion
Julian Downward, The Francis Crick Institute, London, England

3:15-3:25 Discussion / Q&A

3:25-3:50 Immune rewiring of mutant Ras tumors: Mechanisms and translational implications
Dafna Bar-Sagi, New York University Langone Medical Center, New York, NY

3:50-4:00 Discussion / Q&A

4:00-4:10 How oncogenic Kras shapes the tumor microenvironment in lung adenocarcinoma*
Rachael K. Baliira, University of Michigan, Ann Arbor, MI

4:10-4:15 Discussion / Q&A

*Short talk selected from proffered abstracts
4:15-4:25  TCR1020 specific for KRAS G12V restricted to HLA-A*11:01 exhibits potent and precise antigen specificity for clinical development*
Adham S. Bear, University of Pennsylvania, Philadelphia, PA
4:25-4:30  Discussion / Q&A

**Poster Session B / Reception**
4:45 pm-7:00 pm Franklin Hall A

**WEDNESDAY, MARCH 8, 2023**

**Breakfast**
7:00 am-8:00 am Franklin Hall A

**Plenary Session 7: Targeting RAS**
8:00 am-9:40 am Liberty Ballroom
*Session Chair: David A. Tuveson, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY*

8:00-8:25  Challenges and opportunities in treating KRAS mutant tumors [U]
Shiva Malek, Novartis Institutes for BioMedical Research, Cambridge, MA
8:25-8:35  Discussion / Q&A

8:35-9:00  Selectively targeting KRAS mutant alleles: contribution of both cell autonomous and pro-immunogenic MOAs in an expanded spectrum of human cancers
James G. Christensen, Mirati Therapeutics, San Diego, CA
9:00-9:10  Discussion / Q&A

9:10-9:20  KRAS-targeted PROTAC degraders are broadly efficacious against KRAS-dependent tumor models*
Kathryn Smith, Arvinas Operations, Inc., New Haven, CT
9:20-9:25  Discussion / Q&A

9:25-9:35  IK-595, a MEK-RAF complex inhibitor, obviates CRAF mediated resistance resulting in superior RAS/MAPK pathway inhibition and anti-tumor activity in RAS/RAF altered cancers*
X. Michelle Zhang, Ikena Oncology, Boston, MA
9:35-9:40  Discussion / Q&A

**Break**
9:40 am-10:00 am Liberty Ballroom Foyer

*Short talk selected from proffered abstracts*
Plenary Session 8: Resistance Mechanisms and Emerging Clinical Data  
10:00 am-11:45 am Liberty Ballroom  
Session Chair: Mariano Barbacid, Spanish National Cancer Center (CNIO), Madrid, Spain

10:00-10:25  **KRAS\textsuperscript{G12C} inhibitors- Becoming “Therapeutic”: Lesson from the bedside**  
Melissa L. Johnson, Sarah Cannon Research Institute, Nashville, TN

10:25-10:35  Discussion / Q&A

10:35-11:00  **Systemic interrogation of KRAS function**  
William C. Hahn, Dana-Farber Cancer Institute, Boston, MA

11:00-11:10  Discussion / Q&A

11:10-11:35  **Exploiting altered metabolism as a therapeutic strategy for RAS-driven cancers**  
Kirsten L. Bryant, University of North Carolina Lineberger Comprehensive Cancer Center, Chapel Hill, NC

11:35-11:45  Discussion / Q&A

**Break**  
11:45 am-12:00 pm

**Closing Keynote Lecture**  
12:00 pm-12:50 pm Liberty Ballroom

12:00  Introduction of Keynote Speaker  
Mariano Barbacid, Spanish National Cancer Center (CNIO), Madrid, Spain

12:00-12:40  **Beating KRAS- it’s a Toreo**  
David A. Tuveson, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY

12:40-12:50  Discussion / Q&A

**Closing Remarks and Departure**  
12:50 pm Liberty Ballroom

Dafna Bar-Sagi, New York University Langone Medical Center, New York, NY

*Short talk selected from proffered abstracts*