

**Genetic Syndromes of the Ras/MAPK Pathway:
From Bedside to Bench and Back**
August 1-2, 2009 in Berkeley, CA

SCHEDULE

Saturday – August 1, 2009

- 7:00 - 8:00 am** **REGISTRATION** (atrium) and **BREAKFAST** (foyer and quarterdeck)
- 8:00 - 9:00 am** **Welcome and Keynote Addresses** (angel and belvedere ballrooms)
- 8:00 - 8:05 am **Welcoming Comments and Introduction**
Katherine Rauen and Lisa Schoyer
- 8:05 - 8:30 am **The Road Less Traveled: Our Journey on the Ras/MAPK Pathway**
Advocates and Self-Advocates, *NSSG, CSFN, ICSSG, CFC Int'l, NFInc, CTF*
- 8:30 - 9:00 am **New Perspectives on an Ancient Pathway**
Frank McCormick, *University of California San Francisco*

SESSION I

9:00 - 10:15 am	Clinical Consequences of Molecular Alterations (10m+ 5m discussion) Moderator: Angela Lin, <i>MassGeneral Hospital for Children</i>
------------------------	---

- 9:00 - 9:15 am **Clinical Features of Noonan Syndrome**
Judith E. Allanson, *Children's Hospital Eastern Ontario*
- 9:15 - 9:30 am **Neurofibromatosis 1 and Legius Syndromes**
David Stevenson, *University of Utah Medical Center*
- 9:30 - 9:45 am **Costello Syndrome**
Karen W. Gripp, *Alfred I. duPont Hospital for Children*
- 9:45 - 10:00 am **Cardio-Facio-Cutaneous Syndrome**
Giovanni Neri, *Universita Cattolica del S. Cuore*
- 10:00 - 10:15 am **Phenotypic Overlap and Molecular Advances: What to Call a Syndrome in the Modern Era**
John C. Carey, *University of Utah Medical Center*

BREAK 10:15 - 10:30 am (foyer and quarterdeck)

SESSION II

10:30 - 12:10 pm	Biochemical Properties and Function of Altered Proteins: Perturbation of the Pathway (15m+ 5m discussion) Moderator: Eric Legius, <i>Catholic University Leuven</i>
-------------------------	---

- 10:30 - 10:50 am **Biochemistry and Function of Neurofibromin and SPRED1**
Eric Legius, *Catholic University Leuven*
- 10:50 - 11:10 am **Biochemical and Functional Properties of SHP2**
Marco Tartaglia, *Istituto Superiore di Sanità*
- 11:10 - 11:30 am **Germline RAS Mutations Associated with Ras/MAPK Pathway Syndromes**
Suzanne Schubert, *University of California Los Angeles*
- 11:30 - 11:50 am **Gain and Loss of Function Mutants Can Cause NS: SOS1 and RAF1**
Amy E. Roberts, *Children's Hospital Boston*
- 11:50 - 12:10 pm **BRAF and MEK Mutations in CFC Syndrome**
Katherine A. Rauen, *University of California San Francisco*

LUNCH BREAK 12:10 - 1:15 pm (lounge, restaurant, patio)

**Genetic Syndromes of the Ras/MAPK Pathway:
From Bedside to Bench and Back**
August 1-2, 2009 in Berkeley, CA

SCHEDULE

Saturday – August 1, 2009

SESSION III

1:15 - 3:15 pm	Pre-Clinical Modeling of Ras/MAPK Pathway Syndromes (15m+ 5m discussion) Moderator: Bruce D. Gelb, <i>Mount Sinai School of Medicine</i>
-----------------------	--

1:15 - 1:35 pm

Preclinical Testing in Genetically Engineered Mouse Models
Kevin Shannon, *University of California San Francisco*

1:35 - 1:55 pm

Mouse Models of Neurofibromatosis-1 Optic Gliomas: From Cage to Clinic
David H. Gutmann, *Washington University*

1:55 - 2:15 pm

Modeling the Effects of Oncogenic *BRAF* in Genetically Engineered Mice
Martin McMahon, *University of California San Francisco*

2:15 - 2:35 pm

Modeling Genetic Syndromes of the Ras/MAPK Pathway in Mice
Mariano Barbacid, *Spanish National Cancer Research Center*

2:35 - 2:55 pm

Mice with Endogenous Expression of *HrasG12V* Have Developmental Defects Consistent with Costello Syndrome
James Fagin, *Memorial Sloan-Kettering Cancer Center*

2:55 - 3:15 pm

Animal Models to Study the Effects of Ras/MAPK Signals on Skin and Hair Development Provide a Novel Platform for Studying Biomarkers
Benjamin Yu, *University of California San Diego*

BREAK 3:15 - 3:30 pm (foyer and quarterdeck)

SESSION IV

3:30 - 5:25 pm	Pre-Clinical Modeling - <i>continued</i> (15m+ 5m discussion) ----- Application of New Technologies (20m + 5m discussion) Moderator: Yoko Aoki, <i>Tohoku University School of Medicine</i>
-----------------------	--

3:30 - 3:50 pm

Animal Models of Human Ras/MAPK syndromes
Ben G. Neel, *Ontario Cancer Institute*

3:50 - 4:10 pm

Mouse Models for Noonan Syndrome and LEOPARD Syndrome
Bruce D. Gelb, *Mount Sinai School of Medicine*

4:10 - 4:35 pm

Genetic Networks and Control of Cancer Susceptibility
Allan Balmain, *University of California San Francisco*

4:35 - 5:00 pm

Clinical Proteomic Approaches to Identify Biomarkers for Ras/MAPK Disorders
Richard Drake, *Eastern Virginia Medical School*

5:00 - 5:25 pm

Genetics and Stage Specificity of Drug Response in AML
Garry P. Nolan, *Stanford University School of Medicine*

6:00 - 7:30 pm

BANQUET BUFFET DINNER (quarterdeck, patio)
open to registered symposium attendees

7:30 - 9:30 pm

POSTER SESSION (foyer, patio, lounge)
symposium attendees and families (NS, CS, CFC, NF)

**Genetic Syndromes of the Ras/MAPK Pathway:
From Bedside to Bench and Back**
August 1-2, 2009 in Berkeley, CA

SCHEDULE

Sunday – August 2, 2009

SESSION V

7:00 - 8:00 am

BREAKFAST (foyer and quarterdeck)

8:00 - 9:40 am

Potential Therapeutic Options: Modulating the Pathway (15m+ 5m discussion)
Moderator: Martin Zenker, *University of Erlangen-Nuremberg*

8:00 - 8:20 am

Raf Pathway Inhibitors: Selectivity Matters
Gideon Bollag, *Plexxikon Inc.*

8:20 - 8:40 am

Advances in the Development of MEK Inhibitors for Pharmacological Intervention of the RAS-MAP Kinase Pathway
Judith Sebolt-Leopold, *Oncovera Therapeutics, Inc.*

8:40 - 9:00 am

Therapeutic Potential of Farnesyltransferase Inhibitors
Jackson Gibbs, *AstraZeneca*

9:00 - 9:20 am

Molecular and Cellular Mechanisms Underlying the Learning Disabilities Associated with Disruptions of Ras/MAPK Signaling
Alcino Silva, *University of California Los Angeles*

9:20 - 9:40 am

Cardio-facio-cutaneous Syndrome Alleles are Active During Zebrafish Development and are Sensitive to Small Molecule Inhibitors
Elizabeth Patton, *Edinburgh Cancer Research Centre*

BREAK 9:40 - 9:55 am (foyer and quarterdeck)

SESSION VI

9:55 - 11:35 am

Moving Forward: Treating Genetic Syndromes (20m+ 5m discussion)
Moderator: David Viskochil, *University of Utah Medical Center*

9:55 - 10:20 am

Clinical Trials for Tuberous Sclerosis Complex
Elizabeth A. Thiele, *MassGeneral Hospital for Children*

10:20 - 10:45 am

A Clinical Trial Strategy for Children with Hutchinson-Gilford Progeria Syndrome
Mark W. Kieran, *Dana Farber Cancer Institute*

10:45 - 11:10 am

Development of Treatments for NF1
Bruce R. Korf, *University of Alabama*

11:10 - 11:35 am

Fragile X: A Time for Targeted Treatments
Randi J. Hagerman, *University of California Davis*

11:35 - 12:30 pm

Wrap-Up and Action Items--- Towards Clinical Trials
Moderators and Speakers: Roger Packer and Teri Melese

- **Ras/MAPK Pathway from Beside to Bench and Back: Towards Clinical Trials**
Roger Packer, *Children's National Medical Center*
- **Aligning Interests Between the Public and Corporate Sectors to Advance Rare Disease Research**
Teri Melese, *University of California San Francisco*

Panelists: Chairs, Keynote, Moderators, NIH Participants
Symposium Participants: Open Discussion

12:30 pm

BOX LUNCH and ADJOURN