**SUNDAY**

4:00 pm - 9:00 pm  Arrival and Check-in *(Check-in Desk Closed 6:00 pm - 7:45 pm)*

6:00 pm  Dinner

7:30 pm - 7:40 pm  Welcome / Introductory Comments by GRC Site Staff

7:40 pm - 9:30 pm  **PLACODES: Development and Function**

Discussion Leader: **Marianne Bronner-Fraser** (California Institute of Technology, Pasadena, USA)

7:40 pm - 8:05 pm  **Gerhard Schlosser** (National University of Ireland, Galway, Ireland)
"Sense and sensibility - induction, specification and differentiation of cranial placodes"

8:05 pm - 8:15 pm  Discussion

8:15 pm - 8:40 pm  **Andrea Streit** (King’s College London, UK)
"Cell fate decisions in the cranial sensory nervous system"

8:40 pm - 8:50 pm  Discussion

8:50 pm - 9:05 pm  **Linda Barlow** (University of Colorado, Denver, USA)
"Regulation of taste bud progenitor cell development by Wnt/B-catenin signaling"

9:05 pm - 9:10 pm  Discussion

9:10 pm - 9:25 pm  **Jean-Pierre Saint Jeannet** (University of Pennsylvania, Philadelphia USA)
"Attenuation of Sox9 function in the inner ear results in vestibular defects"

9:25 pm - 9:30 pm  Discussion

**MONDAY**

7:30 am - 8:30 am  Breakfast

9:00 am - 12:30 pm  **NEURAL CREST CELLS: Development, Function and Disease**

Discussion Leader: **Paul Trainor** (Stowers Institute for Medical Research, Kansas City, USA)

9:00 am - 9:25 am  **Marianne Bronner-Fraser** (California Institute of Technology, Pasadena, USA)
"Formation of the cranial neural crest"

9:25 am - 9:40 am  Discussion

9:40 am - 9:55 am  **Mamoru Ishii** (University of Southern California, Los Angeles, USA)
"Sustainable stem cell potential of murine cranial neural crest"

9:55 am - 10:00 am  Discussion

10:00 am  Coffee Break / Group Photo
10:30 am - 10:45 am Tatjana Sauker-Spengler (California Institute of Technology, Pasadena, USA)
"Polycomb Repressive Complex 1 fine-tunes the regulatory network during early steps of neural crest cell formation"

10:45 am - 10:50 am Discussion

10:50 am - 11:15 am Roberto Mayor (University College, London, UK)
"Collective migration of neural crest cells"

11:15 am - 11:25 am Discussion

11:25 am - 11:40 am Gage Crump (University of Southern California, Los Angeles, USA)
"Histone 3.3-dependent chromatine remodeling is essential for ectomesenchyme potential of the cranial neural crest"

11:40 am - 11:45 am Discussion

11:45 am - 12:00 pm Michela Ori (University of Pisa, Pisa, Italy)
"5-HT2B receptor activity modulates morphogenenesis and patterning of the mandibular arch"

12:00 pm - 12:05 pm Discussion

12:05 pm - 12:20 pm Daisuke Sakai (Stowers Institute for Medical Research, Kansas City, USA)
"Prevention of Treacher Collins syndrome craniofacial anomalies through inhibition of oxidative damage in neural crest cells"

12:20 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 5:30 pm Poster Session

5:30 pm - 7:30 pm DEVELOPMENTAL PATTERNING AND EVOLUTION
Discussion Leader: Chuck Kimmel (University of Oregon, Eugene, USA)

5:30 pm - 5:45 pm Melinda Modrell (University of Cambridge, Cambridge, UK)
"A sixth sense: the development of vertebrate photoreceptors"

5:45 pm - 5:50 pm Discussion

5:50 pm - 6:05 pm Shannon Fisher (University of Pennsylvania, Philadelphia, USA)
"Contribution of neural crest cells to the zebrafish skeleton"

6:05 pm - 6:10 pm Discussion

6:10 pm - 6:35 pm Michael Depew (King’s College London, UK)
"Cephalic ectodermal competence factors establish upper jaw pattern and morphology"

6:35 pm - 6:40 pm Discussion

6:40 pm - 6:55 pm Joy Richman (University of British Columbia, Vancouver, Canada)
"Molecular control of tooth replacement in reptiles"

6:55 pm - 7:00 pm Discussion
7:00 pm - 7:25 pm  Stan Lyonnet (Université Paris Descartes, Paris, France)  
"Disruption of long-distance highly conserved non coding sequences at the SOX9 locus, in craniofacial neurocristopathies"

7:25 pm - 7:30 pm  Discussion

8:00 pm  Dinner

TUESDAY

7:30 am - 8:30 am  Breakfast

9:00 am - 12:30 pm  TISSUE INTERACTIONS AND MORPHOGENESIS
Discussion Leader: Andrea Streit (University College London, UK)

9:00 am - 9:25 am  Irma Thesleff (University of Helsinki, Helsinki, Finland)  
"Placodes of teeth and other ectodermal appendages: regulation by signal pathways"

9:25 am - 9:40 am  Discussion

9:40 am - 9:55 am  Xuiping Wang (Harvard University, Boston, USA)  
"Molecular regulation of supernumerary tooth formation"

9:55 am - 10:00 am  Discussion

10:00 am  Coffee Break

10:30 am - 10:55 am  Eldad Tzahor (Weizmann Institute of Science, Rehovot, Israel)  
"Neural crest - mesoderm interactions and the role of p53"

10:55 am - 11:05 am  Discussion

11:05 am - 11:30 am  Yang Chai (University of Southern California, Los Angeles, USA)  
"Cranial neural crest and myogenic progenitor interactions in tongue development"

11:30 am - 11:40 am  Discussion

11:40 am - 11:55 am  Alon Kahana (University of Michigan, Ann Arbor, USA)  
"Retinoic acid regulates a balance between Pitx2 and Pitx3 expression to promote morphogenesis of extraocular muscles in zebrafish"

11:55 am - 12:05 pm  Discussion

12:05 pm - 12:20 pm  Abigail Tucker (Kings College London, UK)  
"Mouse models of conductive hearing loss"

12:20 pm - 12:30 pm  Discussion

12:30 pm  Lunch

1:30 pm - 4:00 pm  Free Time

4:00 pm - 5:30 pm  Poster Session

5:30 pm - 7:30 pm  SIGNALING AND COMMUNICATION
Discussion Leader: Michael Depew (King’s College, London, UK)

5:30 pm - 5:55 pm  Fred Relaix (UPMC-Paris VI, Paris, France)
"Analysis of Pax3 and Pax7 functions and downstream genetic networks in craniofacial development"

5:55 pm - 6:05 pm  Discussion

6:15 pm - 6:30 pm  Yukiko Kurihara (University of Toyko, Japan)
"Non-coding RNA regulation of endothelin signaling in branchial arch development"

6:30 pm - 6:35 pm  Discussion

6:35 pm - 7:00 pm  Filippo Rijli (Friedrich Miescher Institute, Basel, Switzerland)
"Mapping the face in the somatosensory brain stem"

7:00 pm - 7:10 pm  Discussion

7:10 pm - 7:25 pm  Cathy Krull (University of Michigan, Ann Harbor, USA)
"Development of the Brainstem Taste Relay Nucleus"

7:25 pm - 7:30 pm  Discussion

8:00 pm  Dinner

**WEDNESDAY**

7:30 am - 8:30 am  Breakfast

9:00 am - 12:30 pm  **CRANIOFACIAL SYNDROMES AND DISORDERS: MODELS AND GENETICS I**

Discussion Leader: Andrew Wilkie (Weatherall Institute, Oxford, UK)

9:00 am - 9:25 am  Danny Huylebroeck (University of Leuven, Belgium)
"Conditional Zfhx1b mutant mice for studying Mowat-Wilson syndrome"

9:25 am - 9:35 am  Discussion

9:35 am - 9:50 am  Yuji Mishina (University of Michigan, Ann Arbor, USA)
"Smad-dependent BMP signaling directs cranial neural crest cell fate towards chondrocytes to cause craniosynostosis"

9:50 am - 10:00 am  Discussion

10:00 am  Coffee Break

10:30 am - 11:00 am  Gary Landreth (Case Western University, Cleveland, USA)
"Perturbation of the ERK-MAP Kinase pathway in Neuro-cardio-facial cutaneous syndromes"

11:00 am - 11:10 am  Discussion

11:10 am - 11:25 am  Heiko Peters (University of Newcastle, Newcastle upon Tyne, UK)
"Inactivation of the Cornelial da Lange syndrome locus cohesin-loading protein Nipb1 affects proximal regions of neural crest cell-derived skull elements"

11:25 am - 11:30 am  Discussion

11:30 am - 11:45 am  Pilar Cejudo-Martín (Burnham Institute, San Diego, USA)
"Disruption of the podosome adaptor protein TKS4 (SH3PXD2B) causes the craniofacial abnormalities of Frank-Terr Harr syndrome"
11:45 am - 11:50 am  Discussion
11:50 am - 12:05 pmMaria Mansilla (University of Iowa, Iowa City, USA)
"The role of MAFB and ABCA4 in the etiology of cleft lip an palate"
12:05 pm - 12:10 pm Discussion
12:10 pm - 12:25 pmVictoria Leitch (Women and Children’s Health Research Institute, Adelaide, Australia)
"The molecular mechanism of craniosynostosis: localized downregulation of RBP4 and its role in premature suture fusion"
12:25 pm - 12:30 pm Discussion
12:30 pm Lunch
1:30 pm - 4:00 pm Free Time
4:00 pm - 5:30 pm Poster Session
5:30 pm - 7:30 pmCRANIOFACIAL SYNDROMES AND DISORDERS: MODELS AND GENETICS II
Discussion Leader: Rob Maxson (University of Southern California, Los Angeles, USA)
5:30 pm - 6:00 pm Max Muenke (National Institutes of Health, Bethesda, USA)
"Holoprosencephaly: the genotype predicts the phenotype"
6:00 pm - 6:10 pm Discussion
6:10 pm - 6:25 pm Ralph Marcucio (University of California San Francisco, USA)
"Mechanisms underlying covariation of the brain and face"
6:25 pm - 6:35 pm Discussion
6:35 pm - 6:50 pm Samantha Brugmann (Stanford University, Stanford, USA)
"Primary cilia provide a common etiology for a spectrum of midfacial defects"
6:50 pm - 6:55 pm Discussion
6:55 pm - 7:20 pm Andy Copp (Institute Child Health, London, UK)
"Mechanisms of cranial neural tube closure - normal and abnormal"
7:20 pm - 7:30 pm Discussion
7:30 pm - 8:00 pm Business Meeting
(Nominations for the next Vice Chair; Fill out Conference Evaluation Forms; Discuss future Site & Scheduling preferences; Election of the next Vice Chair)
8:00 pm Dinner
THURSDAY
7:30 am - 8:30 am Breakfast
9:00 am - 12:30 pm STEMS CELLS, TISSUE ENGINEERING AND REGENERATION
Discussion Leader: **Irma Thesleff** (University of Helsinki, Finland)

9:00 am - 9:20 am  **Brigitte Arduini** (Rockefeller University, New York, USA)  
"Neural crest differentiation from human ES and iPS cells"

9:20 am - 9:25 am  Discussion

9:25 am - 9:50 am  **Jennifer Elisseff** (Johns Hopkins University, Baltimore, USA)  
"Tissue engineering and repair of craniofacial anomalies"

9:50 am - 10:00 am  Discussion

10:00 am  Coffee Break

10:30 am - 10:55 am  **Wayne Grayson** (Johns Hopkins University, Baltimore, USA)  
"Craniofacial and Orthopaedic Tissue Engineering"

10:55 am - 11:05 am  Discussion

11:05 am - 11:30 am  **Pam Yelick** (Tufts Univeristy, Boston, USA)  
"Tooth and Dare"

11:30 am - 11:40 am  Discussion

11:40 am - 12:05 pm  **Paul Sharp** (King’s College London, UK)  
"Polycomb complex proteins regulate rodent incisor mesenchymal stem cells"

12:05 pm - 12:10 pm  Discussion

12:10 pm - 12:25 pm  **Hidemitsu Harada** (Iwate University, Iwate, Japan)  
"Live cell imaging of cervical loop epithelium in HERS formation process"

12:25 pm - 12:30 pm  Discussion

12:30 pm  Lunch

1:30 pm - 4:00 pm  Free Time

4:00 pm - 5:30 pm  Poster Session

5:30 pm - 7:30 pm  **KEYNOTES: EVOLUTION, DEVELOPMENT AND DISEASE**

Discussion Leader: **Paul Trainor** (Stowers Institute, Kansas City, USA)

5:30 pm - 6:15 pm  **Chuck Kimmel** (University of Oregon, Eugene, USA)  
"Mechanisms of Craniofacial Variation and Evolution"

6:15 pm - 6:30 pm  Discussion

6:30 pm - 7:15 pm  **Andrew Wilkie** (Weatherall Institute, Oxford, UK)  
"Future directions for research into the craniosynostoses"

7:15 pm - 7:30 pm  Discussion

8:00 pm  Dinner

**FRIDAY**

7:30 am - 8:30 am  Breakfast
9:00 am Depart