



# INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY Three Decades of Innovation

15<sup>th</sup> International Congress

September 10-14, 2013 • Jackson Hole, Wyoming

[www.iscfs2013.org](http://www.iscfs2013.org)

**Registration Brochure**

## WELCOME FROM THE PRESIDENT

I welcome you to attend the 15th Congress of the International Society of Craniofacial Surgery in Jackson Hole, Wyoming in September. Our record submission of abstracts for this event promises a program combining the best new work in research and clinical areas related to craniofacial surgery. Our Pre-Congress Craniofacial/Neurosurgery Symposium, a number of special panels, the award of the Tessier Medal and award for the best paper presented, our Keynote Speaker, and more than 300 free papers and posters will insure that this congress will offer cutting edge work with innovative new thinking. Social activities to be enjoyed by the whole family - all in the midst of spectacular scenery in the Grand Tetons - will make this the best meeting you will attend this year.



The 15th Congress will be held in the Grand Teton National Park, largely recognized as the most scenic mountain range in the lower 48 states. Jackson Hole in early September combines warm days with cool evenings, and generally sunny weather. Many exciting outdoor activities are waiting for you to explore and enjoy. Our dates coincide with the 29th Annual Jackson Hole Fall Arts Festival, widely recognized as one of the premier cultural events in the Rocky Mountain West. Thousands of art enthusiasts are drawn each year to experience the diverse artwork and breathtaking natural surroundings that make Jackson Hole a leading cultural center. We encourage you to consider an extended stay in the region to visit Yellowstone National Park, just 60 miles away by car.

Getting to Jackson Hole is easy on five airlines through seven major US cities. Five marvelous hotels with a broad range of accommodation types and prices will make your stay with us most comfortable. Our venue will be Teton Village, situated 11 miles from Jackson, with easy public access to town - an authentic western community with a flavor all its own. All hotels are no more than a five minute walk from our general session meeting hall.

I hope you will make plans early to travel to the Wild West and join us for a superb educational and social experience - in a casual setting. Please, no suits or ties or evening wear!

A handwritten signature in black ink that reads "Scott P. Bartlett MD". The signature is written in a cursive, flowing style.

Scott P. Bartlett, MD  
ISCFS President





## **PRE-CONGRESS SYMPOSIUM: CONTROVERSY AND CONSENSUS IN CRANIOSYNOSTOSIS AND CRANIAL VAULT SURGERY**

Co-Chairs: *Scott Bartlett, MD & Stephen Beals, MD*

The 2013 Pre-Congress Symposium will present new perspectives and protocols for managing patients from birth to adulthood with emphasis on craniosynostosis and cranial vault surgery to tackle persistent problems, especially those common to craniofacial surgeons and neurosurgeons. We will discuss evaluation and treatment of increased intracranial pressure from the perspective of both the neurosurgeon and the craniofacial surgeon. Increasing quality and decreasing risk will be examined by looking at complication avoidance and use of blood transfusion and CT. Management options for reconstructing skull defects will be surveyed as we look at pros and cons of minimally invasive cranial vault surgery.

### **ISCFS Program Committee**

Nivaldo Alonso, MD – Brazil  
Eric Arnaud, MD – France  
Stephen B. Baker, MD, DDS – United States  
Scott P. Bartlett, MD – United States  
Stephen Beals, MD – United States  
Steven R. Buchman, MD – United States  
Juan Martin Chavanne, MD – Argentina  
Yu-Ray Chen, MD – Taiwan  
Michael Cunningham, MD, PhD – United States  
Jeffrey Fearon, MD – United States  
Christopher R. Forrest, MD – Canada  
Mirko S. Gilardino, MD – Canada  
Dov C. Goldenberg, MD, PhD – Brazil  
Joseph S. Gruss, MD – United States  
Craig Hobar, MD – United States  
William Y. Hoffman, MD – United States  
Larry Hollier, MD – United States  
Richard A. Hopper, MD – United States

Joseph Losee, MD – United States  
Anil Madaree, MD – South Africa  
Xiongzhen Mu, MD – China  
John A. Persing, MD – United States  
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Gary F. Rogers, MD – United States  
Kaneshige Satoh, MD – Japan  
Ramesh Sharma, MD – India  
Davinder J. Singh, MD – United States  
Henry Spinelli, MD – United States  
Sherard A. Tatum, MD – United States  
Jesse A. Taylor, MD – United States  
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John van Aalst, MD – United States  
Steven Wall, MD – United Kingdom  
S. Anthony Wolfe, MD – United States  
Vincent Yeow, MD – Singapore

### **ISCFS Officers: 2011 - 2013**

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#### **Congress President**

Scott P. Bartlett, MD - United States

## OUR HOST CITY - JACKSON, WYOMING

Jackson, Wyoming is a major gateway for tourists visiting nearby Grand Teton National Park, Yellowstone National Park, and the National Elk Refuge and is host to a number of world-class arts organizations, including the Congressionally-designated National Museum of Wildlife Art, the Grand Teton Music Festival, the Jackson Hole Fall Arts Festival, and the Center for the Arts.

The town is often erroneously referred to as “Jackson Hole”, the valley in which it is located. The hole - or valley - is 48 miles long and for the most part, six to eight miles wide, embracing an area of approximately 400 square miles. It lies a few miles west of the Continental Divide and occupies the central portion of the headwaters of the Snake River.

With so many mountain ranges nearby, Jackson is a hub of outdoor recreational opportunity. Wildlife watching is easy here: birds, elk, deer, moose, bear, fox, lynx, coyotes and many other small mammals can be found throughout the valley. The large arches of shed elk antlers at the four entrances to the town square are a popular attraction.

Situated twelve miles to the north of Jackson is Teton Village, offering a variety of hotels, restaurants, bars, cafes, and shopping. Located near one of the entrances to Grand Teton National Park, Teton Village serves as the perfect starting point to any tour of Wyoming’s national parks. With public transportation available between Jackson and Teton Village, visitors staying in either location are well-connected to the activities and attractions offered throughout Jackson Hole.

The 15th Biennial Congress will be held entirely within Teton Village. No hotel is more than five minutes from the Walk Festival Hall, our primary meeting venue.



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## HOTEL ACCOMMODATIONS

### Four Seasons Resort

Room Rate: \$375

### Snake River Lodge & Spa

Deluxe Room: \$279

Premium with Fireplace: \$319

Two-Bedroom Condominium: \$599

### Hotel Terra

Room Rate: \$269

### Teton Mountain Lodge & Spa

Room Rate: \$269

### Inn at Jackson Hole

Single/Double: \$199

Triple: \$209

Quad: \$219

Room Reservations - [www.iscfs2013.org](http://www.iscfs2013.org)



## PROGRAM SCHEDULE

The scientific program is correct at the time of printing; however, the Program Committee reserves the right to alter the schedule as necessary. Please visit [www.iscfs2013.org](http://www.iscfs2013.org) for an up-to-date program schedule.

### Tuesday, 10 September

7:00 - 5:00 pm Registration  
7:00 - 8:00 am Continental Breakfast

#### PRE-CONGRESS SYMPOSIUM: CONTROVERSY AND CONSENSUS IN CRANIOSYNOSTOSIS AND CRANIAL VAULT SURGERY

8:30 - 9:45 am **How is Intracranial Pressure Defined?**  
Co-chairs: *Hal Rekate, MD & John Persing, MD*  
Panelists: *Brent Collett, PhD*  
*Steven Wall, MD*  
*Steven Newman, MD*

9:45 - 11:00 am **How is Intracranial Pressure Managed?**  
Co-chairs: *Stephen Dover, FDSRCS, FRCS & Jay Storm, MD*

11:00 - 11:30 am Coffee Break

11:30 am - 12:30 pm **How Do We Improve Quality and Reduce Risk in Craniosynostosis Surgery?**  
Co-chairs: *Jeffrey Fearon, MD & Paul Stricker, MD*  
Panelists: *Jack Yu, MD*  
*Marcin Czervinski, MD*  
*Franklyn Cladis, MD*  
*Kevin Cook, MD*  
*Rachel Ruotolo, MD*  
*Jennifer Rhodes, MD*

12:30 - 1:30 pm Lunch

1:30 - 2:30 pm **What are the Best Treatment Choices for Skull Defects?**  
Co-chairs: *Davinder Singh, MD & Federico Di Rocco, MD, PhD*  
Panelists: *Matthieu Vinchon, MD, PhD*  
*Stephen Dover, FDSRCS, FRCS*  
*David J. David, MD, FRACS*

2:30 - 3:30 pm **What is the Role of Minimally Invasive Surgery in the Management of Craniosynostosis Surgery?**  
Co-chairs: *Mark Proctor, MD & Irene Mathijsen, MD, PhD*  
Panelists: *Eric Arnaud, MD*  
*Marie-Lise van Veelen, MD*  
*Gray Rogers, MD*

3:30 - 4:00 pm Coffee Break

4:00 - 5:00 pm **What are New Perspectives in Craniosynostosis Surgery?**  
Co-chairs: *Richard Hopper, MD, MS & Richard Hayward, MD*  
Panelists: *Irene Mathijsen, MD*  
*Christopher Forrest, MD*  
*Marie-Lise van Veelen, MD*  
*Jeffrey Fearon, MD*  
*David Dunaway, MD*

5:00 - 5:30 pm Open Forum Discussion

5:30 - 7:00 pm **Symposium Reception**

8:00 - 10:00 pm ISCFS Council Meeting

## Wednesday, 11 September

- 7:00 - 6:00 pm Registration
- 7:00 - 8:00 am Continental Breakfast
- 8:00 - 8:15 am **Opening Remarks**  
Scott Bartlett, MD - ISCFS President
- 8:15 - 9:00 am **Eulogies**  
**Daniel Marchac, MD (France)**  
Speaker: Eric Arnaud, MD
- Fernando Ortiz Monasterio, MD (Mexico)**  
Speaker: Fernando Molina, MD
- Joseph Murray, MD, FACS (USA)**  
Speaker: Mutaz Habal, MD, FACS, FRCSC

- 9:00 - 9:45 am **Keynote Address**  
**Some Favorite Rocky Mountain Stories**  
Speaker: Harold J. Stearns

- 9:45 - 10:15 am Coffee Break

- 10:15 am - 12:00 pm **Founders Session**  
Introduction: Scott Bartlett, MD
- What is the Future of Craniofacial Surgery?**  
Speaker: Kenneth E. Salyer, MD
- Craniofacial Surgery: From Spectacular Innovation to Sound Healthcare Delivery**  
Speaker: David J. David, AC, MD, FRCS, FRACS
- Craniofacial Distraction: How It Started and Where It's Going**  
Speaker: Joseph G. McCarthy, MD
- Tessier's Classification of Facial Clefts and the Unfinished Symphony**  
Speaker: S. Anthony Wolfe, MD, FACS, FAAP
- Beyond the Surgery**  
Speaker: Linton Whitaker, MD

- 11:45 am - 1:00 pm Lunch

- 11:45 am - 1:00 pm ASCFS Business Meeting

- 1:00 - 3:00 pm **General Session 1**  
**Hypertelorism, Craniofacial Tumors & Encephaloceles, Rare Craniofacial Clefts**  
Moderators: *Dov Goldenberg, MD, PhD & Bob Havlik, MD*

Presenter: Brian T. Andrews, MD

*Fibrous Dysplasia of the Zygomaticomaxillary Region: Outcomes of Surgical Intervention*

Presenter: Joseph Gruss, MD

*Craniofacial and Head, and Neck Neurofibromatosis: Clinical Classification as an Aid to Surgical Treatment*

Presenter: Dov Goldenberg, MD

*Improvement of Treatment of Facial Arterio-Venous Vascular Malformations by Multiple Embolizations: Outcomes In a Series of 31 Patients*

Presenter: Igor Reshetov, MD

*The Choice of Skull Base Reconstruction Variant in the Treatment of Tumors with Craniofacial Localization*

Presenter: Eiji Miyamoto, MD

*Treatment of Craniomaxillofacial Fibrous Dysplasia in our Department*

Presenter: Sherard Tatum, MD

*Modified Facial Translocation Approach in One Month Old with Skullbase Tumor*

Presenter: Junyi Yang, MD

*Review of Various Surgical Procedures in Radiated Orbit Reconstruction*

Presenter: Mike Moses, BM, BCh, BSc, FRCSEd(Plast)

*Midline Frontonasal Dermoids - A Review of 55 Cases and a Protocol for Treatment*

Presenter: Francesco Gargano, MD, PhD

*Langerhans Cell Histiocytosis in the Pediatric Population: How Should We Treat Isolated Craniofacial Lesions?*

Presenter: Sarah Versnel, MD, PhD

*Complications in Medial Faciotomy*

Presenter: Kenneth L. Fan, BS

*Optimizing the Timing and Technique of Treacher Collins Orbital Malar Reconstruction*

Presenter: Walter Flapper, FRACS(Plast), MASurg(Craniofacial)

*Tessier 0-14 Clefts from Birth to Maturity; A Review*

Presenter: S. Anthony Wolfe, MD, FACS, FAAP

*Rare Craniofacial Clefts and Ageneses*

Presenter: Juan M. Chavanne, MD

*Secondary Correction of HTO Avoiding Problems During Skeletal Mobilization*

Presenter: Jonathan Britto, MB, MD, FRCS(Plast)

*Towards Predictable Aesthetic Change in Hypertelorism Surgery - A Radiologic Study in 18 Patients and 30 Controls*

Presenter: Min Wei, MD

*Our Therapeutic Experience of Orbital Hypertelorism: A Study of 23 Chinese Cases*

Presenter: David J. David, AC, MD, FRCS, FRACS

*Protocol Management and Long Term Outcome of Tessier Clefts 3, 4, 5, 6 and 7*

3:00 - 3:30 pm

Coffee Break

1:00 - 3:00 pm

## **General Session 2**

### **Non-Syndromic Synostosis Part I**

Moderators: *Kant Lin, MD & Juan C. Rodriguez, MD*

Presenter: Matthieu Vinchon, MD, PhD

*Shunt-Induced Craniosynostosis: Diagnosis and Surgical Management*

Presenter: Davinder Singh, MD

*Long Term Outcomes of Early Correction of Sagittal Synostosis Via Endoscopically Assisted Calvarial Synostectomy and Post Surgical Helmeting*

Presenter: Greg Thomas, PhD, FRCS (Plast)

*Raised Intracranial Pressure in Non Syndromic Sagittal Craniosynostosis Following Corrective Surgery*

Presenter: Christopher Forrest, MD, MSc, FRCSC, FACS

*Age-Based Approach to Sagittal Synostosis: Application of Extended Strip Craniectomy (Esc) and Total Cranial Vault Reshaping (TCVR) Techniques*

Presenter: Jacques van der Meulen, MD, PhD

*Can Cognitive Functioning be Predicted by Pre-Operative (CT-Scan) Anomalies in Patients with Trigenocephaly?*

Presenter: Anup Patel, MD, MBA

*Effects of Age at the Time of Surgery on Long-Term Neuropsychological Outcomes in Sagittal Synostosis*

Presenter: Russell Evans, MBBS, FRCA

*Anaesthesia in the Prone Position Can Safely be Used to Facilitate the Complex Surgical Correction of Craniosynostosis. A Series of 300 Consecutive Patients in 15 Years in Oxford, UK*

Presenter: Adam Oppenheimer, MD

*Maternal-Fetal Complications in Craniosynostosis*

Presenter: Steven Wall, MD

*Raised Intracranial Pressure in Untreated Non-Syndromic Sagittal Craniosynostosis: An Eighteen Year Experience in Oxford*

Presenter: MarieLise Van Veelen, MD

*Minimally Invasive Spring-Assisted Correction of Sagittal Suture Synostosis*



Presenter: Federico Di Rocco, MD, PhD  
*The Association of Chiari Malformation Type 1 and Closure of Sagittal Suture*

Presenter: Matthew Hansen, MBBS, FRACS  
*Comparison of Spring Cranioplasty and PI Procedure for Sagittal Synostosis*

5:30 - 9:00 pm

### **Welcome Reception**

## **Thursday, 12 September**

7:00 - 6:00 pm

Registration

7:00 - 8:00 am

Continental Breakfast

8:00 - 8:45 am

### **Ortiz Monasterio Memorial Lecture**

Moderator: Scott Bartlett, MD

9:00 - 10:00 am

### **Concurrent Session 1A**

#### **Basic Science Research**

Moderators: *Steven Buchman, MD, FACS & Cassio Raposo do Amaral, MD, PhD*

Presenter: Lars Evers, MD

*Organ Level Tissue Engineering Using Native Decellularized Microcirculatory Constructs as Vascularized Bioscaffolds*

Presenter: Hyun Duck Nah, MD

*Sustained, Low-Dose rhBMP-2 Delivery Via PLGA Microspheres Provides for Equivalent Osteogenesis and Improved Side-Effect Profile*

Presenter: Darren Smith, MD

*Bioprinting Tissue Engineered Intramembranous Bone Constructs*

Presenter: Derrick Wan, MD

*In Vivo Directed Differentiation of Human Embryonic-Like Pluripotent Cells Into Bone*

Presenter: Armando Uribe-Rivera, DDS

*Predictive Genomics: Validation of a Role for Mirna in the Underdevelopment of the Mandible and Other Craniofacial Structures*

Presenter: Mohammed Alrakan, MD

*Should Trans-Gender Facial Skeletal Donation be Considered for Craniomaxillofacial Transplantation? A Cadaver Study*

Presenter: Mehmet Bozkurt, MD

*Translational Cadaveric Study of Composite Eye and Periorbital Allotransplantation Flap from Rat Model*

Presenter: Xianxian Yang, MD, PhD

*Fgfr2c(C342y/+) Mouse Model of Crouzon Syndrome to Study Craniosynostosis*

Presenter: Maureen Beederman, BA

*Further Defining the Role of Rank/Rankl/Opg Axis in Cranial Suture Biology*

Presenter: Can Ozturk, MD

*Analysis of the Aging of the Nasal Bone and Nasal Pyramid Structures in a Caucasian Population*

9:00 - 10:00 am

### **Concurrent Session 1B**

#### **Craniofacial Orthodontics & Orthognathic Surgery**

Moderators: *Patricia Glick, DMD & Pedro Santiago, DMD*

9:00 - 9:30 am

**PANEL: 3D Computer Assisted Surgical Planning: Opportunities & Challenges. Part One**

Panelists: Patricia Glick, DMD

*The Evolution in Craniofacial Surgical Planning: From the Stone Age to the Sophisticated 3D Digital Era*

Barry Grayson, DDS & Pradip Sheyte, DDS

*Use of Digital Design. A Paradigm Shift in Surgical Planning for Craniofacial Surgery. Preoperative Planning, Diagnosis of the Virtual Patient: Integrating Clinical Data with Static 3D Images.*

Pedro Santiago, DMD & Jeff Marcus, MD

*The Role of the Orthodontist and Surgeon in Computer Aided Surgical Planning*



9:30 - 10:00 am

Presenter: John van Aalst, MD, MA

*Effects of Nasal Alveolar Molding (Nam) on Infant Weight Gain and Timing of Primary Bilateral Cleft Lip Repair*

Presenter: Patricia Glick, DMD

*Early Correction of the Mandible with Uni-Vector Distraction Osteogenesis in Hemifacial Microsomia Patients: Orthodontic Technique for Prevention of Malocclusion and Optimizing Surgical Outcome*

Presenter: Daljit Gill, MSc, FDS, RCS(Orth)

*Facial Bipartition; The Orthodontic Burden of Care*

Presenter: Suguru Kondo, PhD, DDS

*Preoperative Simulation and Predictability for the Facial Asymmetry of Hemifacial Microsomia Pruzansky Grade I*

Presenter: Alvaro Figueroa, DDS, MS

*Virtual Surgical Planning for Orthognathic Surgery*

9:00 - 10:00 am

### **Concurrent Session 1C**

**Panel: Craniofacial Microsomia: Ethics, Embryos, Management and Outcomes**

Moderator: *Michael Cunningham, MD, PhD*

### **Ethical Issues in the Management of Craniofacial Microsomia**

Keynote Speaker: *Cassandra Aspinall, ACSW*

Panelists: Paul Trainor, PhD

*Development of the Branchial Arches, Their Derivatives, and the Correlations to Craniofacial Microsomia*

Carrie Heike, MD, MS

*Efficient Interdisciplinary Management of Children with Craniofacial Microsomia*

Nichola Rumsey, PhD

*Appearance Related Outcomes in Children with Craniofacial Microsomia*

10:00 - 10:30 am

Coffee Break

10:30 am - 12:00 pm

### **Concurrent Session 2A**

#### **Basic Science Research**

Moderators: *James Bradley, MD & John van Aalst, MD, MA*

Presenter: Brendan Alleyne, BS

*Comparing the Efficacy of Deferoxamine or Amifostine Pre-Treatment in the Prevention of Osteoradionecrosis of the Murine Mandible*

Presenter: Sumit Das, MBBS, BSc, FRCA

*Postoperative Serum Albumin Level and Clinical Implications in Pediatric Craniofacial Surgery: A Review of 50 Cases in Oxford, UK*

Presenter: Robert Tovetjarn, MD

*Intellectual Outcome in 29 Adult Patients Born with Craniosynostosis*

Presenter: Amy Xue, MD

*Local Foreign-Body Reaction to Commercial Biodegradable Implants: An In Vivo Animal Study*

Presenter: Michael Hu, MD, MPH, MS

*Healing of Critical Calvarial Defects by Circulating Mesenchymal Stem Cells*

Presenter: Tiffany Lee, BA

*3D Constructs of Human Skeletal Muscle-Derived Cells as a Model of Bone Formation: Osteogenic Differentiation in Response to BMP2*

Presenter: Alex Rottgers, MD

*Application of Laser Capture Microdissection to Craniofacial Biology: Characterization of Anatomically Relevant Gene Expression in the Cranial Sutures*

Presenter: Brendan Alleyne, BS

*The Absolute Quantification of Osteogenic Genes in Rat Calvarial Critical Sized Defects*

Presenter: Kshemendra Senarath, MD

*Deletion of Axin Gene in Mouse Adipose-Derived Stem Cells (MASCS) Promotes Osteogenesis*

Presenter: Sanjay Naran, MD

*Repair of a Complicated Calvarial Defect: Reconstruction of an Infected Wound with Rhbmp-2*

Presenter: Pilar Gordon, DDS

*Transplantation of a Tissue Engineered, Vascularized, Mucosalized Tracheal Homograft in New Zealand White Rabbits. Comparison of Subcutaneous Flap and Rectus Muscle Flaps*

Presenter: Edward Davidson, MA (Cantab), MBBS

*Lacunocanalicular Flow and Distraction Osteogenesis: Theory and Therapeutics*

Presenter: Samintharaj Kumar, MBBS, BDS, MRCS, MFDSRCS, MFDRCSI

*Putative Genes Downstream of Fgfr2 Associated with Coronal Suture Synostosis in a Crouzon Syndrome (C342y) Mouse Model*

Presenter: Steven Buchman, MD

*Acceleration of Regenerate Consolidation Utilizing Pharmacotherapeutics During Mandibular Distraction Osteogenesis*

10:30 am - 12:00 pm

### **Concurrent Session 2B**

#### **Craniofacial Orthodontics & Orthognathic Surgery**

Moderators: *Patricia Glick, DMD & Pedro Santiago, DMD*

10:30 - 11:00 am

**PANEL: 3D Computer Assisted Surgical Planning: Opportunities & Challenges. Part Two**

Panelists: *Virtual Surgical Planning Tools and Splint Construction for Craniofacial Surgery*

Alvaro Figueroa, DDS & John Polley, MD

*Clinical Case: Two Jaw Surgical Correction*

Sean Edwards, MD, DDS

*Clinical Case: Free Flap Design*

11:00 am - 12:00 pm

Presenter: Guy Watts, MBBS, FRACS

*Stability of Single Stage Major Maxillary Advancements in Unilateral Cleft Patients*

Presenter: Shuo Chen, MD

*Short- And Long-Term Changes of Condylar Position After Bilateral Sagittal Split Ramus Osteotomy for Mandibular Advancement Evaluated by Cone-Beam Computed Tomography*

Presenter: Stephen Schendel, DDS, MD

*3D Facial Simulation in Orthognathic Surgery: Efficacy and Accuracy*

Presenter: Eric Stelnicki, MD

*Maxillary Advancement and Mandibular Retraction Using Non-Osteotomy Technique with Bollard Plates*

Presenter: Yang Li, MD

*Maxillomandibular Advancement Surgery for Obstructive Sleep Apnea Syndrome and Long-Term Surgical Stability in Chinese Patients*

Presenter: John Polley, MD

*Orthognathic Positioning System (OPS): Linking Virtual Surgical Planning (VSP) to Reality in Orthognathic Surgery*

Presenter: Earl Gage, MD

*Virtual Planning Software for Orthognathic Surgery*

Presenter: Scott Rapp, MD

*Minimal Incision Lefort III Osteotomy with Rigid External Distraction: Analysis and Clinical Outcomes of 12 Syndromic Patients*

Presenter: YuRay Chen, MD

*Surgery-First Orthognathic Surgery (Without Presurgical Orthodontics) -- Efficiency and Stability*

10:30 am - 12:00 pm

### **Concurrent Session 2C**

#### **Genetic and Non-Surgical Aspects of Craniofacial Conditions**

Moderators: *Carrie Heike MD, MS & Michael Cunningham, MD, PhD*

Presenter: Jacqueline A. Goos, MD

*Mutations in Tcf12 are a Frequent Cause of Coronal Craniosynostosis*

Presenter: Corinne Collet, MD

*Crouzon Syndrome and Bent Bone Dysplasia Associated to Mutations at the Same Tyr-381 Residue in Fgfr2 Gene*

Presenter: Charlotte L. Bendon, BA, BMBS

*Non-Scaphocephalic Sagittal Synostosis and Raised Intracranial Pressure are Part of the Clinical Spectrum of Frank-Ter Haar Syndrome*

Presenter: Katrina M. Dipple, MD, PhD

*Hemifacial Microsomia Associated with a Duplication of 4P16*

Presenter: Donna McDonald-McGinn, MS, CGC

*Craniofacial Abnormalities in Association with the 22q11.2 Deletion Syndrome: Beyond Clefing*

Presenter: Linlin Gao, MD

*Prevalence of Obstructive Sleep Apnea Syndrome in Syndromic Children with Craniofacial Anomalies*

Presenter: Kelly N. Evans, MD

*Timing of Airway Obstruction in Infants with Robin Sequence*

Presenter: Michael Friel, MD

*Progressive Hemifacial Atrophy: A New Finding*

Presenter: Reid A. Maclellan, MD

*Facial Infiltrating Lipomatosis is Caused by *Pik3ca* Activating Mutations*

Presenter: Robert Wood, MD

*Plagiocephaly, Torticollis, Lambdoid Craniosynostosis: A Spectrum of Disease. A Review of 9,683 Patients with Posterior Plagiocephaly*

Presenter: Haruko Okada, MD

*Cleft and Craniofacial Clinic Formats in the United States: National and Institutional Survey*

Presenter: Melinda Costa, MD

*Telemedicine in Cleft Care: The Experience at Shriners Hospital for Children, Los Angeles*

Presenter: Sasha Burn

*Positional Plagiocephaly: Experience with a Passive Orthotic Mattress*

Presenter: Sophie Ricketts, MD

*Development of a Patient Reported Outcome Measure in Adult Cleft Lip and Palate Patients*

Presenter: Daniela Hearst, BSc, MPhil

*"Just Because Someone's a Doctor Doesn't Mean I Just Trust Them": Enhancing Patients' Decision Making in Elective Reconstructive Surgery*

12:00 - 1:30 pm

Lunch

12:00 - 1:30 pm

ISCFS Biennial Business Meeting

1:30 - 3:30 pm

### **Concurrent Session 3A**

#### **Aesthetic Surgery of the Craniofacial Skeleton & Craniofacial Trauma**

Moderators: *Michael Yaremchuk, MD & Joseph Gruss, MD, FRCSC, FAAP*

Presenter: LunJou Lo, MD

*Mental Nerve Pathway Before Mental Foramen for Genioplasty*

Presenter: Gaby Doumit, MD, MSc

*Aesthetic Refinements in the Treatment of Graves' Ophthalmopathy*

Presenter: Henry Spinelli, MD

*Cosmetic and Functional Treatment of Graves Exophthalmos and Related Eyelid Malposition Using Selective Osteotomies*

Presenter: Feng Niu, MD

*Correction of Prominent Malar with Fibrous Dysplasia by L-Shape Osteotomy*

Presenter: Amir Elbarbary, MD

*Implementing Fat Grafting in Managing Difficult Craniofacial Patients*

Presenter: Jie Yuan, MD, PhD

*Influence of the Maxillary Sinus Exposure and Partial Masseter Resection in Aesthetic Facial Contour Surgery*

Presenter: Robert Guryanov, MD

*Customized 3D Modeling of Augmentation Mentoplasty*

Presenter: Richard Levine, MD, DDS

*Analysis of Adult Facial Skeletal Change with Age*

Presenter: Jorge Cabrera, MD

*Fat Grafting in the Craniofacial Patient*

Presenter: Riccardo Tieghi, MD

*Structural Fat Grafting of the Cranio Orbito Facial Area Volumetric & Morpho-Aesthetic Implications*

Presenter: Vivian Hsu, MD

*A Preliminary Report on the Use of Antibiotic-Impregnated Methyl Methacrylate in Salvage Cranioplasty*

Presenter: Mark Lloyd

*Titanium Cranioplasty in Paediatric Craniofacial Surgery - The Birmingham Experience*

Presenter: John Turner, MD

*Orbital Floor Fractures: An Outcomes Study of Reconstruction in 364 Cases*

Presenter: Ramesh Sharma, MD

*Reconstruction of Major Calvarial Defects Using Autogenous Material*

Presenter: Gregoire Pech-Gourg, MD

*Porous Hydroxyapatite Custom Made Cranioplasty in 18 Children*

Presenter: Oleh Antonyshyn, MD, FRCSC

*Patient-Specific Orbital Implants: Development and Implementation of Technology for More Accurate Orbital Reconstruction*

Presenter: Omar Fouda Neel, MD, FRCSC

*A Cost-Benefit Analysis Comparing Custom Computer-Generated Craniofacial Implants Vs. Traditional Bony Cranioplasty for Congenital and Traumatic Cranial Deformities*

Presenter: Amir Dorafshar, MBChB, FAAP

*Total Face, Double Jaw, and Tongue Transplantation: An Evolutionary Concept*

1:30 - 3:30 pm

### **Concurrent Session 3B**

#### **Craniofacial Microsomia/Related Conditions**

Moderators: *Fernando Molina, MD & Sherard A. Tatum, MD*

Presenter: Juan Rodriguez, MD

*Facial Animation in Möbius Syndrome*

Presenter: Parit Patel, MD

*Investigating the Etiopathogenesis of Obstructive Sleep Apnea in Pediatric Patients with Unilateral Craniofacial Microsomia*

Presenter: Pradip Shetye, DDS, MDS

*Longitudinal Growth Analysis of Mandibular Asymmetry in Unoperated Patients with Unilateral Craniofacial Microsomia (UCFM)*

Presenter: Andrew Heggie, MD, DDS

*Final Skeletal Correction in Craniofacial Microsomia- Strategies for Managing the Costochondral-Grafted Patient*

Presenter: Scott Bartlett, MD

*248 Years of Experience Classifying the Mandibular Deformity in Hemifacial Microsomia: A Critical Analysis of the Pruzansky/Kaban Classification System Utilizing Three-Dimensional Computed Tomography*

Presenter: Akira Yamada, MD, PhD

*Total Auricular Construction New Approach with Six Types of Framework Templates Based on Normal Curve Variations*

Presenter: ZungChung Chen, MD

*Customized Porous Polyethylene Framework for Ear Reconstruction*

Presenter: Dariush Nikkhah, BM, MSc, MRCS

*Planning Surgical Reconstruction in Treacher - Collins Syndrome Using Geometric Morphometrics*

Presenter: Jason Wink, BA

*A Critical Analysis of the Relationship Between the Maxilla and the Mandible in Hemifacial Microsomia*

Presenter: Drew Schnitt, MD

*A Novel Approach to Osseointegrated Auricular Prosthesis Retention*

Presenter: David Gault, MB ChB, FRCS

*"I Keep It In The Drawer" - Minimising the Conflict Between Ear Reconstruction and Bahas in Children with Microtia - A Salutary Experience from the UK*

Presenter: Kristin Yee

*Management of Surviving Patients with Otocephaly: Treatment Algorithm and Correction of Facial Deformities*



Presenter: Christopher Gordon, MD

*Free Parascapular Flaps for Pruzanski III Hypoplastic Mandibles: Our Experience with 7 Patients*

Presenter: Caroleen Shipster, MSc

*Psychosocial, Feeding, Speech & Drooling Outcomes in Children with Beckwith Wiedemann Syndrome Following Tongue Reduction Surgery*

Presenter: Petros Konofaos, MD, PhD

*Early Fat Grafting for Augmentation of Orbitozygomatic Region in Treacher Collins Syndrome: A Preliminary Report*

1:30 - 3:30 pm

### **Concurrent Session 3C**

#### **Craniofacial Imaging**

Moderators: Alex Kane, MD & Alvaro Figueroa, DDS, MS

Presenter: Karen Eley, MBChB, MRCS, PGCTLCP, FHEA, MSc, DPhil

*"Black Bone" MRI: Changing the Face of Craniofacial Imaging*

Presenter: Christopher Zarella, MD

*Radiation Reduction Protocol Effectively Reduces Radiation Exposure During CT Evaluation of Pediatric Craniofacial Anomalies*

Presenter: Roberto Flores, MD

*An Open-Access, Internet-Based, Plastic Surgery Simulator*

Presenter: Allan Ponniah, MBBS, MRCS, MSc

*Mein3d. 12000 Facial Surface Scans to Create a Model of Normal Facial Variation to Aid Surgical Planning*

Presenter: Shaher Khan, MD

*Incidence of CNS Abnormalities on Brain MRI in Infants with Pierre Robin Sequence*

Presenter: Giovanna Paternoster

*Trigonocephaly and Frontal Lobe Perfusion*

Presenter: Mahsa Bidgoli Moghaddam, MBBS

*Outcome Analysis After Helmet Therapy Using 3D Photogrammetry in Patients with Deformational Plagiocephaly: The Role of Root Mean Square*

Presenter: Jordan Jacobs, MD

*Best Face Forward: Virtual Modeling and Custom Devicefabrication to Optimize Craniofacial Vascularized Composite Allotransplantation (VCA)*

Presenter: William Katowitz, MD

*Optical Coherence Tomography: A Potential Optic Nerve Head Imaging Modality for Craniostosis Patients with Suspected Raised Intracranial Pressure*

Presenter: Oksana Jackson, MD

*Real Time Cine-MRI in Fetuses with Head and Neck Pathology*

Presenter: Mark Fisher, MD

*Computational Fluid Dynamics for Air Flow Modeling in Craniofacial Pathoanatomy*

Presenter: Ben Green, BSc

*A Classification System to Guide Orbito-Zygomatic Reconstruction Intreacher - Collins Syndrome*

Presenter: Corbett Wilkinson, MD

*Clinoccephaly and Closure of Lateral Calvarial Sutures on Volume-Rendered CT Reconstructions*

Presenter: Thomas Satterwhite

*Craniofacial Fibrous Dysplasia*

Presenter: Keshav Magge, MD

*Incidental Findings and Their Clinical Significance in Preoperative CT for Single Suture Non Syndromic Craniostosis*

Presenter: Jeyhan Wood, MD

*The Use of Brainlab Navigation in Lefort III Osteotomy*

Presenter: Freida Angullia, MD

*Predicting Facial Soft Tissue Changes Following Facial Osteotomies Using Geometric Morphometrics and Thin Plate Spline Warping*

- Presenter: Oluwaseun A. Adetayo, MD  
*Successful Reconstruction of Complex Pediatric Nasal Lesions: Improving Outcomes Using a Dermal Regenerative Template in Pediatric Nasal Defects*
- Presenter: Kevin Paik, BS  
*Femtosecond Plasma Mediated Laser Ablation has Advantages Over Mechanical Osteotomy of Cranial Bone*
- Presenter: Michael Chung, BS  
*Use of Novel Bmp-2 Minicircle Plasmid-Releasing Scaffolds for Bone Engineering*
- Presenter: Kevin Paik, BS  
*Bone Morphogenetic Protein Receptor 1B as a Marker for Enrichment of Osteogenic Precursors*
- Presenter: Michael Chung, BS  
*Isolation of Adipose-Derived Stromal Cells Using Laser-Assisted Liposuction Specimens and Their Therapeutic Potential in Regenerative Medicine*
- Presenter: Kevin Paik, BS  
*Enhanced Adipose-Derived Stromal Cell Osteogenesis Through Surface Marker Enrichment and BMP Modulation*
- Presenter: Darren Smith, MD  
*Advances in 3D Image Fusion for Craniofacial Transplantation*
- Presenter: Takayuki Okumoto, MD  
*Usability of 3D Simulation for Cranio-Maxillofacial Surgery*
- Presenter: Kevin Paik, BS  
*Three-Dimensional Morphometric Analysis of the Hypoplastic Mandible*
- Presenter: Andres Bello, MD  
*Comparative Analysis of the Muscular Structures of the Neck in Patients with Pierre Robin Sequence and Patients with Normal Mandibular Growth*
- Presenter: Zheyuan Yu, MD  
*A Three Dimensional Analysis of Facial-Labial Fold After Malar Augmentation or Reduction*
- Presenter: John van Aalst, MD, MA  
*Brain Volume and Shape Changes in Midline Non-Syndromic Craniosynostosis Patients*
- Presenter: Cuauhtemoc Lorenzana, MD  
*Differences in Measurements of the Skull Base and Facial Skeleton in Patients with Plagiocephaly Versus Patients with Plagiocephaly and Facial Scoliosis*
- Presenter: Susana Dominguez-Gonzalez, PhD  
*Pattern of Dental Extractions in Patients with Syndromic Craniosynostosis Undergoing Craniofacial Surgery*
- Presenter: Shen Weimin, MD  
*Sutural Distraction Osteogenesis (SDO) of Internal Distractor Treated Unilateral Coronal Synostosis and Implanted Medpor for Block Skull Growth and Repair of Skull Defect: A Primary Clinical Report*
- Presenter: Xiaojing Liu, MD  
*Virtual Design of Bilaterally Destroyed Trauma Case S Based on Three Dimensional Normal Skull Database*
- Presenter: Amir Mrad, MD, MBA, FRCSC  
*Cost Analysis of Autogenous Vs. Prefabricated Patient-Specific Alloplastic Cranioplasty*
- Presenter: Kazuhiro Otani, MD, PhD  
*Zygomatic Fracture: Extended Classification for Additional Option for the Immediate Management*
- Presenter: Christian Vercler, MD  
*Use of CT Derived Prosthetics for Intra-Operative Guidance of Tumor Resection*
- Presenter: Faisal Al-Mufarrej, MB BCH  
*Branchial Arch Anomalies: Recurrence, Malignant Degeneration and Operative Complications*
- Presenter: Henry Spinelli, MD  
*Lateral Transzygomatic Approach Sphenoid Meningioma*
- Presenter: Jocelyn Shand, MBBS, MDSc, FRACDS(OMS), FDSRCS(Eng)  
*Management of Mandibular High-Flow Arteriovenous Malformations*

## Poster Session Continued

Presenter: Oluwaseun Adetayo, MD

*Evaluating the Efficacy of Airway Expansion Using Trans-Cranial Versus Sub-Cranial Facial Osteotomies: A Cohort Comparison Study Between Monobloc Frontofacial Advancement and Le Fort III Facial Advancement*

Presenter: Jesse Goldstein, MD

*A Comparative Analysis of Complications in 55 Midface Distraction Procedures in Patients with Syndromic Craniosynostosis*

Presenter: Kariuki Murage, MD

*Outcomes Analysis of Mandibular Distraction Osteogenesis for the Treatment of Pierre Robin Sequence Associated with Advanced Airway Obstruction*

Presenter: Raymond Harshbarger III, MD

*Expansion of the Posterior Cranial Vault: Characterization of the Role of Distraction Osteogenesis*

Presenter: Susan Goobie, MD, FRCPC

*Can We Predict the Need for ICU Admission After Craniosynostosis Surgery?*

Presenter: Marten Basta, BS

*A 35-Year Experience with Syndromic Cleft Palate Repair: Operative Outcomes and Long-Term Speech Results*

Presenter: Jordan Steinberg, MD, PhD

*Thirty Years of Prenatal Cleft Diagnosis: What Have We Learned?*

Presenter: Fateh Ahmad, FRCS(Plast)

*Post-Operative Pyrexia in Children Following Transcranial Surgery*

Presenter: Jonathan Britto, MB, MD, FRCS(Plast)

*Visual Function and Operative Morbidity in the Correction of Hypertelorism: Report of 31 Cases*

Presenter: Nicola Bystrzonowski, MBBS, BSc, MRCS (Eng), MSc, DIC

*Using Principal Component Analysis (PCA) to Quantify the Deformity in Craniofrontonasal Dysplasia, Simulate Correction and Aid Surgical Planning*

Presenter: Mitchel Seruya, MD

*Long-Term Outcomes Following Extended Sagittal Synostectomies*

Presenter: MyChi H. Le, MD

*Morphometric Analysis of Cortical Gray Matter in Infants with Isolated Metopic Craniosynostosis*

Presenter: Anderson Souza, MD

*Trigonocephaly - Treatment Using Dynamic Craniotomy and Expander Springs*

Presenter: Edward Davidson, MA (Cantab), MBBS

*A Three Dimensional Analysis of Nasal Aesthetics Following Le Fort I Advancement in Patients with Cleft Lip and Palate*

Presenter: Alex Rottgers, MD

*Simultaneous Alveolar Fistula Repair and Bone Graft During Lefort I Advancement in Cleft Patients: Improving Outcomes and Decreasing Morbidity Using Allograft Only Bone Graft*

Presenter: Robert Wallace, MD

*Combined Contraction and Distraction of the Facial Skeleton in Staged Treatment of an Atypical Facial Cleft Using Distraction Devices*

Presenter: Nivaldo Alonso, MD, PhD

*Long Term Follow Up of Maxilar Reconstruction in Cleft Patients with Rhbmp-2. Cost Benefits Analysis*

Presenter: Diego Caycedo, MD, MSc

*Rare Facial Clefts: 6 Cases Each A Different Challenge for Treatment*

Presenter: Penpak Krergmatukorn, MD

*8 Transverse Cleft Lip Repair Cases - Follow Up*

Presenter: Jonathan Britto, MB, MD, FRCS(Plast)

*Age-Related Effect of Monobloc Fronto-Facial Distraction on Orbital Volume, Morphology, and Clinical Outcome In 29 Crouzon-Pfeiffer Cases: A Controlled Study*

Presenter: Mckay Mckinnon, MD

*Correction of Coronal Craniosynostosis From UCS to Kleeblattschadel*

Presenter: Jonathan Britto, MB, MD, FRCS(Plast)

*Orbital Morphology in Apert and Crouzon-Pfeiffer Syndromes: An Age – Matched, Controlled Study*

Presenter: Jesse Goldstein, MD

*Closure of the Spheno-Occipital Synchondrosis in Patients with Crouzon Syndrome: A Link to Midface Hypoplasia*

Presenter: Coll Guillaume, MD

*Hydrocephalus and Base Skull Abnormalities in FGFR 2 Craniosynostosis*

Presenter: Cassio Raposo-Amaral Sr., MD, PhD

*Monobloc Fronto Facial Advancement with Distraction Osteogenesis for Syndromic Craniosynostosis:*

*Comparison Between 2 Distractors*

6:30 - 7:30 pm

ASCFS Reception

8:00 - 10:00 pm

**ISCFS Council Dinner (by invitation)**

8:00 - 10:00 pm

Seattle Children's Craniofacial Fellowship Alumni Dinner

## Friday, 13 September

7:00 - 6:00 pm

Registration

7:00 - 8:00 am

Continental Breakfast

7:30 - 9:30 am

### **Concurrent Session 4A**

#### **Basic Science Research**

Moderators: *Scott Bartlett, MD & Robert Mennard, MD*

Presenter: Zoe MacIsaac, MD

*Long-Term Biomechanical Properties of Bone Morphogenetic Protein Regenerated Bone in Favorable and Unfavorable Calvarial Wounds*

Presenter: Derek Steinbacher, MD, DMD

*Evaluation of Cranial Transport Distraction With and Without Adipose Grafting*

Presenter: Arin Greene, MD

*An Experimental Study of Particulate Bone Graft for Secondary Inlay Cranioplasty Over Scarred Dura*

Presenter: Joseph Losee, MD

*Repair of a Complicated Calvarial Defect: Reconstruction of a Wound Complicated by Durectomy and Infection*

Presenter: Adrian McArdle, MD

*Identification and Characterization of Neurocranial Skeletal Progenitor Cells Identification and Characterization of Neurocranial Skeletal Progenitor Cells*

Presenter: Erwin Pauws, MD

*Evidence from the Fgfr2c342y/C342y Crouzon Murine Model Argues for a Primary Failure in Chondrogenic Development*

Presenter: Miles Pfaff, MD

*Osteogenic Performance of Donor Matched Human Adipose and Bone Marrow MSCs Under Dynamic Culture*

Presenter: Joyce Yuan, MD

*Nager Syndrome Dental Pulp Stem Cells Show Superior Osteogenic Potential Compared to Treacher Collins Syndrome*

Presenter: Hiroshi Kurosaka, PhD, DDS

*Hedgehog Gradient Modulates Nasal Processes Growth and Fusion by Antagonizing Canonical WNT Signaling*

Presenter: Sameer Shakir, BS

*Transforming Growth Factor Beta 1 Improves Bone Healing and Promotes Suture Regeneration*

Presenter: Greg Cooper, MD

*Calvarial Reconstruction with Bone Marrow Cells: Concomitant Treatment with BMP-2*

Presenter: Frank Papay, MD

*Trans-Oral Posterior Maxillary Craniofacial Surgery to Place a Sphenopalatine Ganglion (SPG) Neurostimulator for Treatment of Chronic Cluster Headache (CCH): Pathway CH-1 Study Surgical Experience*

Presenter: Kevin Paik, BS

*Cell-Assisted Lipotransfer with Bone Morphogenetic Protein Receptor IA+ Adipose-Derived Stromal Cell Subpopulations*

Presenter: Fatih Zor, MD

*Reflectance Confocal Microscopy May Reduce the Need for Skin Biopsy in Composite Tissue Allotransplantation*



Presenter: PangYun Chou, MD

*Preoperative Lip Measurement in Patients with Unilateral Complete Cleft Lip/Palate and Its Comparison with Norms*

Presenter: Mark Mooney, MD

*Biomechanical Assessment of Calvarial Reconstruction: Repair of a Cranial Defect with Cryopreserved and Fresh Autologous Graft*

7:30 - 9:30 am

### **Concurrent Session 4B**

#### **Non-Syndromic Craniosynostosis II - A**

Moderators: Jie Yuan, MD, PhD & Christopher Forrest, MD, MSc, FRCSC, FACS

Presenter: Jeffrey Fearon, MD

*Effects of Hypotensive Anesthesia on Blood Loss During Craniosynostosis Corrections*

Presenter: John Crantford, MD

*Evaluating The Safety and Efficacy of Tranexamic Acid Administration in Pediatric Cranial Vault Reconstruction*

Presenter: Carol Millar, MD

*Techniques to Minimise Patient Exposure to Donated Blood; A 10 Year Audit of 450 Consecutive, Non Syndromic, Paediatric, Calvarial Remodelling Procedures*

Presenter: Llewellyn Padayachy, MD

*Intraoperative Blood Transfusion Patterns in Surgery for Non Syndromic Craniosynostosis*

Presenter: Peter Hashim, MD

*Effects of Type of Surgical Intervention on Neuropsychological Outcomes in Sagittal Craniosynostosis*

Presenter: Christopher Bonfield, MD

*Examining The Utility of Dynamic Cranioplasty for the Treatment of Sagittal Synostosis: A Retrospective Cohort Comparison Study Between Reverse PI Cranioplasty and Extended Strip Cranioplasty*

Presenter: Peter Ray, MD

*Diagnosis Specific Head Growth Curve in Children Undergoing Total Calvarial Vault Remodeling (TCVR) for Sagittal Suture Synostosis*

Presenter: David Chong, MD

*Total Cranial Vault Remodeling for Isolated Sagittal Synostosis: Part I. Postoperative Cranial Suture Patency*

Presenter: Anand Kumar, MD

*Evaluating the Efficacy of Dynamic Cranial Vault Remodeling for the Treatment of Late Presenting Scaphocephaly: A Cohort Comparison Study Between PI Cranioplasty and Subtotal Cranioplasty*

Presenter: David Johnson, MD

*How Does Cephalic Index at the Skull Vault Relate to Cephalic Index at the Skull Base in Children with Unoperated, Isolated Sagittal Synostosis?*

Presenter: Christian Duncan, MD

*The Liverpool Protocol for Scaphocephaly Correction*

Presenter: Robert Havlik, MD

*Sphenoid Wing Flare: Findings and Implications for Treatment of Sagittal Suture Synostosis*

Presenter: Jennifer Rhodes, MD

*Initiation of Multi-Model Therapy to Minimize Allogeneic Transfusion Requirements During Surgical Treatment of Craniosynostosis at a Teaching Hospital: Lessons Learned*

Presenter: U. Bengbulie, MD

*International Survey of Protocols for Sagittal Synostosis in Infants*

Presenter: Christian Vercler, MD

*Split Cranial Grafting in Children Less Than 3 Years of Age: >400 Consecutive Cases*

Presenter: Tina Sauerhammer, MD

*Isolated Frontosphenoidal Synostosis: A Rare Cause of Synostotic Frontal Plagiocephaly*

Presenter: Martijn Cornelissen, MD

*Unilateral Versus Bilateral Correction of Unicoronal Synostosis; An Analysis of Long-Term Results*

Presenter: Linda Dagi, MD

*Treatment of Unilateral Coronal Synostosis with Endoscopic Strip Craniectomy and Cranial Orthosis Yields Significantly Better Ophthalmic Outcomes Than Treatment with Fronto-Orbital Advancement*

Presenter: Ari Wes, MD

*A Single Center's Experience with Isolated Unicoronal Craniosynostosis Reconstruction: Long-Term Outcomes of 182 Patients Over 35 Years*

Presenter: Wayne Ledin, MD

*Minor Cranial Suture Closure: A Morphological Study*

7:30 - 9:30 am

#### **Concurrent Session 4C**

##### **Non-Syndromic Craniosynostosis II - B**

Moderators: *Juan Martin Chavanne, MD & John Polley, MD*

Presenter: J. Thomas Paliga, MD

*Isolated Metopic Craniosynostosis in the Fourth Dimension: An Evaluation of Complications, Revisions, and Long-Term Outcomes in 142 Patients Over 30 Years*

Presenter: Alexander Allori, MD, MPH

*Classification of Severity and Operative Decision-Making in Metopic Synostosis*

Presenter: Craig Birgfeld, MD

*Clinical Characteristics and Surgical Decision Making For Infants with Metopic Craniosynostosis in Conjunction with Other Congenital Anomalies*

Presenter: Gary Rogers, MD

*Diagnosis of Metopic Craniosynostosis From the Systematic Analysis of Cranial Malformation*

Presenter: William Abouhassan, MD

*Management of Sagittal Synostosis: Standard of Care*

Presenter: Vera Cardim, MD, PhD

*Nautilus: Dynamic Craniotomy; New Surgical Technique and Preliminary Results*

Presenter: Hamilton Matushita, PhD

*Bilateral Lambdoid and Sagittal Synostosis (BLSS) – “Mercedes Benz” Syndrome*

Presenter: Jitske Nolte, MD, DDS

*True Lambdoid Synostosis: The Liverpool Experience*

Presenter: Kam Patel, MD

*Combined Metopic and Unilateral Coronal Synostoses: A Phenotypic Conundrum*

Presenter: Arun Gosain, MD

*Primary Correction of Nasal Asymmetry in Patients with Unilateral Coronal Synostosis*

Presenter: Hazem Ahmed Mostafa, MD

*A Modified Surgical Correction of Plagiocephaly to Achieve Symmetry*

Presenter: JanFalco Wilbrand, MD, DMD

*Spring-Assisted Cranioplasty: Our First Experience*

Presenter: Azusa Shimizu, MD

*Familial Nonsyndromic Craniosynostosis with Specific Deformity of the Cranium*

Presenter: Cesar Raposo-Amaral, MD

*Comparison of Different Surgical Strategies to Approach Unilateral Coronal Synostosis*

Presenter: David Khechoyan, MD

*Evaluation of Surgical Outcomes in Cranio-Orbital Reshaping with Novel Quantitative Craniometric Analysis*

Presenter: William Hoffman, MD

*Preventing Temporal Hollowing in Fronto-Orbital Advancement Using Polylactic Acid (PLA) Mesh*

Presenter: Kenneth Salyer, MD

*Prefabricated “Profile” Curve Templates for Frontorbital Remodeling in Craniosynostosis*

Presenter: Rebecca Wyten, MD

*Bilambdoid and Sagittal Synostosis : Report of 31 Cases*

Presenter: Carlos Mendoza, PhD

*Computer-Based Quantitative Assessment of Cranial Shape for Craniosynostosis*

Presenter: Dawid Larysz, MD, PhD

*Neurodevelopmental Outcome of Non-Syndromic Craniosynostosis*

Presenter: Anna Kuang, MD

*Benign Radiographic Coronal Synostosis After Sagittal Synostosis Repair*

10:00 am - 12:00 pm

### **Innovation and Invention in Craniofacial Surgery - OPEN OPTIONAL SEMINAR**

Speaker: *T. Forcht Dagi, MD, DMedSc, MPH, FAANS, FCCM, FRCSEd*

Harvard Medical School, MIT and Queen's University Belfast

This seminar outlines the process of developing and commercializing new technologies in craniofacial surgery. Based on the curriculum developed for the Harvard-MIT Program in Health Sciences and Technology, it introduces an integrative approach to biomedical innovation and invention, covering market assessment, intellectual property protection, prototyping, regulatory issues, reimbursement strategy, fund raising, the licensing vs. spinout decision, strategic relationships and company structure. The seminar is intended to familiarize the craniofacial surgeon with the issues to be confronted and the resources available in bringing new technologies to market.

7:00 - 9:00 pm

### **Penn Alumni Dinner**

## **Saturday, 14 September**

7:00 - 6:00 pm

Registration

7:00 - 8:00 am

Continental Breakfast

8:00 - 10:00 am

### **General Session 3**

#### **Craniofacial Distraction**

Moderators: *Nivaldo Alonso, MD, PhD & Yu-Ray Chen, MD*

Presenter: David Dunaway, MBChB, FDSRCS, FRCS(Plast)

*Frontofacial Distraction. A Risk – Benefit Analysis of 90 Consecutive Cases*

Presenter: Hitoshi Mishikawa, FRCS(Plast)

*The Birmingham Experience of Posterior Calvarial Distraction: A 6-Year Review*

Presenter: Richard Hopper, MD, MS

*Normalizing Facial Ratios in Apert Syndrome Patients with Lefort II Midface Distraction and Simultaneous Zygomatic Repositioning*

Presenter: Jesse Goldstein, MD

*A Craniometric Analysis of Posterior Cranial Vault Distraction Osteogenesis*

Presenter: Molina Fernando, MD

*The Orthomorphic Monoblock: A Powerful Technique to Produce Crouzon's Patients with Normal Appearance*

Presenter: Masakazu Hasegawa, MD

*Mandibular Growth After Distraction Osteogenesis: Cases of Pierre Robin Syndrome in Early Childhood*

Presenter: Aina Greig, MA, PhD, FRCS(Plast)

*Correcting the Typical Apert Face: Combining Bipartition with Monobloc Distraction*

Presenter: Yuhki Uchida, MD

*Double Jaw Surgery After Adolescence for Hemifacial Microsomia Cases in Which Distraction was Applied in Childhood*

Presenter: Monica Fawzy, MD

*Posterior Pole Expansion With Springs Without Osteotomies: Results and Predictive Factor of Success*

Presenter: Junnu Leikola, MD, DDS, PhD

*Frontofacial Monobloc Advancement with Distraction Improves Considerably the Apnea and Apnea-Hypopnea-Indexes in a 2-Year Follow-Up Period*

Presenter: Lorelei Grunwaldt, MD

*Improving Nutritional Outcomes in Symptomatic Pierre Robin Sequence: A Cohort Comparison Study Between Tongue Lip Adhesion and Mandible Distraction*

Presenter: Hitesh Kapadia, DDS, PhD

*Sub-Cranial Rotation Distraction Advancement of the Entire Face for the Treatment of Severe Obstructive Apnea Associated with Symmetric Craniofacial Microsomia*

Presenter: Masayuki Miyata, MD, PhD

*Our Provisional Experience of Applying Distraction Osteogenesis in Remodeling Craniosynostosis*

Presenter: Bryant Toth, MD

*Le Fort III with Internal Distraction: A Ten Year, 20 Patient Follow Up*

Presenter: Carlos Barcelo, MD

*Evaluation of the Airway After Monobloc Do A Ten Year Follow Up*

Presenter: Kaneshige Satoh, MD

*Fronto-Orbital Advancement (FOA) Versus Posterior Enlargement, Which is First?: Our Current Timing for the Surgery in Syndromic Craniosynostosis*

Presenter: Pablo Arrieta, MD

*How Distraction Vectors Should be Used in Apert Syndrome for the Correction of the Skull and Face*

10:00 - 10:30 am

Coffee Break

10:30 am - 12:00 pm

#### **General Session 4**

##### **Craniofacial Distraction**

Moderators: *Eric Arnaud, MD & David Dunaway, MBChB, FDSRCS, FRCS(Plast)*

Presenter: ChingHsuan Hu, MD

*Fronto-Facial Monobloc and Le-Fort III Distraction Osteogenesis in Craniosynostosis-Three-Dimensional Evaluation of Treatment Outcome and the Need of Central Distract*

Presenter: Nobuyuki Mitsukawa, MD, PhD

*Early Midfacial Distraction for Syndromic Craniosynostotic Patients with Obstructive Sleep Apnea*

Presenter: Keisuke Imai, MD

*Our New Procedure for Problems and Complications of Lefort Midface Distraction*

Presenter: Martin Evans, MD

*The Impact of Posterior Calvarial Distraction on Chiari Malformations and Syringomyelia*

Presenter: Jose Cortes-Arreguin, MD

*Long-Term Stability of Anterior Open-Bite Closure with Distraction Osteogenesis in Treacher Collins Syndrome*

Presenter: William Tierney, MS

*Surgical Anatomy of Sphenomaxillary Disjunction in the Le Fort III Osteotomy*

Presenter: Shinsuke Akita, MD, PhD

*Anatomical Study Using Cadavers for Imaging of Life-Threatening Complications in Le Fort III Distraction*

Presenter: Patrick Gerety, MD

*Bone Transport Osteogenesis for the Treatment of Large Calvarial Defects: An Ovine Model*

Presenter: Fernando Burstein, MD

*Initial Experience with New Intraoral Midface Distractor, (IMD), Indications and Technique*

Presenter: Robert Menard, MD, FACS

*Image-Guided Transfacial Pin Midface Distraction in Infants Results in Obstructive Sleep Apnea Resolution Verified by Polysomnography*

Presenter: Youssef Tahiri, MD

*A Systematic Review of the Effectiveness of Mandibular Distraction in Improving Airway Obstruction in Children with Mandibular Hypoplasia*

Presenter: Alberto Rocha Pereira, MD

*Also for Adults We Prefer Distraction - Treatment of Saos*

Presenter: Patrick Hettinger, MD

*Neonatal Mandibular Distraction in Pierre Robin Sequence: A Volumetric Analysis of the Mandible and Airway*

12:00 - 1:00 pm

Lunch



1:00 - 3:00 pm

### **General Session 5**

#### **Syndromic Craniosynostosis**

Moderators: *Steven Wall, MD & Xiongzheng Mu, MD*

Presenter: Joyce Florisson, MD

*Does the Jugular Foramen Influence Intracranial Pressure in Craniosynostosis Patients?*

Presenter: Mark Proctor, MD

*The Role of Early Endoscopic Release in the Management of Syndromic and Non-Syndromic Bilateral Coronal Craniosynostosis*

Presenter: Guirish Solanki, MBBS, FRCSI, FRCS(SN)

*Regression of Chronic Hindbrain Hernia and Syringomyelia Following Posterior Calvarial Augmentation in Children: New Insights Into Pathology of Hindbrain Hernia*

Presenter: Bianca Rijken, MD

*Syndromic Craniosynostosis and Chiari Type I Malformation: A Volumetric Study of the Posterior Fossa. Does Size Matter?*

Presenter: Brooke French, MD

*Posterior Cranial Vault Distraction in the Management of Syndromic Multi-Suture Craniosynostosis: Outcomes and 3D Photographic/CT-Based Morphometric Analysis*

Presenter: Albert Oh, MD

*Characteristics of Postnatal Progressive Pansynostosis*

Presenter: Patrick Kelley, MD

*Enhancing the Process of Complex Craniofacial Reconstruction: Lessons Learned in 94 Cases Using Preoperative Computer Modeling*

Presenter: Caroline Driessen, MD

*Abnormal Growth of the Foramen Magnum in Crouzon Syndrome: Size and Closing of the Intra-Occipital Synchondroses*

Presenter: Jesse Taylor, MD

*Closure of the Spheno-Occipital Synchondrosis in Patients with Syndromic Craniosynostosis: A Like to Midface Hypoplasia*

Presenter: Peter Wang, MD, DMD

*Intracranial Plating with Resorbable Plates for Craniofacial Reconstruction*

Presenter: Ajay Sinha, MD

*Pseudomeningocele with Orbital Extension as a Complication of Fronto-Orbital Advancement and Remodelling in Craniosynostosis: A Retrospective Review*

Presenter: Nicki Bystrzonowski, MD

*Identifying which Morphological Abnormalities of Apert Syndrome are Corrected by Bipartition Distraction*

Presenter: Lars Kolby, PhD

*Children with Crouzon Syndrome as Adults. A Follow-Up Study of 31 Swedish Patients*

Presenter: Roman Khonsari, MD

*Effect of Monobloc Fronto-Facial Bipartition Distraction on Orbital Volume, Morphology, and Clinical Outcome in 15 Apert Syndrome Cases: A Controlled Study*

Presenter: Eric Arnaud, MD

*Complications after Frontofacial Monobloc Advancement with Internal Quadruple Distraction in Children*

3:00 - 3:30 pm

Coffee Break



3:30 - 5:00 pm

### **General Session 6**

#### **Syndromic Craniosynostosis**

Moderators: *Stephen Dover, FDSRCS, FRCS & Kaneshige Satoh, MD*

Presenter: Stephen Dover, FDSRCS, FRCS

*Where are They Now?: Geographical and Social Outcomes on 102 Adults with Craniofacial Syndromes*

Presenter: MarieLise Van Veelen, MD

*Spring-Assisted Posterior Vault Expansion in Multisuture Craniosynostosis*

Presenter: Arelene Rozzelle, MD

*Preoperative Treatment with Molding Helmet Improves Cephalic Index in Bicoronal Synostosis*

Presenter: Xiongzhen Mu, MD

*Fronto-Orbital Expansion as Key Procedure in Correction of Craniosynostosis*

Presenter: Roisin McNicholas, MD

*Adverse Events Associated with the Use of Springs for Moving Cranial Bone*

Presenter: Daniel Saiepour, MD, PhD

*Radiological Evaluation after Frontofacial Monobloc Advancement with Internal Quadruple Distraction in Children*

Presenter: Irene Mathijssen, MD, PhD

*Centralized Care for Craniosynostosis*

Presenter: Emmanuela Nadal Lopez, MD, PhD

*Simultaneous Fronto-Orbital Advancement and Dynamic Posterior Cranial Vault Expansion in Apert Syndrome*

Presenter: Javier Gonzalez Ramos, MD

*Spring-Assisted Posterior Expansion and Simultaneous Fronto-Orbital Expansion in Syndromic Craniosynostosis*

Presenter: Owase Jeelani, MBA, MPhil, FRCS

*'Posterior Calvarial Expansion Using Custom Made Springs'; The Evolution of a Surgical Technique*

6:00 - 9:00 pm

### **Farewell Dinner**



## REGISTRATION INFORMATION

### PRE-CONGRESS SYMPOSIUM - Tuesday, September 10

	Early Rate Until June 7	Late Rate June 8 - August 23	On-Site Rate After August 23
Member	\$ 300	\$ 400	\$ 550
Non-Member	\$ 400	\$ 500	\$ 650
Residents*	\$ 150	\$ 250	\$ 500

### CONGRESS - September 11 - 14

Member	\$ 900	\$1,000	\$1,200
Non-Member	\$1,100	\$1,200	\$1,500
Residents*	\$ 500	\$ 600	\$ 750
Spouse	\$ 350	\$ 350	\$ 350

\*Must provide verification letter to qualify for specific rates

### SOCIAL FUNCTION FEES

**Welcome Reception Registrant** (*fee included in registration*) - Wednesday, September 11

**Welcome Reception Spouse/Guest** - Wednesday, September 11 Tickets @ \$125

Children (6-18) @ \$50

**Farewell Dinner** (*not included in registration fee*) - Saturday, September 14 Tickets @ \$150 Children (6-18) @ \$75

### How to Register

Please register on the Congress website: [www.iscfs2013.org](http://www.iscfs2013.org)

### Registration Fees Include

- Entry to all scientific sessions and exhibit hall
- Daily Lunch
- Morning and Afternoon Refreshments
- Congress Bag
- Copy of Program/Abstract Book
- Welcome Reception

### Payment Details

We accept MasterCard, Visa, Discover and American Express credit cards. Charges will appear as "ISCFS" on your credit card statement. For alternate payment options, please contact us at [iscfs2013@conmx.net](mailto:iscfs2013@conmx.net)

### Cancellations and Refunds

Cancellations must be made in writing to ISCFS. Cancellations received on or before Friday, August 23, 2013 are subject to 10% administrative fee. Cancellations after this date will not be refunded for any reason.

### Registration Acknowledgement

Your registration will be acknowledged via email upon submission of your on-line registration. Registration fees are based on date of receipt of payment not the receipt of registration form.

### Changes or Questions

Changes to your registration will not be accepted over the telephone. Alterations must be requested in writing via:

Email: [iscfsregistrar@conmx.net](mailto:iscfsregistrar@conmx.net)

Phone: 1-603-643-2325

Fax: 1-603-643-1444

Mail: ISCFS Meeting Office

45 Lyme Road, Suite 304

Hanover, NH 03755 USA



## General Information

### Banks

Banks in Jackson Hole are open from 9:00 am - 5:00 pm Monday to Friday. Most banks are open on Saturday from 9:00 am - 12:00 pm. Automatic Teller Machines are open 24 hours and are located at the airport, all hotels and in town. Facilities for exchange of currency are not available at the Jackson Hole airport. We recommend changing funds at a major airport while you are in transit or before leaving home.

### Electricity

Electricity in the US is 120 Volts, alternating at 60 cycles per second. If you travel to the US with a device that does not accept 120 Volts at 60 Hertz, you will need a voltage converter.

### Disabled Facilities

If you require disability specific facilities or have any special needs, please indicate so on your registration form where you will be requested to provide detailed requirements.

### Travel and Program Disclaimers

In the event of any travel disruptions, Congress Organizers will not be held responsible for any losses incurred by registrants en route to or from the Congress.

The program is correct at the time of printing. Congress Organizers reserve the right to alter the program as necessary.

### Insurance

We strongly recommend that you obtain adequate travel and health insurance prior to beginning your travels. Your travel agent can help.

### Liability

Congress Organizers are not liable for personal accidents, losses or damage to the private property of registered attendees or any accompanying persons during the Congress. Please make your own arrangements with respect to personal insurance.

### Invitation Letters

To assist you in obtaining any necessary visas, it is essential that you complete the registration via the Congress website including a valid email. Congress Organizers will process your registration and send a receipt of your payment. You can then present this receipt to your nearest American Consulate or Embassy with your visa application. If you require a special letter of invitation, please contact the ISCFs Meeting Office. In the event that your visa application is unsuccessful, you must advise the Meeting Office in writing by August 23rd to receive a refund. No refunds will be made after August 23rd.

### Passport and Visa

All international visitors seeking to attend or participate in a conference in the United States should apply for a B-1 Visitor Visa.

The Visa Waiver Program (VWP) enables citizens of certain countries to travel to the United States for tourism or business for 90 days or less without obtaining a visa. Not all countries participate in the VWP. The US State Department Website, Visa Section, includes a current list of VWP countries.

Please visit <http://travel.state.gov/visa/> for more information about US visa requirements.

Check with your airline, travel agent, or nearest American Consulate or Embassy, as immigration laws have become very strict.

### Congress Attire

Congress Sessions: Casual

Welcome Reception: Casual

Council Dinner (*by invitation only*): Casual

Farwell Dinner: Casual Western Wear – Cowboy Boots are a good idea!



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 Please use our secure on-line registration at [www.iscfs2013.org](http://www.iscfs2013.org)

**CONTACT INFORMATION**

First Name \_\_\_\_\_ Last Name \_\_\_\_\_ MI \_\_\_\_\_ Degree \_\_\_\_\_

The 'badge name' is your name as you would like it to appear on your name badge, example Tom instead of Thomas.

Name on your badge \_\_\_\_\_

Affiliation/Employer \_\_\_\_\_

Department \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State (US Only) \_\_\_\_\_ Province/District \_\_\_\_\_ Postal Code \_\_\_\_\_

Country \_\_\_\_\_

Email Address (required) \_\_\_\_\_

Phone Number \_\_\_\_\_ Fax Number \_\_\_\_\_

Country Code

Country Code

**REGISTRATION FEES**

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	Early Rate Until June 7	Late Rate June 8 - August 23	On-Site Rate After August 23	
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Residents*	<input type="radio"/> \$ 150	<input type="radio"/> \$ 250	<input type="radio"/> \$ 500	Total \$ _____

**CONGRESS - September 11 - 14**

Member	<input type="radio"/> \$ 900	<input type="radio"/> \$1,000	<input type="radio"/> \$1,200	
Non-Member	<input type="radio"/> \$1,100	<input type="radio"/> \$1,200	<input type="radio"/> \$1,500	
Residents*	<input type="radio"/> \$ 500	<input type="radio"/> \$ 600	<input type="radio"/> \$ 750	
Spouse	<input type="radio"/> \$ 350	<input type="radio"/> \$ 350	<input type="radio"/> \$ 350	Total \$ _____

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**SOCIAL FUNCTION FEES**

**Welcome Reception Registrant** (fee included in registration) - Wednesday, September 11  Yes, I will attend

**Welcome Reception Spouse/Guest** - Wednesday, September 11  
 \_\_\_\_\_ Tickets @ \$125      \_\_\_\_\_ Children (6-18) @ \$50      + Total \$ \_\_\_\_\_

Spouse/Guest Name: \_\_\_\_\_

**Farewell Dinner** (not included in registration fee) - Saturday, September 14  
 \_\_\_\_\_ Tickets @ \$150      \_\_\_\_\_ Children (6-18) @ \$75      + Total \$ \_\_\_\_\_

**TOTAL FEES ENCLOSED = \$ \_\_\_\_\_**

**FEE AND PAYMENT METHOD - To Register on-line, [www.iscfs2013.org](http://www.iscfs2013.org)**

Visa     MasterCard     Discover     American Express     Check enclosed drawn on a US Bank (Payable to ISCFS)  
 Number \_\_\_\_\_ Exp. Date \_\_\_\_\_ CVV2# \_\_\_\_\_

The CVV2 code for American Express - The four digit number located on the front of the card, just above the end of the main number.

For VISA or MasterCard - The last three digits on the back of the card, in the white strip.

Name as it appears on card (please print) \_\_\_\_\_

Signature \_\_\_\_\_

Street address where you receive your statement (for bank required verification purposes)

SEND YOUR COMPLETED REGISTRATION FORM TO:

ISCFS 2013 Meeting Office, 45 Lyme Road, Suite 304, Hanover, NH 03755, USA

Fax: 1-603-643-1444 Questions? Tel: 1-603-643-2325 or E-mail: [ISCFS2013@conmx.net](mailto:ISCFS2013@conmx.net)

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