

CONFERENCE PROGRAM

SUNDAY, DECEMBER 9

- 7:00 p.m.-8:00 p.m.** **WELCOME AND KEYNOTE ADDRESS**
Sapphire IJMN
- 7:00 p.m.-7:15 p.m. **Welcome**
Frank McCormick, UCSF Helen Diller Family Comprehensive Cancer Center,
San Francisco, CA
- 7:15 p.m.-8:00 p.m. **Keynote Address: Deconstructing K-RAS oncogenic signaling in lung and
pancreatic tumors**
Mariano Barbacid, Spanish National Cancer Research Center (CNIO), Madrid, Spain
- 8:00 p.m.-9:30 p.m.** **OPENING RECEPTION**
Sapphire ABEF

MONDAY, DECEMBER 10

- 7:00 a.m.-8:00 a.m.** **BREAKFAST**
Sapphire Northwest Foyer and Sapphire ABEF
- 8:00 a.m.-10:40 a.m.** **PLENARY SESSION 1: RAS STRUCTURE AND BIOPHYSICS**
Sapphire IJMN
- Session Chair: Gideon Bollag**, Plexxikon, Berkeley, CA
- 8:00 a.m.-8:25 a.m. **New structural insights into KRAS biology**
Dhirendra K. Simanshu, Frederick National Laboratory for Cancer Research,
Frederick, MD
- 8:25 a.m.-8:50 a.m. **KRAS Q61H preferentially signals through the MAPK pathway in non-small cell
lung cancer**
Kenneth D. Westover, UT Southwestern Medical Center, Southlake, TX
- 8:50 a.m.-9:15 a.m. **Targeting RAS for anticancer therapy**
Sharon L. Campbell, University of North Carolina at Chapel Hill, NC
- 9:15 a.m.-9:40 a.m. **Dimerization is critical for the functions of wild-type and mutant KRAS**
Chiara Ambrogio, Dana Farber Cancer Institute, Boston, MA
- 9:40 a.m.-10:05 a.m. **Oncogenic Ras control of the tumor immune microenvironment**
Julian Downward, Francis Crick Institute, London, United Kingdom

CONFERENCE PROGRAM

10:05 a.m.-10:20 a.m.	Novel state I structures of oncogenic KRAS4b mutants bound to GTP analog* Albert Chan, Frederick National Laboratory for Cancer Research, Frederick, MD
10:20 a.m.-10:40 a.m.	Speaker panel discussion
10:40 a.m.- 11:00 a.m.	BREAK Sapphire Northwest Foyer
11:00 a.m.-1:15 p.m.	PLENARY SESSION 2: KRAS PROCESSING AND LOCALIZATION Sapphire IJMN Session Chair: Frank McCormick , UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
11:00 a.m.-11:25 a.m.	KRAS4b's unique diffusion behavior is defined by plasma membrane and effector interactions Thomas J. Turbyville, Frederick National Laboratory for Cancer Research, Frederick, MD
11:25 a.m.-11:50 p.m.	Lipid dependence of KRAS plasma membrane interactions John F. Hancock, University of Texas, Health Science Center at Houston, Houston, TX
11:50 p.m.-12:15 p.m.	Targeting K-RAS4B on biologic membranes Mitsu Ikura, University of Toronto, Toronto, ON, Canada
12:15 p.m.-12:40 p.m.	Multiscale simulations of k-Ras on lipid bilayers Fred H. Streitz, Lawrence Livermore National Laboratory, Livermore, CA
12:40 p.m.-12:55 p.m.	Mutations in RABL3 alter KRAS prenylation and are associated with hereditary pancreatic cancer* Sahar Nissim, Brigham and Women's Hospital, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA
12:55 p.m.-1:15 p.m.	Speaker panel discussion
1:30 p.m.-3:30 p.m.	POSTER SESSION A / LUNCH Sapphire ABEF
3:30 p.m.-5:45 p.m.	PLENARY SESSION 3: LESSONS LEARNED FROM MOUSE MODELS Sapphire IJMN Session Chair: Shiva Malek , Genentech, Inc., South San Francisco, CA
3:30 p.m.-3:55 p.m.	Tissue- and cell-specific functions of Hras, Kras4A, and Kras4B in skin and lung cancer Allan Balmain, University of California, San Francisco, San Francisco, CA

**Short talk from proffered abstract*

CONFERENCE PROGRAM

3:55 p.m.-4:20 p.m.	Targeting KRAS-dependent metabolic processes for pancreatic cancer treatment Channing J. Der, University of North Carolina at Chapel Hill, Chapel Hill, NC
4:20 p.m.-4:45 p.m.	Targeting redox dependencies in pancreatic cancer Christine Chio, Columbia University, New York, NY
4:45 p.m.-5:10 p.m.	Exploiting the metabolic dependencies of mutant KRAS lung tumors Carla P. Martins, University of Cambridge, Cambridge, United Kingdom
5:10 p.m.-5:25 p.m.	Modeling the genetic heterogeneity of KRAS mutant lung adenocarcinomas for therapeutic discovery* Kate Sutherland, The Walter and Eliza Hall Institute of Medical Research, Melbourne, VIC, Australia
5:25 p.m.-5:45 p.m.	Speaker panel discussion
5:45 p.m.	EVENING OFF / DINNER ON OWN

TUESDAY, DECEMBER 11

7:00 a.m.-8:00 a.m.	BREAKFAST Sapphire Northwest Foyer and Sapphire ABEF
8:00 a.m.-9:25 a.m.	PLENARY SESSION 4: TARGETING KRAS: IMMUNOTHERAPY AND IMMUNOTARGETS Sapphire IJMN Session Chair: Karen M. Cichowski , Harvard Medical School, Brigham & Women's Hospital, Boston, MA
8:00 a.m.-8:25 a.m.	T-cells targeting mutated RAS—clinical trials James C. Yang, National Cancer Institute, Bethesda, MD
8:25 a.m.-8:50 a.m.	The interplay between RAS/MAPK signaling and tumor immunology Priti S. Hegde, Genentech, Inc., South San Francisco, CA
8:50 a.m.-9:05 a.m.	Antipeptide-HLA (TCR-like) antibodies specific for the KRAS G12V neoantigen* Ben Kiefel, Affinity Biosciences, Melbourne, VIC, Australia
9:05 a.m.-9:25 a.m.	Speaker panel discussion
9:25 a.m.-9:40 a.m.	BREAK Sapphire Northwest Foyer

**Short talk from proffered abstract*

CONFERENCE PROGRAM

9:40 a.m.-11:20 a.m.	PLENARY SESSION 5—PART I: TARGETING KRAS AND KRAS-EFFECTOR COMPLEXES Sapphire IJMN Session Chair: Frank McCormick , UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
9:40 a.m.-10:05 a.m.	Molecular mechanisms that regulate Raf kinase signaling Deborah K. Morrison, National Cancer Institute at Frederick, Frederick, MD
10:05 a.m.-10:30 a.m.	Targeting K-Ras directly Kevan M. Shokat, University of California, San Francisco, San Francisco, CA
10:30 a.m.-10:55 a.m.	Insight towards therapeutic susceptibility of KRAS mutant cancers from MRTX1257, a novel KRAS G12C mutant-selective small-molecule inhibitor James G. Christensen, Mirati Therapeutics, San Diego, CA
10:55 a.m.-11:20 a.m.	Unlocked groove—developing covalent inhibitors of KRAS^{G12C} J. Russell Lipford, Amgen, Department of Oncology Research, Thousand Oaks, CA
11:20 a.m.- 11:35 a.m.	BREAK Sapphire Northwest Foyer
11:35 a.m.- 1:00 p.m.	PLENARY SESSION 5—PART II: TARGETING KRAS AND KRAS-EFFECTOR COMPLEXES Sapphire IJMN Session Chair: Frank McCormick , UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
11:35 a.m.-12:00 p.m.	Preventing KRAS processing Frank McCormick
12:00 p.m.-12:25 p.m.	Leveraging RAF dimer inhibitors to target RAS mutant tumors Shiva Malek, Genentech, Inc., South San Francisco, CA
12:25 p.m.-12:40 p.m.	Selective contribution of the SHOC2 phosphatase complex to ERK pathway dynamics highlights its potential as a therapeutic target* Isabel Boned Del Rio, University College London, Cancer Institute, London, United Kingdom
12:40 p.m.-1:00 p.m.	Speaker panel discussion
1:00 p.m.-2:30 p.m.	FREE TIME / LUNCH ON OWN

**Short talk from proffered abstract*

CONFERENCE PROGRAM

2:30 p.m.-5:10 p.m.	PLENARY SESSION 6: IDENTIFYING NEW VULNERABILITIES AND NEW THERAPIES Sapphire IJMN Session Chair: Karen Cichowski , Harvard Medical School, Brigham & Women's Hospital, Boston, MA
2:30 p.m.-2:55 p.m.	Developing therapies for Ras-driven cancers Karen Cichowski
2:55 p.m.-3:20 p.m.	Oncogenic Ras-dependent tumor cell vulnerabilities Dafna Bar-Sagi, New York University Medical Center, New York, NY
3:20 p.m.-3:45 p.m.	Pancreatic cancer models and medicine David A. Tuveson, Cold Spring Harbor Laboratory Cancer Center, Cold Spring Harbor, NY
3:45 p.m.- 4:10 p.m.	Targeting KRAS mutant cancers Jeffery A. Engelman, Novartis, Cambridge, MA
4:10 p.m.-4:35 p.m.	Context-dependent role of Kras in GI malignancies Prasenjit Dey, The University of Texas MD Anderson Cancer Center, Houston, TX
4:35 p.m.-4:50 p.m.	Combinations with CDK4/6 inhibitors to treat cancers with mutations in both KRAS and CDKN2A* Sean Buchanan, Eli Lilly, Indianapolis, IN
4:50 p.m.-5:10 p.m.	Speaker panel discussion
5:25 p.m.-7:25 p.m.	POSTER SESSION B / RECEPTION Sapphire ABEF
7:25 p.m.	EVENING OFF / DINNER ON OWN

WEDNESDAY, DECEMBER 12

7:30 a.m.-8:30 a.m.	BREAKFAST Sapphire Northwest Foyer and Sapphire ABEF
8:30 a.m.-10:45 a.m.	PLENARY SESSION 7: SYSTEMS APPROACHES Sapphire IJMN Session Chair: Shiva Malek , Genentech, Inc., South San Francisco, CA
8:30 a.m.-8:55 a.m.	Systematic interrogation of KRAS in cancer William C. Hahn, Dana-Farber Cancer Institute, Boston, MA

**Short talk from proffered abstract*

CONFERENCE PROGRAM

8:55 a.m.-9:20 a.m.	Global proteomics reveals the context-dependence of K-Ras signaling Kevin M. Haigis, Beth Israel Deaconess Medical Center, Boston, MA
9:20 a.m.-9:45 a.m.	Dissecting the playbook of cancer: Genomic analysis of 100,000 human tumors reveals elaborate patterns of activation of the RTK-RAS-MAPK pathway Gerard Manning, Genentech, South San Francisco, CA
9:45 a.m.-10:10 a.m.	Genetic approaches for testing candidate drug targets for Ras-induced tumorigenesis in vivo Kevin M. Shannon, University of California, San Francisco, San Francisco, CA
10:10 a.m.-10:25 a.m.	Combinatorial knockout of RA1GDS1 and RhoA leads to lethality in KRAS-driven non-small cell lung cancer* Kaja Kostyrko, University of California, San Francisco, San Francisco, CA
10:25 a.m.-10:45 a.m.	Speaker panel discussion
10:45 a.m.-11:00 a.m.	BREAK Sapphire Northwest Foyer
11:00 a.m.-12:35 p.m.	PLENARY SESSION 8: PERSPECTIVES: OPPORTUNITIES FROM BENCH TO CLINIC Sapphire IJMN Session Chair: Gideon Bollag , Plexxikon, Berkeley, CA
11:00 a.m.-11:25 a.m.	Interplay between RAF inhibitors and RAS Ying Zhang, Plexxikon, Berkeley, CA
11:25 a.m.-11:50 a.m.	Development of effective therapies for neurofibromatosis type 1 and other pediatric RAS-driven tumors Brigitte C. Widemann, National Cancer Institute, Bethesda, MD
11:50 a.m.- 12:15 p.m.	Biochemical and structural analysis of the neurofibromin (NF1) protein and a potential role for protein destabilization in Rasopathy diseases* Dominic Esposito, Frederick National Laboratory for Cancer Research, Frederick, MD
12:15 p.m.-12:35 p.m.	Speaker panel discussion
12:35 p.m.	CLOSING REMARKS

**Short talk from proffered abstract*