



# XVII Congress of the International Society of Craniofacial Surgery (ISCFS)

October 24<sup>th</sup>, 2017  
Pre- Congress Course

October 25<sup>th</sup> -28<sup>th</sup>, 2017  
ISCFS Meeting



Venue & Headquarter  
Fiesta Americana Coral Beach Hotel  
Cancun, Quintana Roo, Mexico



**PROGRAM**

# CMF Surgery

Individualizing therapeutic concepts.

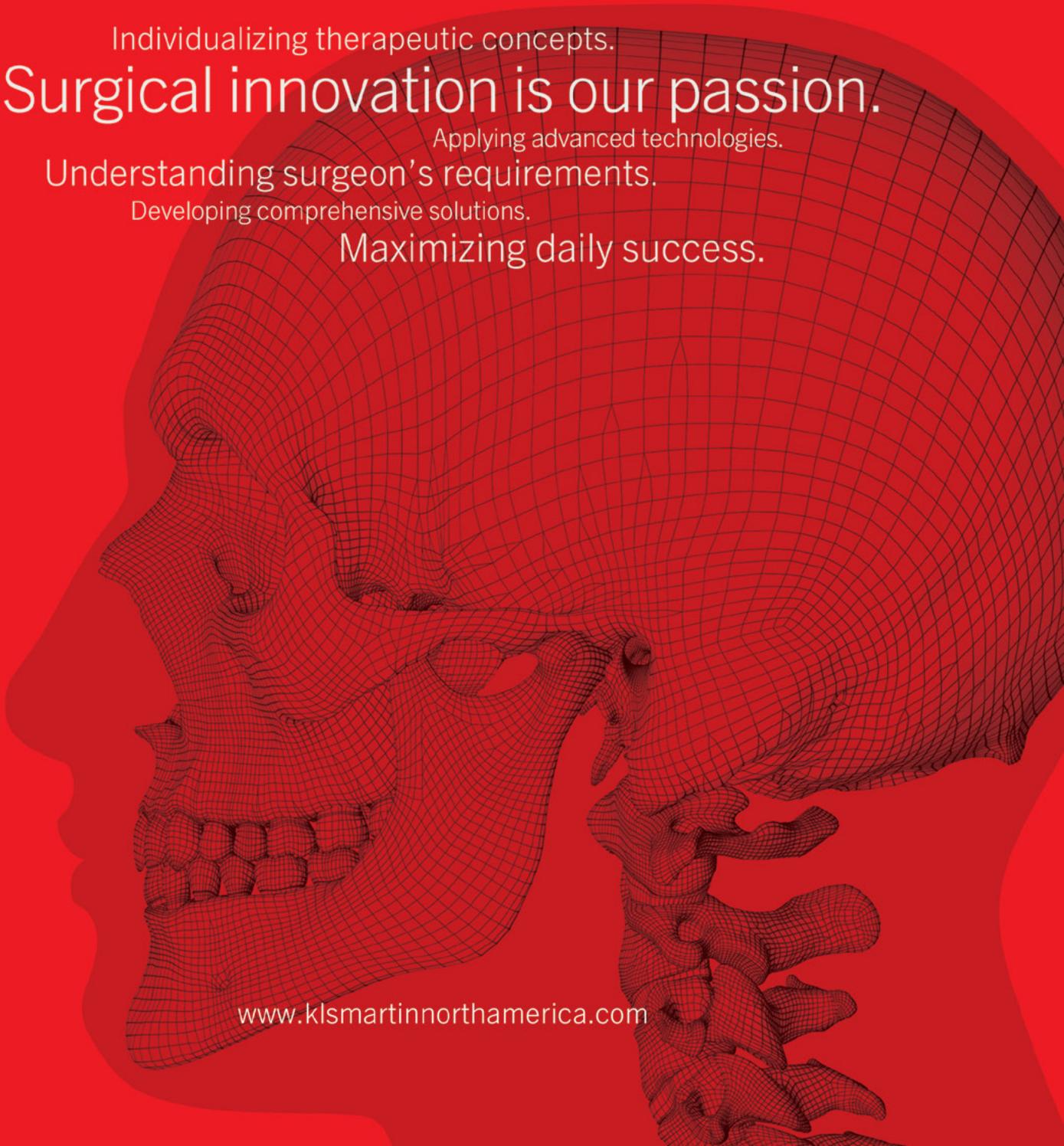
Surgical innovation is our passion.

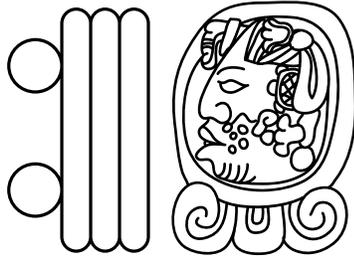
Applying advanced technologies.

Understanding surgeon's requirements.

Developing comprehensive solutions.

Maximizing daily success.





# **XVII Congress of the International Society of Craniofacial Surgery (ISCFS)**



## **OFFICIAL PROGRAM**

October 24<sup>th</sup> - 28<sup>th</sup>, 2017 • Cancun, Quintana Roo, Mexico

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# WELCOME MESSAGE



## ISCFs PRESIDENT'S MESSAGE

### WELCOME TO THE ISCFs 2017 IN MEXICO

As President of the International Society of Craniofacial Surgery (ISCFs), I am delighted to welcome you to 17th Biennial Congress to be held in Cancun, Mexico from October 24th to 28th, 2017. I hope you will enjoy the beauty of the Mexican Caribbean at Cancun, a very unique place, where the history of the Maya culture reaches the modernism of the contemporary Mexico.

Nowadays, more than 50 years after Craniofacial Surgery was born, it is my sincere desire that we all will richly benefit for this experience and take back home new knowledge and richness of spirit to enhance our practice and results.

The ISCFs Officers and a selected group of Founding Members will work in highly specialized scientific program, in which each topic will be analyzed from the very basic to the most sophisticated and modern approach. Naturally we will include the "success", that fundamentally change the patient's life, but also the "failures", they encourage us to explore further for different and better treatments, always trying to find the better smile from our patients. No doubt it will be an exciting and stimulating Scientific Program.

Our social program will also be very attractive and along with the natural beauty of the place, which itself renews the soul, the group will visit the pre-hispanic city of Chichen - Itza, one of the wonders of the world and sacred site of the New Mayan culture. Throughout its nearly 1,200-year history, different people have left their mark on the city and a full vision of the world and the universe is revealed in their stone monuments and artistic works.

Everybody is welcome to shake hands at the welcome cocktail, also to listen to the lectures honoring Paul Tessier and Fernando Ortiz Monasterio during the scientific sessions. As well on Friday night dress up elegant gowns for the gala dinner and share friendship, camaraderie and new perspectives. All these activities will be the ideal framework to enjoy wine and beer, local spicy food and high Mexican cuisine gastronomy, now so trendy around the world.

Please do not forget your swimsuit! You can not miss the chance to feel the pleasure of plunging into the turquoise and gently warm water in Cancun.

Receive my warmest regards!

Dr. Fernando Molina  
President, ISCFs

# WELCOME MESSAGE



## ISCFS VICE PRESIDENT'S MESSAGE

Dear ISCFS friends and members, dear participants,

It is my pleasure as Vice-President of this society to welcome you as at this outstanding meeting organized by our President, Fernando Molina. Twenty four years after the Oaxaca meeting, organized by Fernando Ortiz Monasterio, the ISCFS is back to Mexico, country of numerous craniofacial contributions as well as filled with archeological treasures.

I was lucky to meet the "Fernandos" in 1993 when doing a fellowship in the Mexican team. It was obvious that the breakthrough of osteodistraktion initiated by MacCarthy was igniting a revolution in the craniofacial congenital care, and Mexico the place to be. I learnt a lot and we were all excited by imagining the endless applications of distraction. Many of the members of this society spent some time in the Gea Gonzalez Hospital to learn these new techniques. The fever went down, but this society can be proud that it had promoted, considerable advances after Tessier's initial breakthrough.

I trust our ISCFS will still be able to maintain its scientific leadership in the craniofacial care. I am sure that the XVII ISCFS meeting will contribute by being a very stimulating one; but also a most enjoyable event, not to forget Mexican hospitality, food and history. Thank you, Fernando!

Eric Arnaud, Paris, France  
ISCFS Vice-President



## ISCFS 2017 Organizing Committee

Fernando Molina, Mexico  
**PRESIDENT**

Eric Arnaud, France  
**VICE PRESIDENT**

Irene Mathijssen, The Netherlands  
**SECRETARY-TREASURER**

Kaneshige Satoh, Japan  
**IMMEDIATE PAST PRESIDENT**

Jorge Psillakis, MD, Mexico

Kenneth E. Salyer, MD, USA

Michael Striker, MD, France

Paul L. Tessier, MD, France

Jacques van der Meulen, MD, The Netherlands

Linton A. Whitaker, MD, USA

S. Anthony Wolfe, MD, USA

## Council Members

Charles Davis, New Zealand

Stephen Dover, United Kingdom

Alvaro Figueroa, United States

Richard Hopper, United States

Juan Carlos Rodriguez, Argentina

## Past Presidents and Congress Meeting Sites

1985 Paul Tessier, La Napoule, France

1987 Paul Tessier, New Delhi, India

1989 Ian R. Munro, Florence, Italy

1991 Joseph G. McCarthy, Santiago de Compostela, Spain

1993 Fernando Ortiz-Monasterio, Oaxaca, Mexico

1995 Daniel Marchac, St. Tropez, France

1997 Linton A. Whitaker, Santa Fe, New Mexico, USA

1999 Yu-Ray Chen, Teipei, Taiwan

2001 Claes Lauritzen, Visby Gotland, Sweden

2003 Kenneth E. Salyer, Monterey, California, USA

2005 David J. David, Queensland, Australia

2007 S. Anthony Wolfe, Bahia, Brazil

2009 Steven Wall, Oxford, UK

2011 Anil Madaree, Livingstone, Zambia

2013 Scott Bartlett, Jackson Hole, USA

2015 Kaneshige Satoh, Maihama Tokio Bay, Japan

2017 Fernando Molina, Mexico

## ISCFS Founding Members

Ernest P. Caronni, MD, Italy

David J. David, MD, Australia

Milton T. Edgerton, MD, USA

Ian T. Jackson, MD, USA

Bengt Johanson, MD, Sweden

Henry K. Kawamoto, MD, USA

Daniel Marchac, MD, France

Joseph G. McCarthy, MD, USA

Ian R. Munro, MD, USA

Joseph E. Murray, MD, USA

Fernando Ortiz-Monasterio, MD, Mexico

# KEYNOTE LECTURES AND AWARDS



## Ortiz Monasterio Memorial Lecture

**2013. JACKSON HOLE, USA**

Joseph McCarthy

**2015 TOKIO, JAPÓN**

David J. David.

## Tessier Memorial Lecture

**2003. MONTEREY, CAL.**

Michael Longaker

**2005. QUEENSLAND, AUS.**

Jeffrey Richardson

**2007. BAHIA, BRAZIL**

**2009. OXFORD, UK**

**2011. LIVINGSTONE, ZAMB.**

**2013. JACKSON HOLE, USA**

**2015 TOKIO, JAPÓN**

Joseph McCarthy.

## TESSIER MEDAL RECIPIENTS

**2005 Fernando Ortiz-Monasterio**

Mexico

**2009 Linton Whitaker**

USA

**2013 Daniel Marchac**

France

**2015 Joseph McCarthy**

USA



# GENERAL INFORMATION

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## Registration

The Congress Registration desk hours are:

Monday 23 <sup>rd</sup>	17:00 - 20:00 hrs.
Tuesday 24 <sup>th</sup>	7:00 – 18:00 hrs.
Wednesday 25 <sup>th</sup>	7:00 – 18:00 hrs.
Thursday 26 <sup>th</sup>	7:30 – 10:30 hrs.
Friday 27 <sup>th</sup>	7:30 – 18:30 hrs.
Saturday 28 <sup>th</sup>	7:30 – 12:30 hrs.

## Registration Entitlements

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

## Exhibit Hall Hours

All registrants are invited to visit the exhibits located in the Hotel.

Wednesday 25 <sup>th</sup>	8:00 – 18:00 hrs.
Thursday 26 <sup>th</sup>	8:00 – 10:30 hrs.
Friday 27 <sup>th</sup>	8:00 – 18:30 hrs.
Saturday 28 <sup>th</sup>	8:00 – 12:30 hrs.

## Electricity

The standard Cancun electricity supply is 110 volts. Hotels usually offer voltage converters for 220 volt devices. Many sockets do not accept polarized or threeprong plugs so it is recommended that you bring your own adapter but you can usually buy these in the hotel shop.

## 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.

## 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.

## Congress Attire

**For the meetings and conference rooms:**

Business Casual (no jeans, shorts or bermudas)

**For the Welcome Reception:** A light long sleeve shirt with trousers. A local “guayabera” is ideal for this event.

**For the Gala Dinner: Cocktail Dress**

For men a dark suite and a tie, and for women short dresses (no long dresses are required)

**For the Chichen-Itza Tour:**

Informal Clothing: Shorts, light trousers or bermudas, shirt and comfortable shoes.

## Mobile Phones and Pagers

As a courtesy to speakers and other registrants, we request that all mobile phones and pagers are switched off or muted before entering sessions.

## No Smoking Policy

Registrants and guests should be aware that smoking is not permitted in public buildings and many hotels and restaurants including the Congress venue. Smoking is prohibited in the meeting and exhibit rooms at all times.

## Program Content Disclaimer

The content of this program is presented solely for educational purposes for use by medical practitioners. This material is intended to express the opinions, techniques or approaches of the presenters. Sponsorship of this program and/or advertising by any company or organization are not to be construed, in any fashion, as an endorsement of the materials or products presented.

## Topic and Abstract Disclaimer

All presentation titles and abstracts are printed as submitted by the speakers. ISCFs cannot be responsible for errors in spelling or content.

## Recording Policy

Recording (photographic, video and audio) of the sessions, entertainers and exhibit hall during the ISCFs Congress is **strictly prohibited**.



# PROGRAM AT A GLANCE

# PROGRAM AT A GLANCE

	Tuesday 24 <sup>th</sup>	Wednesday 25 <sup>th</sup>	Thursday 26 <sup>th</sup>	Friday 27 <sup>th</sup>	Saturday 28 <sup>th</sup>
8:00	8:25 Pre-Congress Welcome	8:00-10:30 Special Lectures Room A	8:00 - 9:00 Concurrent Session 4 Rooms A and B	7:00 - 8:30 Business Meeting	
9:00	8:30 Session 1		9:00 - 9:30 Concurrent Session 5 Rooms A and B	8:30 - 9:30 Concurrent Session 6 Rooms A	8:30 - 9:00 Concurrent Session 6 Rooms B
10:00	10:00 - 10:30 Coffee Break	9:30 - 10:30 Panel Discussion 1 Room A	9:30 - 10:00 Coffee Break: Visit to the Exhibit and E-posters presentations	9:30 - 10:30 Concurrent Session 7 Rooms A	9:00 - 10:00 Concurrent Session 7 Rooms B
11:00	10:30 - 12:45 Session 2	10:30 - 11:00 Coffee Break: Visit to the Exhibit and E-posters presentations	10:00 - 10:30 General Session 2: Fernando Ortiz Monasterio Lecture Room A	10:00 - 10:30 Coffee Break: Visit to the Exhibit and E-posters presentations	9:30 - 10:00 Coffee Break and Visit to the Exhibit
12:00	12:45-14:00 Lunch	11:00 - 12:00 Panel Discussion 2 Room A	11:00 - 21:00 Chichen Itza Tour	10:30-13:00 General Session 3: Paul Tessier Lecture Room A	10:00 - 11:30 Concurrent Session 12 Rooms A and B
13:00		12:00 - 13:00 Panel Discussion 3 Room A		11:00 - 12:00 Panel Discussion 4 Room A	11:30 - 12:30 General Session 4: Rooms A and B
14:00	14:00-16:00 Session 3	13:00 - 14:00 Lunch		12:00 - 13:00 Panel Discussion 5 Room A	
15:00		14:00 - 15:00 Concurrent Session 1 Rooms A and B		13:00 - 14:00 Lunch	
16:00	16:00 - 16:30 Coffee Break	15:00 - 16:00 Concurrent Session 2 Rooms A and B		14:00 - 15:00 Concurrent Session 8 Rooms A and B	
17:00	16:30 - 18:15 Session 4	16:00 - 16:30 Coffee Break: Visit to the Exhibit and E-posters presentations		15:00 a 16:00 Concurrent Session 9 Rooms A and B	
18:00		16:30 - 18:00 Concurrent Session 3 Rooms A and B		16:00 - 16:30 Coffee Break: Visit to the Exhibit and E-posters presentations	
19:00				16:30 - 18:30 Concurrent Session 10 Rooms A and B	
20:00		19:00 - 21:00 Opening Reception The Sunset Terrace at the Grand Fiesta Ameri- cana Coral Beach		19:30 - 20:00 Farewell Dinner Reception Foyer Grand Coral Room	
21:00				20:00 - 23:00 Farewell Dinner Grand Coral Room 1	

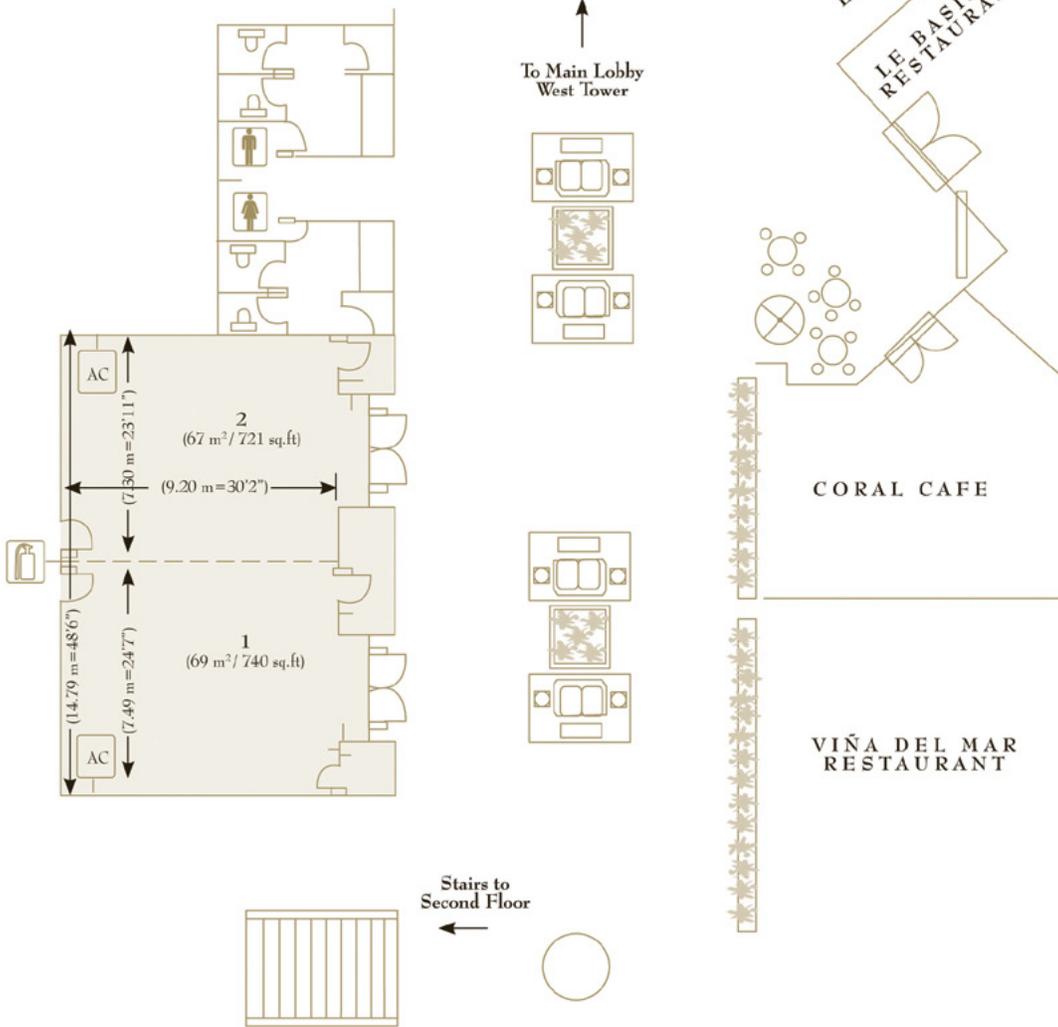


# FLOOR MAP



## Registration Area Coral Sea Room

**CORAL SEA ROOM**  
137 m<sup>2</sup> / 1,471 sq.ft Room Height: 2.90 m=9.6".





# PRE-CONGRESS PROGRAM

08:25 – 08:30

Welcome

## SESSION 1

**CHAIRMAN: Anil Madaree, M.D., CO-CHAIRMAN: Charles Davis, M.D.**

08:30 – 08:45

Juan Carlos Rodríguez, M.D. (Argentina)

**Spring assisted for posterior expansión and simultaneous fronto-orbital advancement in syndromic craniosynostosis**

08:45 – 09:00

Charles Davis, M.D. (New Zealand)

**Facial clefts: principles of planning and treatment up-date**

09:15 – 09:30

Eric Arnaud, M.D. (France)

**Long-term outcomes in sagittal craniosynostosis: what works and what doesn't. Patients with at least 10 years of follow up. Compare various techniques: open remodeling (whole vault vs regional remodeling), strip + helmet, springs with regards to specific outcome measures: shape, rate of reoperation, incidence of increased intra-cranial pressure, neuropsychological testing results.**

09:30 – 09:45

Steve Buchman, M.D. (USA)

**The Hypercorrection Technique for metopic, unicoronal and bicoronal craniosynostosis: Why the need to overcorrect the supraorbital bar. Long term results**

09:45 – 10:00

Discussion

10:00 – 10:30

Coffee Break

## SESSION 2:

**CHAIRMAN: Steve Buchman, M.D., CO-CHAIRMAN: Kaneshige Satoh, M.D.**

10:30 – 10:45

Jesse Taylor, M.D. (USA)

**Treatment of Unicoronal craniosynostosis: timing, type, and long-term outcomes. Panelists who do various types of remodeling (strip + helmet, springs, distraction, conventional unilateral remodeling, conventional bilateral remodeling) can debate their results**

10:45 – 11:00

Irene Mathijssen, M.D. (The Netherlands)

**Challenging cases in infant craniosynostosis surgery: (case presentations of kleebschdel, pan-synostosis, syndromic w airway compromise and globe exposure: what would panelists do, when, and why? )**

11:00 – 11:15

Discussion

11:15 – 12:30

**My best case ever after, my medical, scientific and human reasons**

ISCFS Past-Presidents Session:

Chairman: Fernando Molina, M.D.

Co-Chairman: Irene Mathijssen, M.D.

Speakers: Anil Madaree, M.D. (South Africa), Kenneth E. Salyer, M.D. (USA), Scott Bartlett, M.D. (USA), Joseph G. McCarthy, M.D. (USA), S. Anthony Wolfe, M.D. (USA), Kaneshige Satoh, M.D. (Japan), Linton A. Whitaker, M.D. (USA), Steven Wall, M.D. (UK)

12:30 – 12:45

Discussion

12:45 – 14:00 Lunch

### SESSION 3:

**CHAIRMAN: Eric Arnaud, M.D., CO-CHAIRMAN: Jesse Taylor, M.D.**

- 14:00 – 14:15 Vera Lucia Cardim, M.D.  
**Observation of long-term craniosynostosis: relapse or biological continuity of a congenital deformity**
- 14:15 – 14:30 Joseph Losee, M.D. (USA)  
**New techniques in cleft palate surgery: buccal fat, buccal myomucosal flaps, etc.**
- 14:30 – 14:45 Derec M. Steinbacher, M.D. (USA)  
**Evolving techniques in Orthognathic surgery: surgery first, CAD/CAM planning, custom-milled plates and screws, mandible first vs maxilla first, the role of soft tissue planing in complex CF cases**
- 14:45 – 15:00 **Discussion**
- 15:00 – 16:00 **Hemifacial Microsomia Panel:  
Controversies in hemifacial macrosomia. Timing and vector selection in mandibular distraction. Early versus late MDO. External versus semi-buried devices.  
Orthognathic vs Distraction**  
Moderator: Scott Bartlet, M.D., Joseph Losee, M.D.  
Panelist: Joseph G. Mc Carthy, M.D., Fernando Molina, M.D., Derec M. Steinbacher, M.D.  
Pedro Santiago, D.D.S. (USA)
- 16:00 – 16:30 Coffee Break: Visit to the Exhibit and E-Posters Presentations

### SESSION 4:

**CHAIRMAN: Steven Wall, M.D., CO-CHAIRMAN: Juan Carlos Rodríguez, M.D**

- 16:30 – 16:45 David Dunaway, M.D. (England)  
**Evolving concepts in syndromic craniosynostosis: The midface, when, why, what? Choice of midface correction (Lefort III, monobloc, Lefort II + zygoma re-positioning, facial bipartition).Timing of midface surgery and rationale for each in an Aperts, Crouzon, Pfeifer patient**
- 16:45 – 17:00 Juan Martin Chavanne, M.D. (Argentina)  
**The five keys to success in hiperteleorbitism: current strategies and morphologic outcomes with surgical correction**
- 17:15 – 17:30 Gary Rogers, M.D. (USA)  
**Normal cephalic, asymptomatic craniosynostosis: found by chance vs. late onset causing functional problems. Timing of surgery and the potential functional implications**
- 17:30 – 17:45 Roberto L. Flores  
**The Surgical Treatment of Pierre Robin Sequence: To distract or not to distract.**
- 17:45 – 18:00 Nivaldo Alonso, M.D. (Brazil)  
**Syndromic Craniosynostosis: stability or relapse in the long term.**
- 18:00 – 18:15 Discussion



# OFFICIAL PROGRAM

## ROOM A

### 08:00 – 09:30 am **Special Lectures**

- 08:00 – 08:05 am **Welcome to Cancun, Mexico**  
**Opening Remarks**
- 08:05 - 08:25 am **Diseases in Prehispanic Mexico**  
Speaker: Eduardo Matos Moctezuma
- 08:25 – 08:45 am **Guest Lecture: ISCFS: A petite histoire**  
Speaker: Joseph G. Mc Carthy, M.D.
- 08:45 - 08:55 am **Eulogy to Jacques van der Muelen (The Netherlands)**  
Speaker: Joseph Gruss, M.D.
- 08:55 – 09:05 am **Special Lecture: Safely in Reconstructive Surgery**  
Speaker: Eugenio Rodríguez Olivares, M.D.
- 09:05 – 09:11 am **Special Lecture: Craniopagus**  
Speaker: Jesse Taylor, M.D.
- 09:11 - 9:30 am **President Lecture: Curiosity in Craniofacial Surgery**  
Speaker: Fernando Molina, M.D.

## General Session 1

- 09:30 – 10:30 am **PANEL DISCUSSION 1**  
**The non-syndromic craniosynostosis: Exploring the best treatment**  
Moderator: Kennet Salyer, M.D.  
Panelist: John Persing, M.D., Scott Bartlett, M.D., Irene Mathijssen, M.D., Suresh Magge, M.D.
- 10:30 – 11:00 am Coffee Break: Visit to the Exhibit and E-Posters Presentations
- 11:00 – 12:00 pm **PANEL DISCUSSION 2**  
**Midface Distraction: Long Term Results**  
Moderator: Richard Hopper  
Panelist: Jeffrey Fearon, Joseph G. Mc Carthy, Richard Hopper
- 12:00 – 01:00 pm **PANEL DISCUSSION 3**  
**The Apert Syndrome: analyses results after Classic osteotomies vs. distraction**  
Moderator: Antony Wolfe  
Panelist: Eric Arnaud, David Dunaway, James Bradley, Richard Hopper
- 01:00 – 02:00 pm Lunch

## ROOM A

02:00 – 03:00 pm

### CONCURRENT SESSION 1

#### Syndromic Craniosynostosis

Moderators: Kaneshige Satoh, M.D., Andrew Heggie, M.D.

2:00 pm  
Lectern 1

#### 1 THE EFFICIENCY OF ANTERIOR AND POSTERIOR DISTRACTION OSTEOGENESIS FOR CRANIOSYNOSTOSIS REPAIR

Presenter: Amanda A. Gosman, M.D. (6 Min)

Authors: Amanda A. Gosman, Michael G. Brandel, Cecilia L. Dalle Ore, Chris M. Reid, Samuel Lance, Hal Meltzer

Institution: University of California, San Diego

2:06 pm  
Lectern 2

#### 2 IMPROVEMENT OF SLEEP APNEA AFTER FRONTOFACIAL MONOBLOC IN 108 FACIOCRANIOSYNOSTOSES

Presenter: Eric Arnaud M.D. (6 Min)

Authors: Eric Arnaud, S. Haber, G. Paternoster, S. James, B. Fauroux, Ph. Meyer

Institution: Hospital Necker Craniofacial Unit

2:12 pm  
Lectern 1

#### 3 A SOFT TISSUE PREDICTION MODEL TO EVALUATE OUTCOME OF FRONTOFACIAL DISTRACTION SURGERY IN SYNDROMIC CRANIOSYNOSTOSIS

Presenter: Freida Angullia M.D. (3 min)

Authors: Freida Angullia, W R Fright, R Richards, A D Linney, S Schievano, D J Dunaway

Institution: Great Ormond Street Hospital for Children

2:15 pm  
Lectern 2

#### 4 THE WHITAKER CLASSIFICATION OF CRANIOSYNOSTOSIS OUTCOMES: AN ASSESSMENT OF INTER-RATER RELIABILITY FOR FRONTAL-ORBITAL SURGERY

Presenter: Ari Wes M.D. (3 min)

Authors: Ari Wes, Sanjay Naran, James Sun, Scott Bartlett, Linton Whitaker, Jesse Taylor

Institution: Children's Hospital of Philadelphia

2:18 pm  
Lectern 1

#### 5 TELESCOPING WITH MULTIPLE REVOLUTION CRANIAL OSTEOTOMIES IN PATIENTS WITH SIMPLE CRANIOSYNOSTOSIS

Presenter: Diego Jose Caycedo M.D. (3 min)

Authors: Diego Jose Caycedo, Marcela Cabal, Luis Fernando Santacruz

Institution: Universidad del Valle, Centro Medico Imbanaco, Cali - Colombia

2:21 pm  
Lectern 2

#### 6 SELF-STABILIZING S-OSTEOTOMY IN FOREHEAD REMODELLING FOR CRANIOSYNOSTOSIS

Presenter: David Johnson M.D. 170 (3 min)

Authors: David Johnson, Greg Thomas, Steven Wall

Institution: Oxford Craniofacial Unit

2:24 pm	Discussion (10 min)
2:34 pm Lectern 1	<p><b>7</b> <b>LATE PRESENTATION OF SYRINX IN CROUZON PATIENTS AND THEIR CLINICAL SYMPTOMS</b> Presenter: Irene Mathijssen M.D. (6 min) Authors: Irene Mathijssen, Priya Doerga, Robbin de Goederen, Sarah Versnel, Koen Joosten, Marie-Lise van Veelen Institution: Erasmus MC</p>
2:40 pm Lectern 2	<p><b>8</b> <b>10-YEAR OUTCOME OF PRE-ADOLESCENT LEFORT III DISTRACTION OSTEOGENESIS IN SYNDROMIC CRANIOSYNOSTOSIS</b> Presenter: Pradip Shetye M.D. (6 min) Authors: Pradip Shetye, Travis L. Gibson, Barry H. Grayson, Joseph G. McCarth Institution: NYU Langone Medical Center</p>
2:46 pm Lectern 1	<p><b>9</b> <b>PEDIATRIC BLOOD MANAGEMENT TEAM IN CRANIOFACIAL SURGERY</b> Presenter: John Giroto M.D. (6 min) Authors: John Giroto, Brian Boville, Josh Kelley, John Polley, Robert Mann, Dominic Sanfilippo Institution: Helen DeVos Childrens Hospital</p>
2:52 pm	Questions and Discussion (8 min)

### ROOM B

02:00 – 03:00 pm	<p><b>CONCURRENT SESSION 1</b> <b>Syndromic Craniosynostosis</b> Moderators: Cornelius Klein, M.D., Pia Vuola, M.D.</p>
2:00 pm Lectern 1	<p><b>10</b> <b>THE TRANSFUSION OUTCOME OF PRE-OPERATIVE ADMINISTRATION OF IRON IN INFANT CRANIOSYNOSTOSIS SURGERY VE</b> Presenter: Chelsea Durocher, M.D. Lisa Luxford, M.D. (3 min) Authors: Chelsea Durocher M.D., Lisa Luxford, Benita Lee, Nadia Naraine, Tara Der, John Phillips Institution: The Hospital for Sick Children</p>
2:03 pm Lectern 2	<p><b>11</b> <b>RECTUS MUSCLE CYCLOROTATION AND STRABISMUS: IMPACT OF ORBITAL ANATOMY IN SYNDROMIC CRANIOSYNOSTOSIS</b> Presenter: Linda Dagi, MD (3 min) Authors: Linda Dagi, MD, Sarah Mackinnon, MSc, OC(C), David Zurakowski, PhD, Sanjay Prabhu, MBBS Institution: Boston Children's Hospital</p>

- 2:06 pm  
Lectern 1
- 12**  
**CHANGE IN SLEEP ARCHITECTURE AFTER CRANIAL VAULT SURGERY AND/OR SURGERY FOR OBSTRUCTIVE SLEEP APNEA IN SYNDROMIC CRANIOSYNOSTOSIS**  
Presenter: Robbin de Goederen M.D. (3 min)  
Authors: Robbin de Goederen M.D, Caroline Driessen, Irene Mathijssen  
Institution: Erasmus MC Rotterdam
- 2:09 pm  
Lectern 2
- 13**  
**MORPHOLOGIC SEVERITY OF CRANIOSYNOSTOSIS: IMPLICATIONS FOR SPEECH AND NEURODEVELOPMENT**  
Presenter: Kamlesh B. Patel M.D. (6 min)  
Authors: Damini Tandon, Gary B. Skolnick, Lynn M. Grames, Mary M. Craddock, Matthew D. Smyth, Kamlesh B. Patel  
Institution: Division of Plastic and Reconstructive Surgery, Department of Surgery, Washington University School of Medicine
- 2:15 pm  
Lectern 1
- 14**  
**NEURODEVELOPMENTAL, COGNITIVE, SPEECH, LANGUAGE, AND PSYCHOSOCIAL OUTCOMES FOR CHILDREN WITH A MUTATION IN THE TCF12 GENE AND ASSOCIATED CRANIOSYNOSTOSIS: A RETROSPECTIVE STUDY**  
Presenter: Dr. Patrick Kennedy-Williams (6min)  
Authors: Dr. Patrick Kennedy-Williams, Sarah Kilcoyne, Dr. Helen Care, Prof. Andrew Wilkie, Mr David Johnson  
Institution: Oxford University Hospitals NHS Foundation Trust
- 2:21 pm
- Discussion (10 min)
- 2:31 pm  
Lectern 2
- 15**  
**THE LIVERPOOL-YORK HEAD MODEL - A NOVEL SHAPE-BASED OUTCOMES TOOL FOR CRANIOFACIAL SURGEONS**  
Presenter: Christian Duncan, M.D. (6 min)  
Authors: Christian Duncan, Mr Hang Dai Meng, Mr Will Smith PhD, Mr Nick Pears PhD  
Institution: Alder Hey Childrens Hospital NHSFT
- 2:37 pm  
Lectern 1
- 16**  
**FRONTO-FACIAL FEATURES OF UNILATERAL LAMBDOID CRANIOSYNOSTOSIS: A MULTI-CENTER ASSESSMENT**  
Presenter: Joseph E Losee, M.D. (6 min)  
Authors: Jonathan Y Lee, Sanjay Naran, Jesse A Taylor, Jesse A Goldstein, Scott P Bartlett, Joseph E Losee  
Institution: University of Pittsburgh Medical Center
- 2:43 pm  
Lectern 2
- 17**  
**HYDROCEPHALUS IN FGFR BASED SYNDROMIC CRANIOSYNOSTOSIS - CORRELATING DISTINCT GENETIC MUTATIONS**  
Presenter: Steven Wall, M.D. (6 min)  
Authors: Steven Wall M.D., O Manley, A Wilkie, D Jayamohan, D Johnson, S Magdum  
Institution: Oxford Craniofacial Unit

2:49 pm  
Lectern 1

**18**

**ANTERIOR CRANIAL VAULT RECONSTRUCTION WITH DISTRACTION FOR PRIMARY AND SECONDARY CRANIOSYNOSTOSIS REPAIR**

Presenter: Stephan Barrientos, MD ( 3 min)

Authors: Jason Miller, M.D., Stephan Barrientos, M.D.

Institution: University of Nebraska Medical Center

2:52 pm

Discussion ( 8 min)

### ROOM A

03:00 – 04 :00 pm

**CONCURRENT SESSION 2**

**Sagittal Synostosis**

Moderators: Steven Wal, M.D., Jack Van der Meulen, M.D.

3:00 pm  
Lectern 2

**19**

**MANAGING THE VARIATION IN DEFORMITY IN SAGITTAL SYNOSTOSIS USING CALVARIAL VAULT REMODELING**

Presenter: David Johnson M.D. (3 min)

Authors: David Johnson M.D., Greg Thomas, Shailendra Magdum, Jay Jayamohan, Peter Richards, Steven Wall

Institution: Oxford Craniofacial Unit

3:03 pm  
Lectern 1

**20**

**CRANIOTOMY WITH INTACT PERIOSTEUM REDUCES BLOOD LOSS IN PI-PLASTY SURGERY FOR SAGITTAL SYNOSTOSIS**

Presenter: Tobias Hallén M.D. (3 min)

Authors: Tobias Hallén M.D., Lars Kölby, Robert Olsson, Peter Tarnow, Giovanni Maltese

Institution: Dept of Neurosurgery, Sahlgrenska University Hospital, Gothenburg, Sweden

3:06 pm  
Lectern 2

**21**

**NUMERICAL MODELLING TO ASSESS THE EFFECT OF SURGICAL PARAMETERS ON SPRING CRANIOPLASTY OUTCOMES**

Presenter: Alessandro Borghi M.D. (3 min)

Authors: Alessandro Borghi M.D., Jan Bruse, Naiara Rodriguez Florez, Silvia Schievano, David Dunaway, Owase Jeelani

Institution: UCL GOS Institute of Child Health and Great Ormond Street Hospital

3:09 pm  
Lectern 1

**22**

**LONG-TERM OUTCOMES OF SPRING-ASSISTED CRANIOPLASTY FOR SAGITTAL CRANIOSYNOSTOSIS**

Presenter: Daniel Couture M.D. (6 min)

Authors: Christopher Runyan, Daniel Couture, Christopher Michael Runyan, Edreca Allison Thompson, Kyle Gabrick, Jungwon Genevieve Park, Lisa Renee David

Institution: Wake Forest

- 3:15 pm  
Lectern 2
- 23**  
**SAGITTAL SYNOSOTOSIS: ADDRESSING THE TEMPORAL CONSTRAINT IN ENDOSCOPIC CORRECTION**  
Presenter: Nicole Kurnik M.D. (6min)  
Authors: Davinder J. Singh, Davinder J. Singh, Nicole Kurnik, Ruth Bristol, David Shafron  
Institution: Phoenix Childrens Hospital/Barrow Cleft and Craniofacial Center/Mayo School of Medicine
- 3:21 pm  
Discussion (10 min)
- 3:31 pm  
Lectern 1
- 24**  
**THREE-DIMENSIONAL HEAD SHAPE CHANGES AFTER EXTENDED SAGITTAL STRIP CRANIECTOMY AND HELMET THERAPY**  
Presenter: Rami R. Hallac (3 min)  
Authors: Rami R. Hallac, Pang-yun Chou, Christopher Warne, Neil M. Stewart, Alex A. Kan, Christopher Derderian  
Institution: Childrens Health
- 3:34 pm  
Lectern 2
- 25**  
**LONGITUDINAL CORRELATES OF NEURODEVELOPMENT IN PATIENTS WITH UNICORONAL OR METOPIC CRANIOSYNOSTOSIS**  
Presenter: Alexis L. Johns, PhD (3 min)  
Authors: Alexis L. Johns, PhD, J. Gordon McComb, MD, Michaela Tsuha, BS, Mark M. Urata, M.D., DDS  
Institution: Childrens Hospital Los Angeles
- 3:37 pm  
Lectern 1
- 26**  
**A SINGLE INSTITUTION EXPERIENCE WITH ENDOSCOPIC SUTURECTOMY AND CRANIAL VAULT REMODELLING FOR TREATMENT OF SAGITTAL CRANIOSYNOSTOSIS**  
Presenter: Mark R. Proctor, M.D. (6min)  
Authors: John G. Meara, Mark R. Proctor, Kathryn V. Isaac  
Institution: Boston Children's Hospital
- 3:43 pm  
Lectern 2
- 27**  
**DEVELOPMENTAL OUTCOMES IN CHILDREN WITH SAGITTAL CRANIOSYNOSTOSIS AT 3 AND 5 YEARS OF AGE**  
Presenter: Helen Care M.D. (3 min)  
Authors: Helen Care M.D., Jo Horton, Maria Knapp, Natasha Rooney, Louise Dalton, David Johnson  
Institution: Oxford Craniofacial Unit, Oxford University Hospitals NHS Foundation Trust, Oxford UK
- 3:46 pm  
Lectern 1
- 28**  
**INITIAL EXPERIENCE OF A MODIFIED MELBOURNE TECHNIQUE FOR SCAPHOCEPHALY CORRECTION AT GREAT ORMOND STREET**  
Presenter: Julia Sharma M.D. (3 min)  
Authors: Greg James, Julia Sharma M.D., Alessandro Borghi, Juling Ong, David J Dunaway, N u Owase, Jeelani, Justine L O Hara, Greg James  
Institution: Great Ormond Street Hospital
- 3:49 pm  
Discussion (10 min)

ROOM B

03:00 – 04:00 pm

**CONCURRENT SESSION 2**

**Metopic and Sagittal Synostosis**

Moderators: Stephen Dover, M.D., Lisa David, M.D.

3:00 pm  
Lectern 2

**29**

**LONG-TERM RESULTS IN ISOLATED METOPIC SYNOSTOSIS - A 22-YEAR REVIEW OF 245 TREATED PATIENTS**

Presenter: Hamidreza Natghian M.D. (3 min)

Authors: Hamidreza Natghian M.D., Marie Song, Jay Jayamohan, David Johnson, Shailendra Magdum, Steven Wall

Institution: Oxford Craniofacial Unit

3:03 pm  
Lectern 1

**30**

**SURGICAL OUTCOMES IN TRIGONOCEPHALY CORRECTION USING SPRING ASSISTED THERAPY**

Presenter: Juan Martin Chavanne M.D. (3min)

Authors: Juan Martin Chavanne M.D., Alfredo Houssa

Institution: WCF Bs.As. Craniofacial Center

3:06 pm  
Lectern 2

**31**

**3D CT ANALYSIS OF LATE DEFORMITY AFTER FRONTO-ORBITAL REMODELLING FOR METOPIC SYNOSTOSIS**

Presenter: Silvia Schievano M.D. (3 min)

Authors: Naiara Rodriguez-Florez, Arantzazu Florez-Tapia, Silvia Schievano, NU Owase Jeelani, David J Dunaway, Richard Hayward

Institution: UCL GOS Institute of Child Health and Great Ormond Street Hospital for Children

3:09 pm  
Lectern 1

**32**

**THE CORRECTION OF ORBITAL HYPOTELORISM**

Presenter: S Anthony Wolfe M.D. (6 min)

Authors: S Anthony Wolfe M.D.

Institution: Division of Plastic Surgery Miami Children's Health System

3:15 pm  
Lectern 2

**33**

**THE METOPIC SYNOSTOSIS CORRECTION WITH DISTRACTION**

Presenter: Damian Palafox, M.D. (6min)

Authors: Damian Palafox, M.D, Pablo Arrieta-Joffe, Fernando Molina

Institution: Fernando Ortiz Monasterio Foundation, Hospital Angeles del Pedregal Mexico City

3:21 pm

Discussion (10 min)

3:31 pm  
Lectern 1

**34**

**QUANTITATIVE OUTCOMES OF ENDOSCOPIC STRIP CRANIECTOMY FOR METOPIC CRANIOSYNOSTOSIS WITH SEVERE TRIGONOCEPHALY**

Presenter: Orgest Lajthia (3 min)

Authors: Orgest Lajthia, Chima O. Oluigbo, John S. Myseros, Robert F. Keating, Gary F. Rogers, Suresh N. Magge

Institution: Childrens National Health System

3:34 pm  
Lectern 2

**35**  
**EARLY SURGICAL CORRECTION OF TRIGONOCEPHALY WITH MINIMALLY INVASIVE METOPIC AND LATERAL FRONTO-ORBITAL OSTECTOMIES: THE ADDITION OF BILATERAL BLEPHAROPLASTY INCISIONS ALLOWS A COMPLETE RELEASE AND ADVANCEMENT OF THE FRONTO-ORBITAL BAR**

Presenter: Silvio Podda M.D. (3 min)  
Authors: Silvio Podda M.D., Francesco Gargano  
Institution: St. Josephs Childrens Hospital

3:37 pm  
Lectern 1

**36**  
**SAGITTAL CRANIECTOMY WITH BIPARIETAL MORCELLATION: OUTCOME ANALYSIS OF AGE AT SURGERY AND EXTENDED TECHNIQUES**

Presenter: Brooke French, M.D. (6 min)  
Authors: Brooke French, M.D., C. Corbett Wilkinson, M.D., Brent O'Neill, M.D., David Khechoyan, M.D., Ken Winston, M.D., Aaron Kian, M.D.  
Institution: University of Colorado School of Medicine Division of Plastic and Reconstructive Surgery

3:43 pm  
Lectern 2

**37**  
**THE MICHIGAN GULLWING APPROACH TO TOTAL CRANIAL VAULT REMODELING FOR SAGITTAL SYNOSTOSIS: LONG TERM OUTCOMES**

Presenter: Steven Buchman M.D. (6 min)  
Authors: Steven Buchman M.D. Fan Liang, Molly McNeely, Riaz Nabi, Ali Trachtenberg, Christian Vercler  
Institution: University of Michigan

3:49 pm  
Lectern 1

**38**  
**OUTCOMES OF EARLY EXTENDED MIDLINE STRIP CRANIECTOMY FOR SAGITTAL SYNOSTOSIS**

Presenter: Parks CJ, M.D. (3 min)  
Authors: Ellenbogen JR, England JL, Turnock C, Parks CJ, M.D.  
Institution: Alder Hey Childrens NHS Foundation Trust

3:52 pm

Discussion (8 min)

04:00 – 04:30 pm

Coffee Break: Visit to the Exhibit and E-Posters Presentations

**ROOM A**

04:30 – 06:00 pm

**CONCURRENT SESSION 3**

**Syndromic, Rare Craniosynostosis and Hypertelorism**

Moderators: Xiongzhen Mu, M.D., Dov Charles Goldenberg, M.D.

4:30 pm  
Lectern 1

**39**

**MULTIPLE SUTURE SYNOSTOSIS ASSOCIATED WITH CONGENITAL MYOTONIC DYSTROPHY: A CASE REPORT**

Presenter: Ikkei Tamada M.D. (3 min)

Authors: Ikkei Tamada M.D., Hiroshi Yoshihashi, Satoshi Ihara

Institution: Department of Plastic and Reconstructive Surgery, Tokyo Metropolitan Childrens Medical Center

4:33 pm  
Lectern 2

**40**

**DIPYRIDAMOLE-LOADED 3D-PRINTED BIOACTIVE CERAMIC SCAFFOLDS PROMOTE BONE REGENERATION AND PRESERVE CRANIAL SUTURE PATENCY IN A SKELETALLY-IMMATURE RABBIT CALVARIAL DEFECT MODEL**

Presenter: Lukasz Witek, MD

Authors: Jonathan M. Bekisz, BA, Roberto L. Flores, MD, Lukasz Witek, MSci, PhD, Christopher D. Lopez, BA, Andrea Torroni, MD, Paulo G. Coelho, DDS, PhD

Institution: New York University School of Medicine

4:36 pm  
Lectern 1

**41**

**SURGERY OF AURICULOTEMPORAL NEUROFIBROMATOSIS IN YOUNG PATIENTS**

Presenter: Mckay Mckinnon M.D. (3 min)

Authors: Mckay Mckinnon M.D., Nguyen Hong Ha, M.D., Nguyen Tuan, M.D.

Institution: LurieChildrens Hospital, Presence St. Joseph Hospital

4:39 pm  
Lectern 2

**42**

**NON-SYNDROMIC COMPLEX CRANIOSYNOSTOSIS IN FINLAND 1987-2010**

Presenter: Pia Vuola M.D. (3 min)

Authors: Pia Vuola M.D., Arja Heliovaara, Annukka Ritvanen, Virve Koljonen, Junnu Leikola

Institution: Helsinki University Hospital, Craniofacial Centre, Finland

4:42 pm  
Lectern 1

**43**

**LARGE SERIES OF CRANIAL VAULT REMODELING IN PATIENTS WITH SHUNT-INDUCED CRANIOSYNOSTOSIS: OUTCOMES & TREATMENT ALGORITHM**

Presenter: Michael Golinko M.D. (3 min)

Authors: Michael Golinko M.D., Danielle Atwood, PhD, Eylem Ocal M.D.

Institution: Arkansas Children's Hospital

4:45 pm  
Lectern 2

**44**

**A TWENTY-YEAR RETROSPECTIVE ON LONG-TERM CRANIOSYNOSTOSIS OUTCOMES AT THE UNIVERSITY OF MICHIGAN**

Presenter: Fan Liang, M.D. (3 min)

Authors: Fan Liang, M.D, Fan Liang, Peter Beck, Meike Stoldts, Eboni Saywer, Christian Vercler, Steven Buchman

Institution: University of Michigan

- 4:48 pm  
Lectern 1
- 45**  
**SYSTEMATIC CLASSIFICATION OF THE COMPLICATION PANORAMA IN 1023 CONSECUTIVE CRANIOFACIAL OPERATIONS**  
Presenter: Bhatti-Softeland Madiha, M.D. (6 min)  
Authors: Madiha Softeland, Bhatti-Softeland Madiha, M.D., Paganini Anna, MSc, Maltese Giovanni, M.D, PhD, Tarnow Peter, M.D., PhD, Kolby Lars, M.D., PhD  
Institution: Madiha Softeland
- 4:52 pm  
Discussion (10 min)
- 5:02 pm  
Lectern 2
- 46**  
**ARRHINIA, CONCEPTS AND TREATMENT**  
Presenter: Rolando Prada, M.D. (6 min)  
Authors: Rolando Prada  
Institution: Hospital Infantil Universitario de San José
- 5:08 pm  
Lectern 1
- 47**  
**VARIANT OF FRONTOORBITAL ADVANCEMENT BEFORE HYPERTELORISM CORRECTION**  
Presenter: J. Britto M.D. (3 min)  
Authors: Eric Arnaud, D. Benderbous, J. Britto, G. Paternoster, S. James, E. Vergnaud, M. Zerah  
Institution: Hospital Necker craniofacial unit
- 5:11 pm  
Lectern 2
- 48**  
**DIGITAL MEDICINE IN THE CORRECTION OF HYPERTELORISM**  
Presenter: Zheyuan Yu M.D. (3 min)  
Authors: Zheyuan Yu M.D, Min Wei, Jie Yuan, Liang Xu, Xiongzheng Mu  
Institution: Dept. of PRS, Shanghai Ninth People Hospital
- 5:14 pm  
Lectern 1
- 49**  
**PARTICULATE BONE GRAFT FOR RECONSTRUCTION OF THE NASAL DORSUM AFTER ORBITAL BOX OSTEOTOMIES**  
Presenter: Anna Carlson, M.D. (3 min)  
Authors: Anna Carlson, M.D., Andre Marshall, M.D., Jeffrey Marcus, M.D.  
Institution: Duke University Hospital Division of Plastic Surgery
- 5:17 pm  
Discussion (10 min)
- 5:27 pm  
Lectern 2
- 50**  
**A 22-YEAR REVIEW OF THE USE OF STAINLESS WIRES IN CRANIOSYNOSTOSIS SURGERY - A SINGLE CENTRE STUDY**  
Presenter: Hamidreza Natghian M.D. (6 min)  
Authors: Hamidreza Natghian M.D., Marie Song, Steven Wall, David Johnson  
Institution: Oxford Craniofacial Unit

5:33 pm  
Lectern 1

**51**  
**IMPROVED PERIOPERATIVE OUTCOMES ASSOCIATED WITH CRANIOFACIAL TEAM ANESTHESIOLOGIST**

Presenter: Albert K. Oh, M.D. (6 min)

Authors: Albert K. Oh, Srijaya K. Reddy, Sophie R. Pestieau, Erin M. Rada, Robert F. Keating, Gary F. Rogers

Institution: Children's National Health System

5:39 pm  
Lectern 2

**52**  
**MINIMIZING ALLOGENIC BLOOD TRANSFUSIONS IN CHILDREN UNDERGOING PRIMARY CRANIAL VAULT REMODELING FOR CRANIOSYNOSTOSIS: AKRON CHILDREN'S HOSPITAL PROTOCOL**

Presenter: Bin Song M.D. (3 min)

Authors: Bin Song M.D., Ananth Murthy, Niyant Patel

Institution: Akron Childrens Hospital

5:42 pm  
Lectern 1

**53**  
**RISK FACTORS FOR DELAYED REFERRAL TO A CRANIOFACIAL SPECIALIST FOR TREATMENT OF CRANIOSYNOSTOSIS**

Presenter: Brad Gandolfi, M.D. (3min)

Authors: Anna Carlson, M.D., Brad Gandolfi, M.D., Danielle Sobol, M.D., Alfredo Farjat, PhD, Alexander Allori, M.D., MPH, Jeffrey Marcus, MD, Anna R Carlsona, MD

Institution: Duke University Hospital Division of Plastic Surgery

5:45 pm  
Lectern 2

**54**  
**SQUAMOSAL CRANIOSYNOSTOSIS: EXPECTED PHENOTYPE AND MANAGEMENT**

Presenter: Alexander Y. Lin, MD, FACS (3min)

Authors: Alexander Y. Lin, MD, FACS, Kashyap Tadisina

Institution: Saint Louis University School of Medicine

5:48 pm  
Lectern 1

**55**  
**SIN? SALVAGE? OR FINAL SOLUTION? ALLOPLASTIC RECONSTRUCTION IN HEMIFACIAL MICROSOMIA (HFM)**

Presenter: John Polley, M.D. (3 min)

Authors: John Polley, M.D., John Polley, M.D., John Girotto, M.D., Spiros Lazaros, M.D., Neophytos Demetriades, DDS M.D., Joseph Taylor, M.D., Nicholas Adams, M.D.

Institution: Helen DeVos Childrens Hospital, Grand Rapids, Michigan USA

5:51 pm

Discussion (9 min)

### ROOM B

04:30 – 06:00 pm

#### CONCURRENT SESSION 3

##### Plagiocephaly

Moderators: Jesse Taylor, M.D., Jacobo Felemovicius, M.D.

4:30 pm  
Lectern 1

**56**

##### **A COMPARATIVE ANALYSIS OF LONG-TERM OUTCOMES FOR TREATMENT OF ISOLATED UNILATERAL CORONAL SYNOSTOSIS WITH ENDOSCOPIC SUTURECTOMY OR FRONTO-ORBITAL ADVANCEMENT**

Presenter: Kathryn V. Isaac M.D. (3 min)

Authors: Kathryn V. Isaac M.D., Sarah MacKinnon, John G. Meara, Mark R. Proctor, Linda R. Dagi

Institution: Boston Childrens Hospital

4:33 pm  
Lectern 2

**57**

##### **NON-SYNDROMIC UNICORONAL SYNOSTOSIS: DOES THE FACE UNTWIST?**

Presenter: Jonathan A. Burge, M.D. (3 min)

Authors: Mark J. Edmondson, Sebastian M. A. Brooke, Jonathan A. Burge, M.D.

Institution: The Royal Childrens Hospital, Melbourne

4:36 pm  
Lectern 1

**58**

##### **NON-INVASIVE ICP MEASUREMENT IN CRANIOFACIAL DISORDERS**

Presenter: T Forcht Dagi (6 min)

Authors: T Forcht Dagi, Linda Dagi, Javier Fandino, Robert Keating, Joe Sam Robinson, Arminas Ragauskas

Institution: Queens University Belfast and Vittamed Neurosciences Corp

4:42 pm  
Lectern 2

**59**

##### **A VOLUMETRIC AND CRANIOMETRIC ANALYSIS OF CRANIAL BASE IN UNICORONAL CRANIOSYNOSTOSIS**

Presenter: Hoppe Ian, M.D. (3 min)

Authors: Hoppe Ian, M.D, Daniel Mazzaferro, Ari Wes, Sanjay Naran, Scott Bartlett, Jesse Taylor

Institution: The Childrens Hospital of Philadelphia

4:45 pm  
Lectern 1

**60**

##### **FMRI REVEALS ALTERED BRAIN ACTIVATION IN SPATIAL WORKING MEMORY IN UNICORONAL SYNOSTOSIS**

Presenter: Jenny F. Yang, M.D. (3 min)

Authors: Jenny F. Yang, M.D, Eric D.K. Brooks, MD, Cheryl LaCadie, MS, Alex Sun, BS, Derek M. Steinbacher, M.D., DMD, FACS, John A. Persing, M.D.

Institution: Yale Plastic and Reconstructive Surgery

4:48 pm

Discussion (10 min)

4:58 pm  
Lectern 2

**61**  
**ALTHOUGH REFERRALS FOR NON-SYNDROMIC FRONTAL PLAGIOCEPHALY HAVE BEEN INCREASED DURING THE PAST SEVERAL YEARS, SUCCESSFUL SURGICAL REPAIR OF UNICORONAL SYNOSTOSIS (UCS) REMAINS A CHALLENGE FOR CRANIOFACIAL SURGEONS**

Presenter: Amir Daryani M.D. (3 min)

Authors: Amir Daryani M.D.

Institution: sbmu

5:01 pm  
Lectern 1

**62**  
**SPEECH AND LANGUAGE DEVELOPMENT IN CHILDREN WITH SYNDROMIC AND NON-SYNDROMIC UNICORONAL SYNOSTOSIS: A LONGITUDINAL RETROSPECTIVE REVIEW**

Presenter: Sarah Kilcoyne M.D. (3 min)

Authors: Sarah Kilcoyne M.D., Carrie Luscombe, Andrew Wilkie, Steven Wall, David Johnson

Institution: Oxford Craniofacial Unit

5:04 pm  
Lectern 2

**63**  
**3D PRINTING GUIDED SURGERY IN TREATMENT OF UNICORONAL CRANIOSYNOSTOSIS**

Presenter: Tarek Elbanoby M.D (3 min)

Authors: Tarek Elbanoby M.D, Amr Mohammed Elbatawy, Gaber M. Aly,  
Usama A. Abdelfattah, Mohab A. Sharafuddin

Institution: Al Azhar University, Cairo, Egypt

5:07 pm  
Lectern 1

**64**  
**INTERNAL DISTRACTION OSTEOGENESIS WITH PIEZOSURGERY OBLIQUE OSTEOTOMY OF SUPRAORBITAL MARGIN OF FRONTAL BONE FOR THE TREATMENT OF UNILATERAL CORONAL SYNOSTOSIS**

Presenter: Shen Weimin, M.D. (6 Min)

Authors: Cui Jie, Shen Weimin M.D., Jianbing Chen, Ji Yi, Liangliang Kong

Institution: Department of Plastic Surgery, Children's Hospital of Nanjing Medical University

5:13 pm

Discussion (10 min)

5:23 pm  
Lectern 2

**65**  
**INTRACRANIAL VOLUME MEASUREMENT: A SYSTEMATIC REVIEW OF GLOBALLY USED TECHNIQUES AND A DIRECT COMPARISON OF MANUAL, SEMI-AUTOMATIC AND FULLY AUTOMATIC TECHNIQUES**

Presenter: Will Breakey, M.D. (6 Min)

Authors: Will Breakey, P.G.M Knoops, A. Borghi, D.J Dunaway, S. Schievano

Institution: Great Ormond Street and UCL Institute of Child Health

5:29 pm  
Lectern 1

**66**  
**CHIARI MALFORMATION MANAGEMENT IN BILAMBDROID AND SAGITTAL SYNOSTOSIS**

Presenter: Giovanna Paternoster, M.D. (6 Min)

Authors: Giovanna Paternoster, Syril James, Dominique Renier, Federico di Rocco,  
Michel Zerah, Eric Arnaud

Institution: Hospital Necker CF Unit

5:35 pm  
Lectern 2

**67**

**SYNDROMIC CRANIOSYNOSTOSIS AND LATE APPEARING SYRINGOMYELIA**

Presenter: Syril James, M.D. (3 Min)

Authors: Syril James, Giovanna Paternoster, Stéphanie Puget, Michel Zerah, Eric Arnaud

Institution: Hospital Necker Craniofacial Unit

5:38 pm  
Lectern 1

**68**

**AUTOMATED OBJECTIVE VISUAL OUTCOMES ANALYSIS**

Presenter: Elizabeth Zellner, M.D. (3 Min)

Authors: Darren Smith, John Phillips, David Khechoyan, Jessica Ching, Elizabeth Zellner

Institution: The Hospital for Sick Children

5:41 pm  
Lectern 2

**69**

**SURGERY NAVIGATION IN TREATING CONGENITAL MIDFACIAL DYSPLASIA OF FACIAL CLEFT PATIENTS**

Presenter: Jie Yuan, M.D. (3 Min)

Authors: Jie Yuan, Min Wei, Dong Li, Liang Xu, Zheyuan Yu

Institution: Department of plastic and reconstructive surgery, Shanghai 9th people hospital

5:44 pm  
Lectern 1

**70**

**AN OUTCOME REVIEW OF 225 PATIENTS WITH METOPIC SYNOSTOSIS TREATED AT BIRMINGHAM CHILDREN'S HOSPITAL OVER 15 YEARS**

Presenter: Neil Opie, M.D. (3 Min)

Authors: Neil Opie, MS Dover, H Nishikawa, M Evans, N White, D Rodrigues, M Sharp

Institution: Birmingham Children Hospital

5:47 pm

Discussion (13 min)

07:00 – 09:00 pm

**Opening Reception**

**The Sunset Terrace at the Grand Fiesta Americana Coral Beach**

## ROOM A

08:00 – 09:00 am

### **CONCURRENT SESSION 4 Syndromic Craniosynostosis**

Moderators: Nivaldo Alonso, M.D., Amanda Gosman, M.D.

8:00 am  
Lectern 1

#### **71 CORRECTION OF RESIDUAL FACIAL DEFORMITY IN SYNDROMIC CRANIOSYNOSTOSIS AFTER MIDFACIAL ADVANCEMENT**

Presenter: David Dunaway M.D. (6 min)

Authors: David Dunaway M.D, Daljit Gill, Owase Jeelani, Jonathan Britto, Robert Evans,  
Timothy Lloyd

Institution: Royal Children's Hospital of Melbourne

8:06 am  
Lectern 2

#### **72 INTRODUCTION OF THE ALDER HEY SURGICAL SITE INFECTION BUNDLE; REDUCING POST-OPERATIVE CRANIOFACIAL INFECTION RATES**

Presenter: Jane England, M.D. (6 min)

Authors: Jane England M.D., Jonathan R Ellenbogen, Dawn Hennigan, Benedetta Pettorini,  
Christopher Parks

Institution: Alder Hey Childrens NHS Foundation Trust

8:12 am  
Lectern 1

#### **73 COMPARATIVE COST ANALYSIS OF TEMPORAL HOLLOWING CORRECTION FOLLOWING NEUROSURGICAL PROCEDURES**

Presenter: Gabriel F. Santiago, M.D. (3 min)

Authors: Gabriel F. Santiago, M.D., Anthony Asemota, M.D., M.P.H., Shuting Zhong, M.D.,  
Chad R. Gordon, D.O.

Institution: Johns Hopkins University Department of Plastic and Reconstructive Surgery

8:15 am  
Lectern 2

#### **74 INCIDENCE OF SECONDARY MIDFACE ADVANCEMENT AT THE TIME OF SKELETAL MATURITY IN PATIENTS WITH A HISTORY OF EARLY LE FORT III DISTRACTION OSTEOGENESIS**

Presenter: Gerald J. Cho M.D. (3 min)

Authors: Gerald J. Cho M.D., Zachary M. Borab, Travis L. Gibson, Pradip R. Shetye,  
Barry H. Grayson, Roberto L. Flores, Joseph G. McCarthy

Institution: NYU Langone Medical Center

8:18 am  
Lectern 1

#### **75 CRANIOSYNOSTOSIS REPAIR: FACTORS EFFECTING COMPLICATIONS, READMISSION, AND REOPERATION**

Presenter: Renata Maricevich, M.D. (3 min)

Authors: Kevin Jubbal, Nikhil Agrawal, Larry Hollier, Jr, Dra. Renata Maricevich, M.D.

Institution: Loma Linda University

8:21 am

Discussion (10 min)

- 8:31 am  
Lectern 2
- 76**  
**ORTHODONTICS AND ORTHOGNATHIC SURGERY IN PATIENS WITH SYNDROMIC CRANIOSYNOSTOSIS**  
Presenter: Mariana Sabás M.D. (3 min)  
Authors: Mariana Sabás M.D., Emmanuela Nadal-Lopez, M.D.  
Institution: Sociedad Argentina de Ortodoncia. Buenos Aires. Argentina
- 8:34 am  
Lectern 1
- 77**  
**SKULL GROWTH IN UNOPERATED SYNDROMIX**  
Presenter: P.G.M Knoop, M.D. (3 min)  
Authors: Will Breakey, P.G.M Knoop, G. James, S. Schievano, D. Dunaway, N.u.O Jeelani M.D.  
Institution: Great Ormond Street and UCL Institute of Child Health
- 8:37 am  
Lectern 2
- 78**  
**ANALISIS OF SURGICAL CORRECTION OF CRANIOSYNOSTOSIS: FOA VS PVDO**  
Presenter: Xiongzheng Mu M.D. (3 min)  
Authors: Xiongzheng Mu M.D., Yingzhi Wu, Junyin Yang  
Institution: Huashan Hospital, Fudan University
- 8:40 am  
Lectern 1
- 79**  
**PATTERNS OF INTRACRANIAL PRESSURE IN CHILDREN WITH CRANIOSYNOSTOSIS UTILIZING OPTICAL COHERENCE TOMOGRAPHY**  
Presenter: Jordan Swanson M.D. (3 min)  
Authors: Jordan Swanson M.D., Wen Xu, Grant Liu, Philip Storm, Scott Bartlett, Jesse Taylor  
Institution: University of Pennsylvania
- 8:43 am  
Lectern 2
- 80**  
**THE LONG-TERM MORPHOMETRIC OUTCOMES IN PATIENTS WITH UNTREATED CRANIOSYNOSTOSIS**  
Presenter: John Phillips M.D. (6 min)  
Authors: John Phillips M.D., Christopher Forrest, Elizabeth Zellner, David Khechoyan, Darren Smith  
Institution: The Hospital for Sick Children
- 8:49 am
- Discussion (11 min)

### ROOM B

08:00 – 09:00 am

#### CONCURRENT SESSION 4

##### Cranioplasty

Moderators: Joseph Gruss, M.D., Vera Lucia Cardim, M.D.

8:00 am  
Lectern 1

**81**

##### **ALLOPLASTIC CRANIOPLASTY WITH POROUS POLYETHYLENE IN CHILDREN: OUTCOMES AND CRANIAL GROWTH**

Presenter: Joseph E. Losee, MD (3 min)

Authors: Liliana Camison, Lucas A. Dvoracek, Ilona Brueckmann M.D., Jesse A. Goldstein, Mandeep S. Tamber, Joseph E. Losee

Institution: University of Pittsburgh Medical Center

8:03 am  
Lectern 2

**82**

##### **ON THE MECHANICAL BEHAVIOUR OF PEEK AND HA CRANIAL IMPLANTS UNDER IMPACT LOADING**

Presenter: Jayaratnam Jayamohan M.D. (3 min)

Authors: Jayaratnam Jayamohan M.D., D. Garcia-Gonzalez, A. Jérusalem, S.N. Sotiropoulos, A. Arias, B. Siviour, J. Cook, S.H. Yoon

Institution: Oxford Craniofacial Unit

8:06 am  
Lectern 1

**83**

##### **RECONSTRUCTION OF SECONDARY SKULL DEFECTS WITH SPLIT CALVARIAL BONE GRAFTS IN A HIGH RISK POPULATION**

Presenter: Russell Frautschi M.D. (3 min)

Authors: Russell Frautschi M.D., Brianna Halasa, Grzegorz Kwiecien, Antonio Rampazzo, James E. Zins, Bahar Bassiri Gharb

Institution: Cleveland Clinic

8:09 am  
Lectern 2

**84**

##### **USE OF TITANIUM MESH FOR CRANIOPLASTY -REPORT ON 100 CASES**

Presenter: Anil Madaree, M.D. (6 min)

Authors: Anil Madaree, M.D., T Pillay

Institution: Nelson R Mandela School of Medicine, University of Kwazulu Natal, Durban, South Africa

8:15 am  
Lectern 1

**85**

##### **SYNDROME OF THE TREPHINED: FUNCTIONAL IMPROVEMENT AFTER RECONSTRUCTION OF LARGE CRANIAL VAULT DEFECTS**

Presenter: James P Bradley, M.D. (6 min)

Authors: James P Bradley, M.D., Matthew Hagan, M.D., Joe Tarr, PhD, Justine Lee, M.D., PhD

Institution: Temple University

8:21 am  
Lectern 2

**86**

##### **LONG-TERM OUTCOMES OF DEMINERALIZED BONE MATRIX AND RESORBABLE MESH BILAMINATE CRANIOPLASTY IN LARGE PEDIATRIC CALVARIAL DEFECTS IN THE SETTING OF SCARRED DURA**

Presenter: Jonathan Y Lee, M.D. (6 min)

Authors: Jonathan Y Lee, Lucas Dvoracek, Joseph E Losee, Jesse A Goldstein

Institution: University of Pittsburgh Medical Center

- 8:27 am Discussion (8 min)
- 8:35 am  
Lectern 1 **87**  
**CEPHALOMETRIC PREDICTORS OF CLINICAL SEVERITY IN TREACHER COLLINS SYNDROME**  
Presenter: Roberto L. Flores, MD (6 min)  
Authors: Natalie M. Plana, Elcin Esenlik, DDS, PhD, Natalie M. Plana, BA,  
Barry H. Grayson, DDS, Joseph G. McCarthy, M.D., Roberto L. Flores, MD  
Institution: Hansjorg Wyss Department of Plastic Surgery
- 8:41 am  
Lectern 2 **88**  
**CRANIAL VAULT RECONSTRUCTION FOLLOWING DECOMPRESSIVE CRANIECTOMY; OPTIMIZING FUNCTIONAL AND AESTHETIC OUTCOMES USING A MULTIDISCIPLINARY APPROACH**  
Presenter: Micaela Uberti M.D. (6 min)  
Authors: Micaela Uberti, Glass, GE, Blythe, J, Homes, SB, Barber, J  
Institution: Royal London Hospital
- 8:47 am  
Lectern 1 **89**  
**PURPOSE: THE PURPOSE OF THIS STUDY WAS TO DETERMINE THE HOSPITAL COSTS ASSOCIATED WITH DIFFERENT TYPES OF CRANIOPLASTY**  
Presenter: Oleh Antonyshyn M.D. (6 min)  
Authors: Oleh Antonyshyn M.D., Adam Binhammer, Paul Binhammer  
Institution: Sunnybrook Health Sciences Centre
- 8:53 am Discussion (7 min)

**ROOM A**

09:00 – 09:30 am

**CONCURRENT SESSION 5**

**Hemifacial Microsomia**

Moderators: Roberto Flores, M.D., Hector Malagon, M.D.

9:00 am  
Lectern 1

**90**

**A VOLUMETRIC ANALYSIS OF THE COSTOCHONDRAL GRAFT IN HEMIFACIAL MICROSOMIA**

Presenter: Scott Bartlett, M.D. (6 min)

Authors: Scott Bartlett M.D., Netanja ter Maaten, Daniel Mazzaferro, Ari Wes, Andrew Bauder, Sanjay Naran, Jesse Taylor

Institution: Childrens Hospital of Philadelphia

9:06 am  
Lectern 2

**91**

**FEASIBILITY OF MAGNETIC ACTIVATION OF A MAXILLOFACIAL DISTRACTION OSTEOGENESIS, DESIGN OF A NEW DEVICE**

Presenter: Boisson Jean M.D. 6 min)

Authors: Boisson Jean, Strozyk Herve, Diner Patrick, Debelmas Alexandre, Picard Arnaud, Kadlub Natacha

Institution: ENSTA-ParisTech

9:12 am  
Lectern 1

**92**

**DISTRACTION OSTEOGENESIS IN MICROVASCULAR FREE FIBULA FLAP FOR HEMIFACIAL MICROSOMIA PATIENTS**

Presenter: Eric Santamaría, M.D. (6 min)

Authors: Eric Santamaría, M.D., Adriana Guerrero, Maria Soledad Rubio, Damian Palafox, Maria del Carmen Pamplona

Institution: Hospital Dr. Manuel Gea Gonzalez

9:18 am  
Lectern 2

**93**

**MODIFIED SIMULTANEOUS BIMAXILLARY DISTRACTION OSTEOGENESIS FOR CORRECTION OF FACIAL ASYMMETRY USING SEMI-BURIED MANDIBULAR DISTRACTORS. IN CHILDREN AND ADULTS, WITH LONG-TERM FOLLOW UP**

Presenter: Ahmed Medra M.D. (3 min)

Authors: Ahmed Medra M.D, Ahmed Mohamed Medra

Institution: Alexandria University, Faculty of Dentistry

9:21 am  
Lectern 1

**94**

**SPEECH AND LANGUAGE CONCERNS IN CRANIOFACIAL MICROSOMIA**

Presenter: Nicole Kurnik, M.D. (3 min)

Authors: Davinder Singh, M.D., Nicole Kurnik, M.D., Kelly Cordero, PHD, CCC-SLP

Institution: Department of Plastic Surgery, Phoenix Childrens Hospital, Barrow Cleft and Craniofacial Center

9:24 am  
Lectern 2

**95**

**CRANIAL BASE MEASUREMENT IN HEMIFACIAL MICROSOMIA**

Presenter: Jie Yuan, M.D. (3 min)

Authors: Xianxian Yang M.D, Xianxian Yang, Xiaojun Chen, Yan Zhang, Gang Chai

Institution: Department of Plastic and Reconstructive Surgery, Shanghai Ninth Peoples Hospital

9:27 am Discussion (10 min)

### ROOM B

09:00 – 09:30 am

#### CONCURRENT SESSION 5

##### Orthognathic Surgery

Moderators: Derec M. Steinbacher, M.D., John Phillips, M.D.

9:00 am  
Lectern 2

**96**

##### **3D EVALUATION OF MAXILLA AND FACE AFTER 2 AND 3 SEGMENTS SURGICALLY ASSISTED MAXILLARY EXPANSION**

Presenter: Max Domingues Pereira M.D. (3 min)

Authors: Max Domingues Pereira M.D., Gabriela Prado, Alexandre Koga, Fabiane Furtado

Institution: Universidade Federal de São Paulo- Escola Paulista de Medicina - UNIFESP- EPM

9:03 am  
Lectern 1

**97**

##### **CONFORMITY OF THE ACTUAL TO PLANNED RESULT IN ORTHOGNATHIC SURGERY**

Presenter: Sarika Madari M.D. (3 min)

Authors: Sarika Madari M.D., Rajendra Sawh-Martinez, Derec Steinbacher

Institution: Yale University

9:06 am  
Lectern 2

**98**

##### **VINTAGE ORTHOGNATHIC SURGERY: NO FERWELL FOR MAJOR OSTEOTOMIES**

Presenter: Jacobo Felemovicus M.D. (6 min)

Authors: Jacobo Felemovicus M.D.

Institution: Hospital General Dr. Manuel Gea Gonzalez

9:12 am  
Lectern 1

**99**

##### **AN INTEGRATED SURGICAL PROTOCOL FOR ADULT PATIENTS WITH HEMIFACIAL MICROSOMIA: METHODS AND OUTCOME**

Presenter: Lun-Jou Lo, M.D. (6 min)

Authors: Lun-Jou Lo, M.D., Kazuaki Yamaguchi, Daniel Lonic, Ellen WC Ko, Lun-Jou Lo

Institution: Chang Gung Memorial Hospital

9:18 am  
Lectern 2

**100**

##### **TRACHEAL SLEEVE CARTILAGE -- VARIATIONS IN PRESENTATION AND CHALLENGES IN MANAGEMENT**

Presenter: Scott Rickert (3 min)

Authors: Scott Rickert

Institution: New York University Langone Medical Center

9:21 am

Discussion (9 min)

09:30 – 10:00 am

Coffee Break: Visit to the Exhibit and E-Posters Presentations



XVII Congress of the  
International Society of  
Craniofacial Surgery (ISCFS)

## Scientific Program

Thursday, October 26<sup>th</sup>, 2017

Grand Coral Ballroom

10:00 – 10:30 am      **General Session 2**  
**Fernando Ortiz Monasterio Lecture**

10:00- 10:10 am      **Introduction:**  
Pablo Ortiz Monasterio Prieto, Photographer

10:10 – 10:35 am      **Appearance in History, Art, Plastic Surgery, and Beyond**  
Linton A. Whitaker, M.D.

10:35 – 10:50 am      **Time to prepare for Chichen Itza Tour**

10:50 – 11:00 am      **Meet at the Lobby of the Hotel Fiesta Americana Coral Beach**

11:00 am              **Buses depart to Chichen Itza**

### ROOM A

07:00 – 08:30 am **Business Meeting**

08:30 – 09:30 am **CONCURRENT SESSION 6  
Posterior Skull Expansion**  
Moderators: Irene Mathijssen, M.D., Juan Carlos Rodriguez, M.D.

- 8:30 am  
Lectern 1
- 101**  
**A NEW TECHNIQUE FOR POSTERIOR DISTRACTION IN CRANIOSYNOSTOSIS:  
THE DOUBLE DOOR TECHNIQUE**  
Presenter: Yoshiaki Sakamoto M.D. (3 min)  
Authors: Yoshiaki Sakamoto M.D., Tomoru Miwa, Kazunari Yoshida, Kazuo Kishi  
Institution: Keio University School of Medicine
- 8:33 am  
Lectern 2
- 102**  
**ANALYSIS OF 20 CONSECUTIVE CASES OF POSTERIOR CRANIAL VAULT DISTRACTION**  
Presenter: Yuzo Komuro M.D. (3 min)  
Autor: Yuzo Komuro M.D., Daiki Senda, Kazuaki Shimoji, Masakazu Miyajima, Hajime Arai  
Institution: Department of Plastic Surgery Teikyo University
- 8:36 am  
Lectern 1
- 103**  
**EXPERIENCE OF POSTERIOR DISTRACTION IN 117 CASES: ANALYSIS OF THE  
RESULTS AND PROSPECTS FOR THE FUTURE OF THE METHOD**  
Presenter: Leonid Satanin M.D. (3 min)  
Authors: Leonid Satanin M.D., Niina Salokorpi, Ivan Teterin, Alexander Ivanov,  
Vitaly Roginsky, Willy Serlo  
Institution: Moscow Burdenko Neurosurgery Institute, Russia
- 8:39 am  
Lectern 2
- 104**  
**THE OXFORD EXPERIENCE OF POSTERIOR CRANIAL VAULT DISTRACTION; EVIDENCE  
FOR A REDUCED CONSOLIDATION PERIOD**  
Presenter: David Johnson M.D. (6 min)  
Authors: David Johnson M.D., Greg Thomas, Shailendra Magdum, Jay Jayamohan, Jo Byren,  
Steven Wall  
Institution: Oxford Craniofacial Unit
- 8:45 am  
Lectern 1
- 105**  
**POSTERIOR VAULT DISTRACTION IN MULTI-SUTURE SYNOSTOSIS: MORPHOMETRIC  
ANALYSIS AND OUTCOMES**  
Presenter: Christopher R. Forrest, MD (6 min)  
Authors: Christopher R. Forrest, MD, Jessica A. Ching, MD, April Clausen, P. Eng  
Institution: The Hospital for Sick Children, Toronto
- 8:51 am
- Discussion (10 min)

9:01 am  
Lectern 2

**106**  
**CHANGES IN INTRACRANIAL VOLUME WITH POSTERIOR VAULT DISTRACTION  
FRONTAL ORBITAL ADVANCEMENT**

Presenter: Daiki Senda M.D. (3 min)

Authors: Daiki Senda M.D., Azusa Shimizu, Doruk Orgun, Takaoki Kimura, Kazuaki Shimoji,  
Masakazu Miyajima, Hajime Arai, Yuzo Komuro

Institution: Department of Plastic and Reconstructive surgery, Juntendo University

9:04 am  
Lectern 1

**107**  
**FORCE MEASUREMENTS DURING POSTERIOR CALVARIAL VAULT  
OSTEODISTRACTION: A NOVEL MEASUREMENT METHOD**

Presenter: J. Leikola M.D. (3 min)

Authors: Mikko Savolainen, Antti Ritvanen, Daniel Nowinski, Daniel Saiepour, Mervi  
Paulasto-Kröckel, J.Hukki, E.Tukiainen, J.Leikola M.D.

Institution: Department of Plastic Surgery, Helsinki University Hospital

9:07 am  
Lectern 2

**108**  
**A CRANIOMETRIC ANALYSIS OF POSTERIOR VAULT DISTRACTION AND ITS EFFECTS  
ON FRONTAL CRANIAL MORPHOLOGY**

Presenter: Scott Bartlett M.D. (3 min)

Authors: Netanja ter Maaten, Dan Mazzaferro, Ari Wes, Sanjay Naran, Scott Bartlett,  
Jesse Taylor

Institution: Childrens Hospital of Philadelphia

9:10 am  
Lectern 1

**109**  
**POSTERIOR VAULT DISTRACTION OSTEOGENESIS AND NEUROLOGICAL OUTCOMES  
IN SYNDROMIC CRANIOSYNOSTOSIS**

Presenter: James Thomas Paliga M.D. (6 min)

Authors: James Thomas Paliga M.D., James SunChildrens, Ari M. Wes, Sanjay Naran,  
Scott P Bartlett, Jesse A Taylor

Institution: Children's Hospital of Philadelphia

9:16 am  
Lectern 2

**110**  
**A 2 CENTRE EXPERIENCE OF 100 CONSECUTIVE POSTERIOR VAULT DISTACTIONS:  
PROCEDURES, OUTCOMES AND COMPLICATIONS**

Presenter: Michael Stephen Dover M.D. (6 min)

Authors: Michael Stephen Dover M.D., David Johnson Steven Wall,  
Nicholas White Martin Evans, Greg Thomas, Desiderio Rodrigues,  
Sheilendra Magdum, Guirish Solanki, Jay Jayamohan, Hiroshi Nishikawa

Institution: Birmingham Children's Hospital, UK

9:22 am

Discussion (8 min)

**ROOM B**

08:30 – 09:00 am

**CONCURRENT SESSION 6**

**Pierre Robin Syndrome**

Moderators : Jeffrey Marcus, M.D., Marcus Collares, M.D.

8:30 am  
Lectern 1

**111**

**NEONATAL AND INFANT MANDIBULAR DISTRACTION OSTEOGENESIS: CAN WE PREDICT THE OUTCOME**

Presenter: Artur Fahradyan, M.D. (3 min)

Authors: Artur Fahradyan, M.D., Brady Colin, M.D., Michaela Tsuha, BS, Mark M. Urata, Jeffrey A. Hammoudeh

Institution: Childrens Hospital Los Angeles

8:33 am  
Lectern 2

**112**

**AN ALGORITHM FOR AIRWAY MANAGEMENT IN PIERRE ROBIN SEQUENCE**

Presenter: Chad A Purnell M.D. (3 min)

Authors: Chad A Purnell M.D., Katherine E Hicks, Kathleen R Billings, John M Carter, Bharat Bhushan, Arun K Gosain, Dana M Thompson, Jeffrey C Rastatter

Institution: Lurie Childrens Hospital of Northwestern Feinberg School of Medicine

8:36 am  
Lectern 1

**113**

**INCREASED PEDIATRIC WEIGHT GAIN FOLLOWING MANDIBULAR DISTRACTION OSTEOGENESIS**

Presenter: Cyril S Gary M.D. (3 min)

Authors: Cyril S Gary M.D., Sharon Marczewski, Patricia M Vitagliano, Derek M Steinbacher

Institution: Yale School of Medicine

8:39 am  
Lectern 2

**114**

**EXTREME MICROGNATHIA IN SYNDROMIC PATIENTS: SEQUENTIAL MANDIBULAR DISTRACTION DURING GROWTH TO FINAL SKELETAL CORRECTION**

Presenter: Andrew Heggie M.D. (6 min)

Authors: Andrew Heggie M.D., Anthony Holmes

Institution: Royal Children's Hospital of Melbourne

8:45 am  
Lectern 1

**115**

**PATHOGENESIS OF CLEFT PALATE IN ROBIN SEQUENCE: OBSERVATIONS FROM PRENATAL MRI**

Presenter: Cory M. Resnick, DMD, MD, FACS (6 min)

Authors: Cory M. Resnick, DMD, MD, FACS, Tessa D. Kooiman, BS, Carly E. Calabrese, MPH, Judy A. Estroff, MD, Maarten J. Koudstaal, DMD, MD, Bonnie L. Padwa, DMD, MD, FACS

Institution: Boston Children's Hospital

8:51 am

Discussion (9 min)

### ROOM A

09:30 – 10:30 am

#### CONCURRENT SESSION 7

##### Research and Genetics

Moderators: Joseph Losee, M.D., Carlos Raul Barcelo, M.D.

9:30 am  
Lectern 1

**116**

##### **NEURAL RESPONSE TO LANGUAGE IN CRANIOSYNOSTOSIS: AN ELECTROPHYSIOLOGIC STUDY**

Presenter: Alexander Sun M.D. (6 min)

Authors: Alexander Sun M.D., Max Rolison, Carolyn Chuang, Derek Steinbacher, John Persing,  
James McPartland

Institution: Yale School of Medicine

9:36 am  
Lectern 2

**117**

##### **ELUCIDATION OF GENETIC DISORDERS IN UNCLASSIFIED RARE CRANIOFACIAL HYPEROSTOSES: TWO CASES OF SOMATIC MUTATION MOSAICISM**

Presenter: Yoshitaka Kubota M.D. (3 min)

Authors: Yoshitaka Kubota M.D., Yoshihisa Yamaji, Yoshitaro Sasahara, Shinsuke Akita,  
Nobuyuki Mitsukawa

Institution: Chiba University

9:39 am  
Lectern 1

**118**

##### **IDENTIFICATION OF SEVERAL NOVEL CRANIOSYNOSTOSIS GENES BY NEXT GENERATION SEQUENCING**

Presenter: Jacqueline A.C. Goos (3min)

Authors: Jacqueline A.C. Goos, Sigrid M.A. Swagemakers, Ans M.W. van den Ouweland,  
Marieke F. van Dooren, Andrew O.M. Wilkie, Irene M.J. Mathijssen

Institution: Erasmus MC, University Medical Center

9:42 am  
Lectern 2

**119**

##### **VEGF DOES NOT IMPROVE BMP-2-MEDIATED BONE REGENERATION IN COMPLICATED CALVARIAL DEFECTS IN RABBITS**

Presenter: Liliana Camison M.D. (3 min)

Authors: Liliana Camison M.D., Michael R. Bykowski, Jack Brooker, Phil Campbell,  
Gregory M. Cooper, Joseph E. Losee

Institution: University of Pittsburgh Medical Center

9:45 am  
Lectern 1

**120**

##### **ELEVATED RETINOID SIGNALING AS THE GENETIC BASIS FOR AN OAVS-LIKE PRESENTATION IN MICE**

Presenter: Timothy C Cox, M.D. (3 min)

Authors: Timothy C Cox, M.D., Esra D Camci

Institution: University of Washington

9:48 am  
Lectern 2

**121**  
**DIPYRIDAMOLE ENHANCES BONE REGENERATION IN 3D PRINTED BIOACTIVE CERAMIC SCAFFOLDS**

Presenter: Christopher D Lopez, BA (3 min)  
Authors: Christopher D Lopez, BA, Lukasz Witek, MSci, PhD, Jonathan M Bekisz, BA, J. Rodrigo Diaz-Siso, MD, Eduardo D. Rodriguez, MD DDS, Paulo G. Coelho, DDS PhD  
Institution: Icahn School of Medicine at Mount Sinai

9:51 am  
Lectern 1

**122**  
**MODELLING BONE FORMATION AT THE CRANIAL SUTURES IN WILD TYPE MOUSE**

Presenter: Mehran Moazen M.D. (6 min)  
Authors: Arsalan, Joseph Libby, Christian Babbs, Erwin Pauws, Michael J. Fagan, Mehran Moazen  
Institution: University College London, UK

9:57 am

Discussion (9 min)

10:06 am  
Lectern 2

**123**  
**CRANIOFACIAL AND LONG BONE ANOMALIES IN STAT3 MUTATIONS**

Presenter: David Boutboul (3 min )  
Authors: Roman Hossein Khonsari, David Boutboul, Nabil Kaci, Kimberley Ching, John Manis, Laurence Legeai-Mallet  
Institution: Hôpital Universitaire Necker - Enfants Malades, Paris, France

10:09 am  
Lectern 1

**124**  
**ALTERED BRAIN FUNCTIONAL CONNECTIVITY VARIES BY FORM OF CRANIOSYNOSTOSIS**

Presenter: Alexander Sun M.D. (6 min)  
Authors: Alexander Sun M.D, Jeffrey Eilbott, Carolyn Chuang, Derek Steinbache, Kevin Pelphrey, John Persing  
Institution: Yale School of Medicine

10:15 am  
Lectern 2

**125**  
**CONNECTIVE TISSUE GROWTH FACTOR CTGF/CCN2 IS ESSENTIAL FOR SECONDARY PALATOGENESIS**

Presenter: Joe Tarr, PhD (3 min)  
Authors: James P Bradley, MD, Joe Tarr, PhD, Steve Popoff, MD, PhD, Alex Lambi, MD PhD  
Institution: Temple University

10:18 am  
Lectern 1

**126**  
**PEPTIDE AMPHIPHILE NANOFIBERS AMPLIFY EFFECTS OF BMP-2 ON CRANIOFACIAL BONE REPAIR**

Presenter: Reena Bakshi M.D. (3 min)  
Authors: Reena Bakshi M.D., Akishige Hokugo, Kameron Rezzadeh, Mark McClendon, Samuel Stupp, Reza Jarrahy  
Institution: Regenerative Bioengineering and Repair (REBAR) Laboratory, Division of the Plastic and Reconstructive Surgery, Department of Surgery, David Geffen School of Medicine at UCLA

10:21 am  
Lectern 2

**127**  
**COMPARISON OF FACIAL PHENOTYPES BETWEEN NON-SYNDROMIC INFILTRATING LIPOMATOSIS AND CLOVES SYNDROME**  
Presenter: Reid A Maclellan M.D. (3min)  
Authors: Usha Beijnen, Ahmad I Alomari, Arin K Greene, John B Mulliken, Reid A Maclellan M.D.  
Institution: Boston Children's Hospital/ Harvard Medical School

10:24 am Discussion (6 min)

### ROOM B

09:00 – 10:00 am

**CONCURRENT SESSION 7**  
**Research and Genetics**  
Moderators: Steven Buchman, M.D., Marcia Perez Dosal, M.D.

9:00 am  
Lectern 1

**128**  
**EXOME SEQUENCING REVEALS NOVEL GENETIC SUBTYPES OF NON-SYNDROMIC MIDLINE CRANIOSYNOSTOSIS**  
Presenter: Andrew T. Timberlake M.D. (6 min)  
Authors: Andrew T. Timberlake M.D., Charuta Furey, Derek M. Steinbacher, Michael L. DiLuna, Dawid Larysz, John A. Persing, Richard P. Lifton  
Institution: Yale University

9:06 am  
Lectern 2

**129**  
**3D PRINTED BIOACTIVE CERAMIC SCAFFOLDS DEMONSTRATE INTRINSIC OSTEOGENIC PROPERTIES IN AN UNDISTURBED OSSEOUS ENVIRONMENT**  
Presenter: Christopher D. Lopez, BA (6 min)  
Authors: Christopher D. Lopez BA, Jonathan M. Bekisz BA, Lukasz Witek, MSci PhD, Leyla Y. Cavdar, Fady G. Gendy, Paulo G. Coelho, DDS PhD  
Institution: Icahn School of Medicine at Mount Sinai, New York NY

9:12 am  
Lectern 1

**130**  
**SOMATIC PIK3CA MUTATIONS ARE PRESENT IN MULTIPLE TISSUES OF FACIAL INFILTRATION LIPOMATOSIS**  
Presenter: Arin K. Greene, MD, MMSc (6 min)  
Authors: Javier A. Couto, Dennis J. Konczyk, BS, Matthew P. Vivero, BA, Harry P.W. Kozakewich, M.D., Joseph Upton, M.D., Xi Fu, M.D., Bonnie L. Padwa, DMD, M.D., John B. Mulliken, M.D., Matthew L., Warman, MD, Arin K. Greene, MD, MMSc  
Institution: Department of Plastic and Oral Surgery, Boston Children's Hospital, Harvard Medical School

9:18 am  
Lectern 2

**131**  
**NON-MINERALIZED AND MINERALIZED COLLAGEN SCAFFOLDS INDUCE DIFFERENTIAL OSTEOGENIC SIGNALING PATHWAYS IN HUMAN MESENCHYMAL STEM CELLS**

Presenter: Justine Lee M.D. (6 min)  
Authors: Justine Lee, Qi Zhou, Xiaoyan Ren, Jessica Chang, David Bischoff, Daniel W. Weisgerber, Dean T. Yamaguchi, Timothy A. Miller, Brendan A.C. Harley  
Institution: University of California Los Angeles

9:24 am  
Lectern 1

**132**  
**WHOLE GENOME SEQUENCING FOR IDENTIFICATION OF MISSENCE MUTATION IN MAML3 INVOLVED IN HYPERTELORISM PATIENTS-A SERIES STUDY IN 5 MONOZYGOTIC TWINS**

Presenter: Jie Yuan M.D. (3 min)  
Authors: Jie Yuan, Min Wei, Don Li, Shanshan Bai, Zheyuan Yu, Liang X  
Institution: Craniofacial Center, Department of Plastic and Reconstructive Surgery, Shanghai 9th People Hospital

9:27 am

Discussion (6 min)

### TUMORS AND CFN DYSPLASIA

9:33 am  
Lectern 2

**133**  
**CRANIOFACIAL FIBROUS DYSPLASIA: A MULTI-CENTRE STUDY OF THE BEHAVIOUR OF LESIONS AND THEIR TREATMENT**

Presenter: Khalid El Ghouli M.D. (3 min)  
Authors: Khalid El Ghouli M.D., Asher, C., Jivraj, B., Dunaway, D., Koudstaal, M.J., Ong, J.  
Institution: Erasmus Medical Centre

9:36 am  
Lectern 1

**134**  
**ABLATIVE PROCEDURES OF THE HEAD AND NECK OFTEN RESULT IN SUBSTANTIAL DEFECTS THAT REQUIRE LARGE VOLUME TISSUE TRANSFER FOR RESTORATION OF FORM AND FUNCTION**

Presenter: Mark W. Stalder M.D. (3 min)  
Authors: Mark W. Stalder M.D, Matthew Bartow, Austin Pharo, Charles Patterson, Rizwan Aslam, Gerhard S. Munding, Hugo St. Hilaire  
Institution: Division of Plastic and Reconstructive Surgery, Louisiana State University Health Sciences Center

9:39 am  
Lectern 2

**135**  
**ENDOSCOPIC ENDONASAL SKULL BASE SURGERY IN PEDIATRIC PATIENTS AND IMPACT ON MIDFACE GROWTH**

Presenter: Lindsay A Schuster M.D. (3 min)  
Authors: Lindsay A Schuster M.D, Wendy Chen, Shih-Dun Stanley Liu, Yue Fang Chang, Barton Branstetter, Paul Gardner  
Institution: Childrens Hospital of Pittsburgh

9:42 am Lectern 1	<p><b>136</b>  <b>SURGICAL MANAGEMENT OF A CONGENITAL CRANIOFACIAL TERATOMA VIA EXIT PROCEDURE AND EN BLOC RESECTION</b>            Presenter: Tuan A. Truong, MD (6 min)            Authors: Tuan A. Truong, MD, Sarah A. Frommer, MD/PhD, Steven L. Henry, MD, Patrick K. Kelley, MD            Institution: Baylor College of Medicine</p>
9:48 am Lectern 2	<p><b>137</b>  <b>SUBCRANIOTOMY WITH NAVIGATION FOR OPTIC NERVE DECOMPRESSION IN FRONTOORBITAL FIBROUS DYSPLASIA</b>            Presenter: Junyi Yang M.D. (3 min)            Author: Junyi Yang M.D.            Institution: Huashan Hospital, Fudan University</p>
9:51 am	Discussion (9 min)
10:00 - 10:30	Coffee Break: Visit to the Exhibit and E-posters presentations

### ROOM A

10:30 am – 01:00 pm **GENERAL SESSION 3**

10:30 a 11:00

**PAUL TESSIER LECTURE**

10:30- 10:35

**Introduction:**  
Bryant Toth, M.D.

10:35 – 11:00

**Band of Brothers**  
Kenneth Salyer, M.D.

11:00 – 12:00 pm

**PANEL DISCUSSION 4**  
**Facial Transplants of Composite Tissues: The True**  
 Moderator: Joseph G. Mc Carthy, M.D.  
 Panelist: Eric Santamaría, M.D., Eduardo Rodríguez, M.D.

12:00 – 01:00 pm

**PANEL DISCUSSION 5**  
**Treacher Collins Syndrome: Update**  
 Moderator: Scott Bartlett, M.D.  
 Panelist: Richard Hopper, M.D., Fernando Molina, M.D., John Phillips, M.D.

01:00 – 02:00 pm

Lunch

## ROOM A

02:00 – 03:00 pm

### CONCURRENT SESSION 8

#### Generalities and miscellaneous

Moderators: James Bradley, M.D., Akira Yamada, M.D.

2:00 pm  
Lectern 1

**138**

#### **WORK-RELATED PHYSICAL DISCOMFORT IN ASCFS AND ASMS MEMBERS: A SURVEY**

Presenter: Ashley L. Howarth, MD (3 min)

Authors: Ashley L. Howarth, MD, Davinder J. Singh, MD, Susan Hallbeck, PhD,  
Valerie Lemaine, MD, Shelley S. Noland, MD

Institution: Mayo Clinic Arizona

2:03 pm  
Lectern 2

**139**

#### **QUALITY OF LIFE IN ADULTS WITH NON-SYNDROMIC CRANIOSYNOSTOSIS**

Presenter: Daniel Mazzaferro M.D. (3 min)

Authors: Daniel Mazzaferro M.D, Ari Wes, Sanjay Naran, Scott Bartlett, Jesse Taylor

Institution: The Childrens Hospital of Philadelphia

2:06 pm  
Lectern 1

**140**

#### **TOTAL HUMAN EYE ALLOTRANSPLANTATION: PROTOCOL OPTIMIZATION OF IMAGING MODALITIES IN A NON-HUMAN PRIMATE MODEL**

Presenter: Edward H Davidson MA (Cantab) MBBS (3 min)

Authors: Edward H Davidson MA (Cantab) MBBS, Jonathan Carney PhD, Brian Lopresti PhD,  
Maxine Miller M.D., Kia M Washington MD

Institution: Montefiore Medical Center/Albert Einstein College of Medicine

2:09 pm  
Lectern 2

**141**

#### **CASE REPORT AND TEN-YEAR FOLLOW-UP: UNSUCCESSFUL ATTEMPT AT STAGED SURGICAL SEPARATION OF CRANIOPAGUS TWINS AFTER VENOUS SINUS COIL EMBOLIZATION**

Presenter: Elbert E Vaca, MD (3 min)

Authors: Elbert E Vaca, MD, Donald J. Harvey, MD, Chad A Purnell, MD, Arun K Gosain, MD

Institution: Division of Plastic & Reconstructive Surgery, Lurie Children's Hospital, Chicago, IL

2:12 pm  
Lectern 1

**142**

#### **ETHNICITY AND CRANIOSYNOSTOSIS: IS THERE A CONNECTION?**

Presenter: Gina Sacks (3 min)

Authors: Gina Sacks, Albert Oh, Amir Dorofshar, Christian Vercler, Steven Buchman,  
Kamlesh Patel

Institution: University of Michigan

2:15 pm  
Lectern 2

**143**

#### **INCREASED TOTAL RETINAL THICKNESS; A PRECURSOR FOR INTRACRANIAL HYPERTENSION?**

Presenter: S.D.C. van de Beeten M.D. (3 min)

Authors: S.D.C. van de Beeten M.D., S.E. Loudon, I.M.J. Mathijssen, M.L.C. van Veelen

Institution: Erasmus MC Rotterdam

- 2:18 pm Discussion (9 min)
- 2:27 pm  
Lectern 1
- 144**  
**FIRST-IN-HUMAN INTEGRATION OF NEUROMODULATION DEVICE WITHIN COMPUTER-DESIGNED CUSTOM CRANIAL IMPLANT**  
Presenter: Chad R. Gordon, D.O. (3 min)  
Authors: Chad R. Gordon, D.O., Gabriel F. Santiago, M.D., Judy Huang, M.D., Gregory K Bergey, M.D., Mehran Armand, Ph.D., Henry Brem, M.D., William S. Anderson, M.A., M.D., Ph.D.  
Institution: Johns Hopkins University Department of Plastic and Reconstructive Surgery
- 2:30 pm  
Lectern 2
- 145**  
**ANALYSIS OF FOLLICLE-STIMULATING HORMONE RECEPTOR EXPRESSION IN INFANTILE HEMANGIOMA**  
Presenter: Arin K Greene MD, MMSc (3 min)  
Authors: Reid Maclellan MD, MMSc, Fu Xi MD, Javier A Couto MD, Lan Huang PhD, Joyce Bischoff PhD, Arin K Greene MD, MMSc  
Institution: Boston Childrens Hospital / Harvard Medical School
- 2:33 pm  
Lectern 1
- 146**  
**A NEW CLASSIFICATION OF PARRY-ROMBERG SYNDROME**  
Presenter: Reena Bakshi M.D. (3 min)  
Authors: Reena Bakshi M.D., Brad Gandolfi, Kameron Rezzadeh, Henry K. Kawamoto, Reza Jarrahy  
Institution: Department of Plastic Surgery, University of California, Los Angeles
- 2:36 pm  
Lectern 2
- 147**  
**CLEFT WIDTH RATIO AND PALATAL LENGTH: A SIMPLE, PROGNOSTIC SEVERITY SCALE FOR CLEFT PALATE**  
Presenter: Meghan McCullough M.D. (3 min)  
Authors: William P Magee, Caroline Yao, MS, MD, Meghan McCullough, MD, Jordan Swanson, MD  
Institution: University of Southern California
- 2:39 pm  
Lectern 1
- 148**  
**PROLIFERATIVE CAPACITY OF HUMAN CHONDROCYTES IN 3D BIOPRINTED CARTILAGE IN VIVO**  
Presenter: Lars Kölby M.D. (6 min)  
Authors: Lars Kölby M.D., Peter Apelgren, Matteo Amoroso, Anders Lindahl, Camilla Brantsing, Paul Gatenholm  
Institution: Institute of Clinical Sciences, Department of Plastic Surgery, University of Gothenburg, Sahlgrenska University Hospital, Gothenburg, Sweden
- 2:45 pm  
Lectern 2
- 149**  
**SALVAGE EAR RECONSTRUCTION OF THE UNSATISFIED PATIENT: AN AUTOGENOUS APPROACH**  
Presenter: Akira Yamada M.D. (6 min)  
Authors: Akira Yamada M.D.  
Institution: World Craniofacial Foundation
- 2:51pm Discussion (9 min)

ROOM B

02:00 – 03:00 pm

**CONCURRENT SESSION 8**

**Planning and imaging**

Moderators: Davinder J. Singh, M.D., David Dunaway, M.D.

2:00 pm  
Lectern 1

**150**

**OBSERVATIONS ON THE DIFFUSION MAGNETIC RESONANCE IMAGING IN CHILDREN WITH CRANIOSYNOSTOSIS**

Presenter: Alexandrou K. M.D. (3 min)

Authors: Alexandrou K. M.D., Mentzelopoulos A., Karanasiou I., Matsopoulos G., Uzunoglu N., Panagopoulos K.

Institution: Hellenic Craniofacial Center and National Technical University of Athens

2:03 pm  
Lectern 2

**151**

**USE OF ANTE-NATAL ULTRASOUND TO DIAGNOSE SAGITTAL SYNOSTOSIS**

Presenter: Peter Anderson M.D. (3 min)

Authors: Peter Anderson M.D., David David, Sarah Constantine

Institution: Australian Craniofacial Unit

2:06 pm  
Lectern 1

**152**

**PURSUING A 3D CEPHALOMETRIC NORM IN EUMORPHICS: EVALUATION METHOD AND PRELIMINARY RESULTS**

Presenter: Giovanni Badiali M.D. (3 min)

Authors: Giovanni Badiali M.D., Federica Ruggiero, Cristiana Saporosi, Claudio Marchetti, Alberto Bianchi

Institution: Oral and Maxillo-facial Surgery Dept, S.Orsola University Hospital Bologna, DIBINEM, Alma Mater Studiorum University of Bologna

2:09 pm  
Lectern 2

**153**

**A VALIDATED COMPUTATIONAL MODEL OF NORMAL CALVARIAL GROWTH IN HUMANS**

Presenter: Mehran Moazen M.D. (3 min)

Authors: Joseph Libby, Arsalan Marghoub, David Johnson, Roman Khonsari, Michael Fagan, Mehran Moazen M.D.

Institution: University of Hull, UK

2:12 pm  
Lectern 1

**154**

**DIFFUSION TENSOR IMAGING FIBER TRACTOGRAPHY IN YOUNG NON-OPERATED CRANIOSYNOSTOSIS PATIENTS**

Presenter: B.F.M. Rijken M.D. (3 min)

Authors: B.F.M. Rijken M.D., J.M. Florisson, M. Bedar, A. Leemans, K. van Montfort, M.H. Lequin, I.M.J. Mathijssen

Institution: Erasmus MC, Rotterdam, the Netherlands

- 2:15 pm  
Lectern 2
- 155**  
**ULTRASOUND ASSESSMENT OF THE CRANIAL VENOUS DRAINAGE IN SYNDROMIC AND NON-SYNDROMIC CRANIOSYNOSTOSIS: A PROSPECTIVE CASE-CONTROL PILOT STUDY**  
Presenter: Martijn Cornelissen M.D. (3 min)  
Authors: Martijn Cornelissen M.D., Robbin de Goederen, Priya Doerga, Marie-Lise van Veelen, Jeroen Dudink, Irene Mathijssen  
Institution: Erasmus University Medical Center, Rotterdam, the Netherlands
- 2:18 pm  
Discussion (9 min)
- 2:27 pm  
Lectern 1
- 156**  
**CHARACTERIZATION OF BILATERAL PARIETAL THINNING**  
Presenter: Paymon Sanati-Mehrizy, M.D. (3 min)  
Authors: Paymon Sanati-Mehrizy, M.D., Marisa Cornejo, Hope Weissler, Michael J Ingargiola, Thomas Naidich, Peter J Taub  
Institution: Icahn School of Medicine at Mount Sinai
- 2:30 pm  
Lectern 2
- 157**  
**PERFUSION OF THE BRAIN IN CHILDREN WITH SYNDROMIC CRANIOSYNOSTOSIS AND HEALTHY CONTROLS**  
Presenter: Priya Doerga M.D. Authors: Priya Doerga M.D (3 min)  
Coauthors: M. Wagner, A. Poretti, R. Tasker, M.H. Lequin, I.M.J. Mathijssen  
Institution: ErasmusMC
- 2:33 pm  
Lectern 1
- 158**  
**MODELING CRANIOSYNOSTOSIS SEVERITY AND PROGRESSION IN INFANTS USING HIDDEN MARKOV MODELS**  
Presenter: David Khechoyan M.D. (3 min)  
Authors: David Khechoyan, Salem Karani, Ron Goldman, John Phillips  
Institution: Children's Hospital Colorado
- 2:36 pm  
Lectern 2
- 159**  
**APPLICATION OF GEOMETRIC MORPHOMETRICS AND STATISTICAL MODELING IN CRANIOFACIAL SURGERY**  
Presenter: David Dunaway M.D. (3 min)  
Authors: David Dunaway M.D., Alan Ponniah, James Booth, Anastasios Roussos, Nai Rodriguez-Florez, Silvia Schievano, Stefanos Zafeiriou  
Institution: Great Ormond Street Hospital for Children
- 2:39 pm  
Lectern 1
- 160**  
**3D VIRTUAL PLANNING IN CRANIOMAXILLOFACIAL SURGERY**  
Presenter: David Genecov, MD (3 min)  
Authors: David Genecov, MD, Carlos Raul Barcelo de la Isla  
Institution: International Craniofacial institute
- 2:42 pm  
Lectern 2
- 161**  
**CT LANDMARKS FOR THE MORPHOLOGICAL ASSESSMENT OF UNICORONAL CRANIOSYNOSTOSIS**  
Presenter: H. Shido, M.D. (3 min)  
Authors: Hiroshi Nishikawa, H. Shido M.D., D. Rodrigues, M. Evans, N White, S Dover  
Institution: Birmingham Children's Hospital

2:45 pm  
Lectern 1

**162**  
**DIAGNOSTIC IMAGING OF SKULL DEFORMITIES WITH BLACK BONE MRI**  
Presenter: Anne Saarikko M.D. (6min)  
Authors: Anne Saarikko M.D. Kuusela Linda, Brandstack Nina, Autti Taina  
Institution: Cleft and Craniofacial Unit, Dep Plastic Surgery

2:51 pm  
Lectern 2

Discussion (9 min)

## ROOM A

03:00 – 04:00 pm

**CONCURRENT SESSION 9**  
**Hemifacial Microsomia**  
Moderators: Scott Bartlett, M.D., Oleh Antonyshyn, M.D.

3:00 pm  
Lectern 1

**163**  
**OPEN CALLUS MANIPULATION: A STEP FORWARD IN DISTRACTION OSTEOGENESIS RECONSTRUCTION OF THE MANDIBLE AND MAXILLA**  
Presenter: Alberto Pereira M.D. (3 min)  
Authors: Alberto Pereira M.D., Paulo Neves  
Institution: Portuguese Armed Forces Hospital

3:03 pm  
Lectern 2

**164**  
**ANATOMIC CONSIDERATIONS FOR THE FIRST TEMPOROMANDIBULAR JOINT VASCULARIZED COMPOSITE ALLOTRANSPLANTATION**  
Presenter: Nima Khavanin M.D. (3 min)  
Authors: Nima Khavanin M.D., Diana Lee, Amir H Dorafshar, Patrick Byrne, Edward H Davidson  
Institution: Johns Hopkins Hospital

3:06 pm  
Lectern 1

**165**  
**GROWTH POTENTIAL OF FREE FIBULA FLAP FOR MANDIBULAR RECONSTRUCTION IN PEDIATRIC AGE**  
Presenter: Gerardo Chavez-Perez M.D. (3 min)  
Authors: Eric Santamari, Soledad Rubio-Mainardi, Damian Palafox, Gerardo Chavez-Perez, Candelaria Cueto  
Institution: Hospital General Dr Manuel Gea Gonzalez

3:09 pm  
Lectern 2

**166**  
**A RETROSPECTIVE REVIEW OF FREE FIBULA FLAP FOR PEDIATRIC MANDIBLE RECONSTRUCTION AFTER TUMOR RESECTION**  
Presenter: Ruth Lumbuun M.D. (3 min)  
Authors: Prasetyanugraheni Kreshanti, Ruth Lumbuun M.D., Dewi Mukkaramah, Parintosa Atmodiwirjo  
Institution: Plastic Reconstructive and Aesthetic Surgery Division, Department of Surgery, Cipto Mangunkusumo Hospital - Faculty of Medicine, Universitas Indonesia

3:12 pm  
Lectern 1

**167**  
**DEVELOPMENT OF A FULLY BURIED PERSONALISED 3D INTERNAL MANDIBULAR DISTRACTION DEVICE**

Presenter: Will Rodgers M.D. (3 min)  
Authors: Will Rodgers M.D., Owase Jeelani, Alessandro Borghi, Silvia Schievano, David Dunaway  
Institution: Great Ormond Street Hospital for Children

3:15 pm  
Lectern 2

**168**  
**LEFORT 2.5 OSTEOTOMY WITH MIDFACE DISTRACTION FOR THE TREATMENT OF NAGER SYNDROME**

Presenter: Sagar Mehta M.D. (3 min)  
Authors: Sagar Mehta M.D., Barbu Gociman, Faizi Siddiqi, Neal Moores, Duana Yamashiro  
Institution: University of Utah

3:18 pm

Discussion (9 min)

3:27 pm  
Lectern 1

**169**  
**ICHOM CRANIOFACIAL MICROSOMIA - THE DEVELOPMENT OF A STANDARD SET BY GLOBAL MULTIDISCIPLINARY WORKING GROUP**

Presenter: Justine O'Hara M.D. (6min)  
Authors: Justine O'Hara M.D., Dunaway, D, Arora, J, Koudstaal, M  
Institution: Great Ormond Street Hospital for Sick Children

3:33 pm  
Lectern 2

**170**  
**COMBINED SOFT AND SKELETAL TISSUE MODELLING OF NORMAL AND DYSMORPHIC MIDFACE POSTNATAL DEVELOPMENT**

Presenter: Amel Ibrahim M.D. (6min)  
Authors: Amel Ibrahim M.D., Michael Suttie, Roberto L. Flores, David Dunaway, Peter Hammond, Patrizia Ferretti  
Institution: UCL Great Ormond Street Institute of Child Health, University College London

3:39 pm  
Lectern 1

**171**  
**EXPERIENCE OF HEMIFACIAL RECONSTRUCTION WITH PREFABRICATED EXPANDED SUPRACLAVICULAR FLAP**

Presenter: Cheng Chun Wu M.D. (6min)  
Authors: Cheng Chun Wu M.D., Jui Pin Lai  
Institution: Chang Gung Memorial Hospital Kaohsiung

3:45 pm  
Lectern 2

**172**  
**BALANCING DISTRACTION FORCES IN THE MANDIBLE: NEWTONS THIRD LAW OF DISTRACTION**

Presenter: Sameer Shakir, MD (6 min)  
Authors: Sameer Shakir, MD, Sanjay Naran, MD, Kristen M. Lowe, DDS, MS, Jesse A. Taylor, MD, Scott P. Bartlett, MD  
Institution: Children's Hospital of Philadelphia

3:51 pm

Discussion (9 min)

### ROOM B

03:00 – 04:00 pm

#### **CONCURRENT SESSION 9 Syndromic Craniosynostosis**

Moderators: Juan Martin Chavanne, M.D., Eric Arnaud, M.D.

3:00 pm  
Lectern 1

**173**

#### **SIGNIFICANCE OF MIDFACIAL DISTRACTION FOR INFANTS WITH SYNDROMIC CRANIOSYNOSTOSIS**

Presenter: Nobuyuki Mitsukawa M.D. (3 min)

Authors: Nobuyuki Mitsukawa M.D., Yoshitaka Kubota, Shinsuke Akita, Kaneshige Satoh

Institution: Dept. of Plastic and Reconstructive Surgery, Chiba University

3:03 pm  
Lectern 2

**174**

#### **COMPARISON OF COMPLICATION RATE BETWEEN MONOBLOC ADVANCEMENT AND LEFORT III OSTEOTOMY, WITH OR WITHOUT DISTRACTION OSTEOGENESIS, IN THE TREATMENT OF CRANIOSYNOSTOSIS**

Presenter: Rebecca Knackstedt M.D. (3 min)

Authors: Rebecca Knackstedt M.D., Bahar Bassiri, Antonio Rampazzo

Institution: Cleveland Clinic Foundation

3:06 pm  
Lectern 1

**175**

#### **FUNCTIONAL OUTCOME COMPARISON OF LENGTHENING TEMPORALIS MYOPLASTY AND FREE GRACILIS MUSCLE TRANSFER IN CHILDREN WITH FACIAL PALSY**

Presenter: Phuong Nguyen, M.D. (3 min)

Authors: Phuong Nguyen, M.D. , Dan Mazzaferro, Kristin Faschan, Sameer Shakir, Oksana Jackson, Scott Bartlett

Institution: Childrens Hospital of Philadelphia

3:09 pm  
Lectern 2

**176**

#### **THE MONOBLOC FRONTOFACIAL ADVANCEMENT; THE FORTY-YEAR EXPERIENCE OF A SINGLE CENTRE**

Presenter: Tomas O'Neill, M.D. (6 min)

Authors: Tomas O'Neill, M.D., Walter Flapper, Vani Prasad, Alistair Jukes, Lynette Moore, Steve Santoreous

Institution: Australian Craniofacial Unit

3:15 pm  
Lectern 1

**177**

#### **COGNITIVE, BEHAVIOURAL, SPEECH, LANGUAGE AND DEVELOPMENTAL OUTCOMES ASSOCIATED WITH MUTATIONS OF THE ERF GENE**

Presenter: Helen Care M.D. (3 min)

Authors: Helen Care M.D., Carrie Luscombe, Louise Dalton, David Johnson, Steven Wall, Andrew Wilkie

Institution: Oxford Craniofacial Unit, Oxford University Hospitals NHS Foundation Trust, Oxford UK

- 3:18 pm  
Lectern 2
- 178**  
**TRANSORBITAL SURVAL NERVE GRAFTING FOR PEDIATRIC NEUROTROPHIC KERATOPATHY**  
Presenter: Sameer Shakir M.D. (3min)  
Authors: Sameer Shakir M.D., J. Thomas Paliga, Karen Revere, William Katowitz, Phuong D. Nguyen  
Institution: Children's Hospital of Philadelphia
- 3:21 pm  
Discussion (9 min)
- 3:30 pm  
Lectern 1
- 179**  
**CORRECTION OF SECONDARY CRANIOSYNOSTOSIS DEFORMITIES WITH AUTOLOGOUS FAT**  
Presenter: Bryant A Toth, M.D. (6 min)  
Authors: Bryant A Toth, M.D., Peter Sun  
Institution: UCSF-Benioff Childrens Hospital, Oakland, California
- 3:36 pm  
Lectern 2
- 180**  
**FAT GRAFTING: THE FINAL TOUCH IN CRANEOFACIAL DEFORMITIES**  
Presenter: Pablo Arrieta, M.D. (6 min)  
Authors: Pablo Arrieta, M.D., Damián Palafox, Fernando Molina.  
Institution: Fernando Ortiz Monasterio Foundation, Hospital Angeles del Pedregal Mexico City
- 3:42 pm  
Lectern 1
- 181**  
**PREDICTORS OF AUTOLOGOUS FREE FAT GRAFT RETENTION IN THE MANAGEMENT OF CRANIOFACIAL CONTOUR DEFORMITIES**  
Presenter: Cassio Eduardo Raposo Amaral M.D. (6 min)  
Authors: Cassio Eduardo Raposo Amaral M.D., Rafael Denadai, Cesar Augusto Raposo Amaral  
Institution: SOBRAPAR
- 3:48 pm  
Lectern 2
- 182**  
**INTRAOPERATIVE THREE-DIMENSIONAL VIRTUAL REALITY AND COMPUTED TOMOGRAPHIC GUIDANCE IN TEMPOROMANDIBULAR JOINT ARTHROPLASTY OF SYNDROMIC CRANIOFACIAL DYSOSTOSES**  
Presenter: Thomas Willson M.D. (3min)  
Authors: Thomas Willson M.D., Miles PfaffJulia Ayeroff, James P. Bradley, Justine C. Lee  
Institution: University of California Los Angeles
- 3:51 pm  
Discussion (9 min)
- 04:00 – 04:30 pm  
Coffee Break: Visit to the Exhibit and E-Posters Presentations

### ROOM A

04:30 – 05:30 pm

#### CONCURRENT SESSION 10

##### Hemifacial Microsomia and Treacher Collins

Moderators: Joseph G. Mc Carthy, M.D., Mc Kay Mc Kinnon, M.D.

4:30 pm

Lectern

**183**

##### **SURGERY-FIRST ORTHOGNATHIC SURGERY FOR FACIAL ASYMMETRY USING INTERNAL MANDIBULAR 3D-TYPE DISTRACTOR**

Presenter: Yorikatsu Watanabe M.D. (6 min)

Authors: Yorikatsu Watanabe M.D., Takahiro Yamamoto, Ryo Sasaki, Tanetaka Akizuki

Institution: Tokyo Metropolitan Police Hospital

4:36 pm

Lectern 2

**184**

##### **NEW TECHNIQUE TO MANAGE NARROWED MANDIBULAR RAMI IN PEDIATRIC PATIENTS**

Presenter: Filipp Vladimirov M.D. (6 min)

Authors: Filipp Vladimirov M.D., Dmitry Komelyagin, Dubin Sergey, Topolnickiy Orest, Dergachenko Anna, Krashennikov Leonid

Institution: Moscow State University of Medicine and Dentistry

4:42 pm

Lectern 1

**185**

##### **CHANGING THE FACIAL FEATURES OF PATIENTS WITH TREACHER COLLINS SYNDROME PROTOCOL FOR 3-STAGE TREATMENT OF HARD AND SOFT TISSUE HYPOPLASIA IN THE UPPER HALF OF THE FACE**

Presenter: Nobuyuki Mitsukawa M.D. (6 min)

Authors: Nobuyuki Mitsukawa M.D., Atsuomi Saiga, Yoshitaka Kubota, Kaneshige Satoh

Institution: Dept. of Plastic and Reconstructive surgery, Chiba University

4:48 pm

Lectern 2

**186**

##### **TREACHER COLLINS SYNDROME ECTROPION CORRECTION WITH MICRO MITEK CANTHOPEXY: A NEW OPTION - PRELIMINARY, LONG-TERM FOLLOW-UP**

Presenter: Albaraa Algerian M.D. (6 min)

Authors: Marie Lucie Lessard, Albaraa Algerian M.D., Hassan AlNaeem

Institution: McGill University Health Center

4:54 pm

Lectern 1

**187**

##### **ALGORITHM FOR EAR RECONSTRUCTION AFTER RADICAL RESECTION OF ARTERIOVENOUS MALFORMATION OF THE AURICULAR REGION**

Presenter: Dov Charles Goldenberg M.D. (3 min)

Authors: Dov Charles Goldenberg M.D., Marina Vilela Chagas Ferreira, Rolf Gemperli

Institution: Division of Plastic Surgery Hospital das Clinicas University of Sao Paulo Medical School

4:57 pm

Discussion (8 min)

### PLANNING AND IMAGING

5:05 pm  
Lectern 2

**188**

#### **AUTOMATIC PLANNING OF CRANIAL VAULT RECONSTRUCTION FOR METOPIC CRANIOSYNOSTOSIS TREATMENT**

Presenter: Antonio R. Porras M.D. (3 min)

Authors: Antonio R. Porras M.D., Beatriz Paniagua, Andinet Enquobahrie, Robert Keating, Gary F. Rogers, Marius George Linguraru

Institution: Childrens National Health System

5:08 pm  
Lectern 1

**189**

#### **IMPROVING AESTHETIC OUTCOMES UTILIZING IMAGE-GUIDED SURGICAL NAVIGATION IN FRONTAL BONE CONTOURING**

Presenter: Brian T Andrews MD (3 min)

Authors: James D Vargo MD, James P Bradley MD, Brian T Andrews MD

Institution: University of Kansas Medical Center

5:11 pm  
Lectern 2

**190**

#### **INNOVATIVE APPLICATION OF ROBOTIC (ROSA) ASSISTANCE IN LE FORT III DISTRACTION OSTEOGENESIS**

Presenter: Pramod Subash M.D. (3 min)

Authors: Pramod Subash M.D., Suhas Udayakumaran, Ashok Pillai, Arjun Krishnadas

Institution: Amrita Institute of Medical Sciences, Kochi, India

5:14 pm  
Lectern 1

**191**

#### **ORBITAL MORPHOLOGY IN CROUZON SYNDROME: A 3D ASSESSMENT BEFORE AND AFTER FRONTO-FACIAL MONOBLOC ADVANCEMENT WITH INTERNAL DISTRACTION**

Presenter: Khonsari M.D. (3min)

Authors: Khonsari M.D., Roman Hossein Khonsari, Johan Nysjö, Ronak Sandy, Ingela Nyström, Giovanna Paternoster, Eric Arnaud

Institution: Hôpital Universitaire Necker - Enfants Malades, Paris, France

5:17 pm  
Lectern 2

**192**

#### **EVALUATION OF THE ACCURACY OF A 3D IMAGING SYSTEM IN CRANIOFACIAL PATIENTS**

Presenter: Ben Robertson, M.D. (3 min)

Authors: Christian Duncan, David Richardson, Joern Wittig, Chris Parks, Ben Robertson, M.D., Ajay Sinha

Institution: Alder Hey Childrens Hospital NHSFT

5:20 pm  
Lectern 1

**193**

#### **HOLOGRAPHIC CRANIOFACIAL SURGICAL PLANNING APPLICATION: EVALUATION OF USABILITY**

Presenter: Kihyun Cho, MD, MSc (6 min)

Authors: Kihyun Cho, MD, MSc, Jeff Yanof, PhD, Graham S Schwarz, MD, FACS, Karl West, MS, Bahar Bassiri, Gharb, MD, PhD, Francis A. Papay, MD

Institution: Plastic Surgery, Cleveland Clinic, Cleveland, Ohio, USA

5:26 pm

Discussion (8 min)

### ROOM B

04:30 – 06:30 pm

#### CONCURRENT SESSION 10

##### Syndromic Craniosynostosis

Moderators: Bryant Toth, M.D., Christopher Forrest, M.D.

4:30 pm  
Lectern 1

**194**

##### **ORBITAL PHENOTYPE IN TREACHER COLLINS SYNDROME: A STUDY USING MESH-BASED SEGMENTATION AND 3D SHAPE COMPARISON**

Presenter: Julie Levasseur (3 min)

Authors: Khonsari, M.D., Julie Levasseur, Ronak Sandy, Arnaud Picard, Pierre Corre, Johan Nysjö, Roman Hossein Khonsari

Institution Hôpital Universitaire Necker - Enfants Malades, Paris, France

4:33 pm  
Lectern 2

**195**

##### **MINIMALLY INVASIVE ENDOSCOPIC STRIP CRANIECTOMY FOR CRANIOSYNOSTOSIS: RESULTS OF 100 CONSECUTIVE CASES**

Presenter: Suresh N. Magge M.D. (3 min)

Authors: Suresh N. Magge M.D., Orgest Lajthia, Robert F. Keating, John S. Myseros, Chima O. Oluigbo, Gary F. Rogers

Institution: Childrens National Health System

4:36 pm  
Lectern 1

**196**

##### **MANAGEMENT OF THE INADEQUATELY MANAGED ENDOSCOPIC ASSISTED CORRECTION OF CRANIOSYNOSTOSIS - ROTTERDAM EXPERIENCE**

Presenter: Vani Prasad M.D. (3 min)

Authors: Vani Prasad M.D., Vani Prasad, Abdullah Khawar, Marie-Lise van Veelan, Sarah Versnel, Irene Mathijssen

Institution: Sophia Children's Hospital, Rotterdam

4:39 pm  
Lectern 2

**197**

##### **SECONDARY DISTRACTION LE FORT 3 AFTER FRONTOFACIAL MONOBLOC IMPROVES RESISTANT SLEEP APNEA**

Presenter: Sam Haber, M.D. (3 min)

Authors: Sam Haber, M.D., Junnu Leikola, Daniel Saiepour, Brigitte Fauroux, Hossein Khonsari, Eric Arnaud

Institution: Hospital Necker craniofacial unit

4:42 pm  
Lectern 1

**198**

##### **EVALUATION OF ENDOSCOPIC STRIP CRANIECTOMY FOR BILATERAL CORONAL CRANIOSYNOSTOSIS AT TWO INSTITUTIONS**

Presenter: Gary Skolnick M.D. (3 min)

Authors: Conor Williams, Matthew Smyth, Gary Skolnick M.D., Sybill Naidoo, Mark Proctor, Kamlesh Patel

Institution: Washington University School of Medicine in St. Louis

4:45 pm  
Lectern 2

**199**

##### **INCIDENCE OF CRANIAL BASE SUTURE FUSION IN INFANTS WITH CRANIOSYNOSTOSIS**

Presenter: Jesse Taylor M.D. (6 min)

Authors: Jesse Taylor M.D., Dan Mazzaferro, Ari Wes, Sanjay Naran, Scott Bartlett

Institution: The Childrens Hospital of Philadelphia

- 4:51 pm Discussion (10 min)
- 5:01 pm  
Lectern 1 **200**  
**THE MORPHOMETRICS ABOUT ORBITAL AND MAXILLARY AREA AFTER CRANIOFACIAL OPERATION IN CHILDREN WITH PREMATURE CRANIOSYNOSTOSIS**  
Presenter: Shen Weimin M.D. (3min)  
Authors: Shili Jun, Shen Weimin, Gaoqing Wen, Kongliang Liang  
Institution: Department of Plastic Surgery, Children's Hospital of Nanjing Medical University
- 5:04 pm  
Lectern 2 **201**  
**THE EFFECT OF PREOPERATIVE MOLDING HELMET ON CALVARIAL GROWTH OF PATIENTS WITH SAGITTAL SYNOSTOSIS**  
Presenter: Asra Hashmi, MD (3 min)  
Authors: Asra Hashmi, MD, Asra Hashmi, MD, Sandeep Sood, MD, Nicole Steele, Arlene Rozzelle, MD  
Institution: Wayne State University/Detroit Medical Center
- 5:07 pm  
Lectern 1 **202**  
**SPRING-MEDIATED CRANIOPLASTY IN SAGITTAL SYNOSTOSIS: DOES AGE AT PLACEMENT AFFECT RESULTS?**  
Presenter: Sanjay Naran M.D. (3min)  
Authors: James Sun, Netanja S ter Maaten, Daniel M Mazzaferro, Sanjay Naran M.D, Scott P Bartlett, Jesse A Taylor  
Institution: Childrens Hospital of Philadelphia
- 5:10 pm  
Lectern 2 **203**  
**AN APPRAISAL OF THE CEPHALIC INDEX IN SAGITTAL CRANIOSYNOSTOSIS, AND THE UNSEEN 3RD DIMENSION**  
Presenter: Jeffrey Fearon M.D. (6 min)  
Authors: Jeffrey Fearon M.D., Kanlaya Dittakasem, MNS, RN, Morley Herbert, PhD, John Kolar, PhD  
Institution: The Craniofacial Center
- 5:16 pm  
Lectern 1 **204**  
**LONG TERM FOLLOW UP IN CRANIOFACIAL OSTEOGENIC DISTRACTION WITH RESORBABLE DEVICES**  
Presenter: Hector Malagon, M.D. (6 min)  
Authors: Hector Malagon, M.D., Vilchis Roberto, Ayala Fernan  
Institution: Head of Plastic Surgery/ Craniofacial Surgery
- 5:22 pm Discussion (9 min)
- 5:31 pm  
Lectern 2 **205**  
**OUTCOMES OF ENDOSCOPIC-ASSISTED SPRING-MEDIATED CRANIOPLASTY COMPARED TO OPEN SPRING-MEDIATED CRANIOPLASTY**  
Presenter: Kyle Steven Gabrick (3 min)  
Authors: Christopher Michael Runyan, Kyle Steven Gabrick, Jungwon Genevieve Park, Edreca Allison Thompson, Daniel Couture, Lisa Renee David  
Institution: Wake Forest Baptist Medical Center

- 5:34 pm  
Lectern 1
- 206**  
**COGNITIVE ASSESSMENT IN SCHOOL AGE CROUZON AND PFEIFFER AFTER FRONTOFACIAL MONOBLOC**  
Presenter: Martin Rachwalski (3min)  
Authors: X. Dahiez, L. Pamphile-Tabuteau, K. André, N. Angeard, M. Zerah, E. Arnaud, M. Rachwalski  
Institution: Hospital Necker CF unit-Psychology
- 5:37 pm  
Lectern 2
- 207**  
**FRONTAL WIDENING AND REMODELING FOR SCAPHOCEHALIC CHILDREN OLDER THAN ONE**  
Presenter: X. L. Jing M.D. (3min)  
Authors: Eric Arnaud, X. L. Jing M.D., G. Paternoster, S. James, X. Liu, M. Zerah  
Institution: Hospital Necker craniofacial unit
- 5:40 pm  
Lectern 1
- 208**  
**UNTANGLING ASSOCIATIONS BETWEEN SURGICAL PARAMETERS AND HEAD SHAPE IN SPRING-ASSISTED CRANIOPLASTY**  
Presenter: NU Owase Jeelani M.D. (6 min)  
Authors: Naiara Rodriguez-Florez, Jan L Bruse, Alessandro Borghi, Silvia Schievano, NU Owase Jeelani M.D., David J Dunaway  
Institution: UCL GOS Institute of Child Health and Great Ormond Street Hospital for Children
- 5:46 pm  
Lectern 2
- 209**  
**THE USE OF CAD/ CAM TMJ PROSTHESES IN PATIENTS WITH CONGENITAL CRANIOFACIAL DEFORMITIES**  
Presenter: Ignacio Garcia Recuero, MD (6 min)  
Authors: Ignacio Garcia Recuero, A.I. Romance MD, M. Redondo Alamillos, G.S. Aniceto MD.PhD.  
Institution: Oral and Maxillofacial Surgery Servicel.H.U.
- 5:52pm
- Discussion (9 min)

### CRANIOSYNOSTOSIS AND PIERRE ROBIN

Moderators: Cassio E Raposso do Amaral, M.D, Alicia Sigler, MD

- 6:01 pm  
Lectern 1
- 210**  
**MANDIBULAR OSTEOGENIC DISTRACTION IN NEONATES WITH PIERRE ROBIN SEQUENCE - SEVENTEEN YEARS EXPERIENCE - RESULTS ON FIRST TWENTY CASES**  
Presenter: Marcus Collares M.D. (6 min)  
Authors: Marcus Collares M.D, Mariana M Fraga, Denise Manica, Temis Felix, Jorge Morán, Simone Fagundes, Aline Tovo, Silvia Dorneles  
Institution: University of Rio Grande do Sul - Brazil
- 6:07 pm  
Lectern 2
- 211**  
**CRANIOCERVICAL INSTABILITY IN PIERRE-ROBIN SEQUENCE ASSOCIATED WITH SKELETAL DYSPLASIA: CASE REPORT**  
Presenter: Jack E. Brooker M.D. (3 min)  
Authors: Xiao Zhu, Jonathan Y. Lee, Jack E. Brooker M.D., Jesse A. Goldstein, Joseph E. Losee  
Institution: University of Pittsburgh Department of Plastic Surgery

6:10 pm  
Lectern 1

**212**  
**REACHING LINGUAL ORTHOTOPY IN OROPHARYNGEAL OBSTRUCTION -  
A TECHNIQUE PROPOSAL**

Presenter: Jullyana Heinen Peixoto M.D. (3 min)  
Authors: Vera Lucia Nocchi Cardim , Jullyana Heinen Peixoto M.D,  
Alessandra dos Santos Silva  
Institution: Beneficência Portuguesa de São Paulo

6:13 pm  
Lectern 2

**213**  
**MANDIBULAR MORPHOLOGY AFTER DISTRACTION OSTEOGENESIS IN SYNDROMIC  
PIERRE ROBIN SEQUENCE PATIENTS**

Presenter: Renata Maricevich M.D. (3 min)  
Authors: Renata Maricevich M.D., Wendy Chen, Jeffrey G Trost, Jr., Jesse A Goldstein,  
Joseph E Losee  
Institution: Texas Childrens Hospital

6:16 pm  
Lectern 1

**214**  
**PIERRE ROBIN SEQUENCE: STRATIFYING FEEDING DYSFUNCTION AND IDENTIFYING  
VARIABLES AFFECTING OUTCOME**

Presenter: Wei Wei Lee M.D. (3 min)  
Authors: Wei Wei Lee M.D., Wendy Chen, Joshua Barnett, Matthew Ford,  
Christal V Steinbach, Jesse A Goldstein  
Institution: Childrens Hospital of Pittsburgh

6:19 pm

Discussion (10 min)

19:30-20:00

Farewell Dinner Reception. Foyer Grand Coral Room

20:00-23:00

Farewell Dinner. Grand Coral Room 1

## ROOM A

08:30 – 09:30 am

### CONCURRENT SESSION 11

#### Facial Trauma

Moderators: Peter Taub, M.D., Anil Madaree, M.D.

8:30 am  
Lectern 1

**215**

#### **FRONTAL SINUS FRACTURES: EVALUATION OF 19 CASES OF A UNIVERSITY HOSPITAL IN CAMPINAS, SÃO PAULO, BRAZIL**

Presenter: Rogerio A. Modesto de Abreu (3 min)

Authors: Rogerio A. Modesto de Abreu, Daniella N. Camargo, Leticia Watanabe

Institution: Pontifícia Universidade Católica de Campinas

8:33 am  
Lectern 2

**216**

#### **OPTIMIZATION OF ORBITAL FRACTURE FIXATION USING LOW-COST PATIENT SPECIFIC 3D PRINTED MODELS**

Presenter: Lucas Dvoracek M.D. (3 min)

Authors: Lucas Dvoracek M.D., Jonathan Lee, Jignesh Unadkat, Joseph Losee, Jesse Goldstein

Institution: University of Pittsburgh Department of Plastics Surgery

8:36 am  
Lectern 1

**217**

#### **A SYSTEMATIC REVIEW OF ENDOSCOPIC REPAIR OF MANDIBLE FRACTURES**

Presenter: Paymon Sanati-Mehrizy M.D. (3 min)

Authors: Paymon Sanati-Mehrizy M.D., Benjamin B Massenburg, Rami D Sherif, Michael J Ingargiola, Saba Motakef, Peter J Taub

Institution: Icahn School of Medicine at Mount Sinai

8:39 am  
Lectern 2

**218**

#### **THE HYBRID ARCH BAR IS A COST-BENEFICIAL ALTERNATIVE IN THE OPEN TREATMENT OF MANDIBULAR FRACTURES**

Presenter: Visakha Suresh, BS (3 min)

Authors: Renata Khelemsky, DDS, MD, David B Powers, DMD, MD, FACS, FRCS, Seth Greenberg, DMD, Ellen Johnson Silver, PhD, Visakha Suresh, BS, Michael Turner, DDS, MD

Institution: Albert Einstein College of Medicine

8:42 am  
Lectern 1

**219**

#### **MANAGEMENT OF HIGH-ENERGY AVULSIVE BALLISTIC FACIAL INJURY: A REVIEW OF THE LITERATURE AND ALGORITHMIC APPROACH**

Presenter: Elbert E Vaca M.D. (6 min)

Authors: Elbert E Vaca M.D. Justin L Bellamy, Sammy Sinno, Eduardo D Rodriguez

Institution: Northwestern Memorial Hospital, Division of Plastic and Reconstructive Surgery

8:48 am

Discussion (9 min)

- 8:57 am  
Lectern 2
- 220**  
**COMPARATIVE ANALYSIS OF CUSTOM VS MANUALLY SHAPED IMPLANTS FOR ORBITAL FLOOR RECONSTRUCTION**  
Presenter: Reid Chambers M.D. (6 min)  
Authors: Reid Chambers M.D., Joel Davies, Glenn Edwards, Amani Ibrahim, Michael Hardisty, Oleh Antonyshyn  
Institution: Sunnybrook Hospital, University of Toronto
- 9:03 am  
Lectern 1
- 221**  
**ORBITAL FLOOR FRACTURE RECONSTRUCTION MATERIALS - A SYSTEMATIC REVIEW AND META-ANALYSIS**  
Presenter: Sean Cameron Smith M.D. (6 min)  
Authors: Sean Cameron Smith M.D., Alain J. Azzi, Ashley Ignatiuk, Daniel A. Peters  
Institution: University of Ottawa
- 9:09 am  
Lectern 2
- 222**  
**35 CONDYLAR FRACTURES IN 29 CHILDREN: DEMOGRAPHICS, TREATMENT, OUTCOMES, AND LONG-TERM GROWTH**  
Presenter: Wendy Chen M.D. (6 min)  
Authors: Wendy Chen M.D., Jack E Brooker, Wei Wei Lee, Lindsay A Schuster, Jesse A Goldstein, Joseph E Losee  
Institution: University of Pittsburgh Medical Center
- 9:15 am  
Lectern 1
- 223**  
**A REVIEW OF FRONTAL SINUS FRACTURES AND ASSOCIATED OCULAR COMPLICATIONS**  
Presenter: Rafael Galli, MD (3 min)  
Authors: Alex Viesel-Mathieu, MD, Rafael Galli, MD, Lucie Lessard, MD, FRCSC, FRCSC, FACS  
Institution: McGill University Health Centre
- 9:18 am  
Lectern 2
- 224**  
**AN ALGORITHMIC APPROACH TO RECONSTRUCTION OF THE ANTERIOR CRANIAL BASE IN DEVASTATING TRAUMA**  
Presenter: Sameer Shakir M.D. (3 min)  
Authors: Sameer Shakir M.D., Phuong D. Nguyen  
Institution: University of Pennsylvania
- 9:21 am
- Discussion (9 min)

**ROOM B**

08:30 – 09:30 am

**CONCURRENT SESSION 11**

**Major Facial Clefts**

Moderators: Charles Davis, M.D., Rolando Prada, M.D.

8:30 am  
Lectern 1

**225**

**LONG-TERM RESULTS AFTER 25 YEARS EXPERIENCE WITH INTERDISCIPLINARY TREATMENT OF MIDLINE FACIAL CLEFTS**

Presenter: Ricardo Bennun M.D. (6 min)

Authors: Ricardo Bennun M.D., Julia Harfin

Institution: National University of Buenos Aires, Maimonides University, Asociacion PIEL

8:36 am  
Lectern 2

**226**

**AN INTEGRATED APPROACH TO THE MANAGEMENT OF MENINGIOENCEPHALOCELE**

Presenter: Greg Thomas M.D. (6 min)

Authors: Greg Thomas M.D., Eric Tan, Jay Jayamohan, Peter Richards, Steven Wall, David Johnson

Institution: Oxford Craniofacial Unit

8:42 am  
Lectern 1

**227**

**MANAGEMENT AND ETHICAL CONSIDERATIONS OF LARGE POSTERIOR ENCEPHALOCELE**

Presenter: Ingrid Ganske, MD, MPA (6 min)

Authors: Ingrid Ganske, MD, MPA, Samantha E. Hall, BA, John G. Meara, MD, DMD, MBA, Mark Proctor, MD

Institution: Boston Children's Hospital

8:48 am  
Lectern 2

**228**

**MUSCLE EXPANSION FOR TESSIER N3 AND N4 CRANIOFACIAL CLEFT TREATMENT**

Presenter: Adriana Guerrero M.D. (3 min)

Authors: Romulo Guerrero, Adriana Guerrero M.D.

Institution: Hospital Metropolitano de Quito

8:51 am

Discussion (10 min)

9:01 am  
Lectern 1

**229**

**TRANS-SPHENOIDAL ENCEPHALOCELE REPAIR: TIMING, TECHNICAL, AND PERIOPERATIVE CONSIDERATIONS**

Presenter: Amir Elbarbary, MD (3 min)

Authors: Amir Elbarbary, MD, Henry Kawamoto, MD, DDS, James P Bradley, MD

Institution: Ain Shams University, Cairo

9:04 am  
Lectern 2

**230**

**CRANIOFACIAL CLEFTS LESSONS FROM A DECADE OF EXPERIENCE WITH 107 CASES**

Presenter: Charles Davis M.D. (6 min)

Authors: Charles Davis M.D.

Institution: Wellington Craniofacial Unit

- 9:10 am  
Lectern 1
- 231**  
**A NOVEL RECONSTRUCTION TECHNIQUE FOR THE TESSIER 4 FACIAL CLEFT**  
Presenter: Roberto Flores M.D. (6 min)  
Authors: Roberto Flores M.D., Christopher Runyan, Pradip Shetye, Elcin Esenlik,  
Lawrence Brecht, Barry Zide  
Institution: NYU Langone Medical Center
- 9:16 am  
Lectern 2
- 232**  
**THE INTERNATIONAL CRANIOPAGUS REGISTRY: DEVELOPING A DATABASE OF ALL CRANIOPAGUS TWINS**  
Presenter: Eugene Park, M.D. (6 min)  
Authors: Eugene Park MD, Arun K. Gosain MD  
Institution: Ann and Robert H. Lurie Childrens Hospital of Chicago
- 9:22 am
- Discussion (8 min)
- 09:30 – 10:00 am
- Visit to the Exhibit and Coffee Break

### ROOM A

- 10:00 – 11:30 am
- CONCURRENT SESSION 12**  
**Cleft Lip and Palate and Cleft Orthognatic**  
Moderators: Anthony Wolfe, M.D., Alvaro Figueroa, D.D.S.

- 10:00 am  
Lectern 1
- 233**  
**DETERMINING THE MOST CLINICALLY BENEFICIAL DONOR SITE FOR ALVEOLAR BONE GRAFTING IN CLEFT PALATE PATIENTS: A CRITICAL REVIEW OF THE LITERATURE**  
Presenter: Kirun Baweja, BS (3 min)  
Authors: Kirun Baweja, BS  
Institution: University of Edinburgh
- 10:03 am  
Lectern 2
- 234**  
**DEVELOPMENT OF A SMART PHONE-BASED APPLICATION FOR MORPHOLOGIC CLEFT LIP DATA COLLECTION**  
Presenter: William P. Magee M.D. (3 min)  
Authors: Meghan McCullough M.D., Caroline Yao, MS, MD, Jordan Swanson, MD,  
Allyn Ausländer, MPH, Thomas Imahiyerobo, MD, William P. Magee III, DDS, MD  
Institution: University of Southern California
- 10:06 am  
Lectern 1
- 235**  
**ALVEOLAR CLEFT SIZE ON PRENATAL ULTRASONOGRAPHY PREDICTS CLEFT OF THE SECONDARY PALATE**  
Presenter: Eva Rubio M.D. (3 min)  
Authors: Albert K. Oh, Eva Rubio M.D., Kenneth L. Fan, Anna Blask, Erin M. Rada,  
Gary F. Rogers  
Institution: Childrens National Health System

- 10:09 am  
Lectern 2
- 236**  
**BMP-2 ALVEOLAR BONE RECONSTRUCTION HAS IMPROVED BONE HEALING WITH OUT SIGNIFICANT DIFFERENCES IN DENTAL OUTCOMES**  
Presenter: Alexander Y. Lin, MD, FACS (3min)  
Authors: Jeremy A. Goss, Dave S. Ho, BS, Jeremy A. Goss, MD, Margie S. Hunter, BS, Ross E. Long, Jr, DMD, Eric S. Armbrecht, PhD, Alexander Y. Lin, MD, FACS  
Institution: Saint Louis University School of Medicine
- 10:12 am  
Lectern 1
- 237**  
**A QUALITY-BASED APPROACH TO OPTIMIZE THE ALVEOLAR BONE GRAFT: AN IMPROVED PERI-OPERATIVE PAIN MANAGEMENT PROTOCOL**  
Presenter: Dr. Justin Dagget, M.D. (3 min)  
Authors: Michael Bykowski, Wesley Sivak, Catey Garland, Franklyn Cladis, Jesse A Goldstein, Joseph E Losee, Dr. Justin Dagget, M.D.  
Institution: Childrens Hospital of Pittsburgh
- 10:15 am  
Lectern 2
- 238**  
**PRIMARY CORRECTION OF THE NASAL DEFORMITY IN UNILATERAL CLEFT LIP PATIENTS: MERGING THE PAST WITH THE PRESENT TO ACHIEVE A SATISFACTORY OUTCOME**  
Presenter: Maria del Carmen Moreno Alvarez M.D. (3 min)  
Authors: Jordi Puente Espel, Maria del Carmen Moreno Alvarez M.D.  
Institution: Hospital General de Mexico Eduardo Liceaga
- 10:18 am  
Lectern 1
- 239**  
**COMPARISON OF CASO4 TO CAPO4 IN PRIMARY ALVEOLAR CLEFT REPAIR**  
Presenter: Spiros Lazarou MD (3 min)  
Authors: Spiros Lazarou  
Institution: Chief, Pediatric Plastic & Craniomaxillofacial Surgery, Iaso Pediatric Hospital
- 10:21 am
- Discussion (10 min)
- 10:31 am  
Lectern 2
- 240**  
**ROLE OF DISTRACTION OSTEOGENESIS IN THE MANAGEMENT OF CRANIO- AND DENTOFACIAL ANOMALIES**  
Presenter: Nicolai Adolphs M.D. (3 min)  
Authors: Nicolai Adolphs M.D., Nicole Ernst  
Institution: Dept. of Craniomaxillofacial Surgery, Charit University Medicine, Berlin
- 10:34 am  
Lectern 1
- 241**  
**BIPLANAR MANDIBLE CONTOURING: DESIGN AND NAVIGATED OSTEOTOMY**  
Presenter: Min Wei, M.D. (3 min)  
Authors: Min Wei, M.D., Zheyuan Yu, Liang Xu, Jie Yuan  
Institution: Dept. of PRS, Shanghai Ninth People Hospital
- 10:37 am  
Lectern 2
- 242**  
**USE OF DISTRACTION OSTEOGENESIS IN CLEFT PATIENTS SKELETAL SEQUELS**  
Presenter: Carlos Marcelo Cerullo M.D. (3 min)  
Authors: Carlos Marcelo Cerullo M.D., Tohus Guillermo Andrés  
Institution: Hospital Italiano de Buenos Aires

- 10:40 am  
Lectern 1
- 243**  
**CHANGES TO THE CLEFT NOSE AESTHETIC AFTER LEFORT I ADVANCEMENT:  
A 3D ANALYSIS**  
Presenter: Irene Ma, M.D. (3 min)  
Authors: Irene Ma, Jonathan Lee, Loni Mae Brueckmann, Ian Chow, Joseph Losee,  
Jesse Goldstein  
Institution: University of Pittsburgh Medical Center
- 10:43 am  
Lectern 2
- 244**  
**COMBINED LE FORT 3/LE FORT 1 ORTHOGNATHIC PROCEDURES IN PATIENTS WITH  
CLEFT LIP AND PALATE: ESTHETIC RESULTS IN THE GLOBALLY MIDFACE DEFICIENT  
PATIENT**  
Presenter: Michael Lypka (3 min)  
Authors: Michael Lypka, Kevin Xiao  
Institution: Children's Mercy Hospital
- 10:46 am  
Lectern 1
- 245**  
**TREATMENT OF OBSTRUCTIVE SLEEP APNEA WITH ORTOGNACTIC SURGERY IN  
PATIENTS WITH CLEFT LIP AND PALATE**  
Presenter: Diana Marcela Diaz Lopez M.D. (3 min)  
Authors: Diana Marcela Diaz Lopez, Rolando Prada, Diana Gómez, Tatiana Palomino  
Institution: Fundación Universitaria de Ciencias de la Salud
- 10:49 am  
Lectern 2
- 246**  
**INTRAORAL DISTRACTION OSTEOGENESIS IN CLEFT PATIENTS**  
Presenter: Cesar Guerrero, M.D. 6 min)
- 10:55 am
- Discussion (10 min)
- 11:05 am  
Lectern 1
- 247**  
**ORTHOGNATHIC SURGERY IN PREVIOUSLY DISTRACTED MANDIBLES**  
Presenter: Adriana Guerrero M.D. (6 min)  
Authors: Jacobo Felemovicius, Adriana Guerrero M.D., Sara Contreras  
Institution: Hospital General Dr. Manuel Gea Gonzalez
- 11:11 am  
Lectern 2
- 248**  
**LONG TERM STABILITY OF LE FORT 1 DISTRACTION OSTEOGENESIS IN PATIENTS  
WITH CLEFT LIP AND PALATE**  
Presenter: Jordi Puente-Espel (6 min)  
Authors: Carlos Raul Barcelo M.D., David G. Genecov, Jordi Puente-Espel  
Institution: International Craniofacial Institute, Dallas TX
- 11:17 am  
Lectern 1
- 249**  
**DISTRACTION OSTEOGENESIS IN THE GROWING MAXILLA: LONG TERM RESULTS IN  
41 CONSECUTIVE PATIENTS**  
Presenter: Eugenia Page M.D (6 min)  
Authors: Eugenia Page M.D, Joseph Williams, Fernando Burstein, Paul Ghareeb,  
Stefanie Hush, Brentley Taylor  
Institution: Emory University School of Medicine

- 11:23 am  
Lectern 2
- 250**  
**CURRENT INDICATIONS AND EXPERIENCE WITH MAXILLARY DISTRACTION AT A HIGH VOLUME CENTER**  
Presenter: Paul Ghareeb M.D. (3 min)  
Authors: Paul Ghareeb, Joseph K Williams  
Institution: Emory University School of Medicine, Division of Plastic Surgery
- 11:26 am
- Discussion (10 min)

### ROOM B

- 10:00 – 11:30 am
- CONCURRENT SESSION 12**  
**Cleft, Lip and Palate, Velopharyngeal Deficiency and Cleft Rhinoplasty**  
Moderators: Kennet Salyer, M.D., Robert Menard, M.D.

- 10:00 am  
Lectern 1
- 251**  
**THE COMMON NEEDS OF ADULT PATIENTS WITH CLEFT LIP AND/OR PALATE**  
Presenter: Nicole Kurnik (3 min)  
Authors: Nicole Kurnik, MD, Stephen Beals, MD, Katharine Connolly, MD, Davinder Singh, MD, Patricia Glick, DMD, Tuan Truong, MD  
Institution: Mayo Clinic Arizona, Department of Plastic Surgery

- 10:03 am  
Lectern 2  
**WITHDRAWN**
- ~~**252**  
**AESTHETIC OUTCOMES IN UNILATERAL CLEFT LIP: COMPARISON OF MODIFIED MILLARD VERSUS FISHER REPAIR**  
Presenter: Kirstin Miteff, M.D. (3min)  
Authors: Carly Fox, M.D., Kirstin Miteff, M.D., Yun Phua, M.D., Susan O'Mahony, M.D., Richard Theile, M.D., Stuart Bade, M.D.  
Institution: Lady Cilento Children's Hospital, Brisbane Australia~~

- 10:06 am  
Lectern 1
- 253**  
**VOLUMETRIC EVALUATION OF ALVEOLAR CLEFT GRAFTING METHOD: BONE SUBSTITUTES VS AUTOLOGOUS BONE**  
Presenter: Federica Ruggiero, M.D. (3 min)  
Authors: Federica Ruggiero, M.D. Giovanni Badiali, Enrico Costabile, Claudio Marchetti, Alberto Bianchi  
Institution: Oral and Maxillo-facial Surgery Dept, S.Orsola University Hospital Bologna, Universities of Parma Bologna Ferrara

- 10:09 am  
Lectern 2
- 254**  
**HIGH-FIDELITY CLEFT LIP SIMULATION - TAKING SURGICAL REALISM TO NEW HEIGHTS**  
Presenter: Francesca Saldanha, M.D. (3 min)  
Authors: Francesca Saldanha, Andrew Hosmer, Maeve Geary, Peter Weinstock, Carolyn Rogers-Vizena  
Institution: Boston Childrens Hospital

- 10:12 am  
Lectern 1
- 255**  
**THE DILEMMA OF THE MANAGEMENT OF CLEFT PALATE IN AN APERT PATIENT:  
A RETROSPECTIVE ANALYSIS OF 43 PATIENTS**  
Presenter: Herman Jr Vercruyse, M.D. (3 min)  
Authors: Herman Jr Vercruyse M.D., Juling Ong, Nivi Behari, Caroleen Shipster,  
David Dunaway  
Institution: Craniofacial Unit, Great Ormond Street Hospital for Children, London,  
United Kingdom
- 10:15 am  
Lectern 2
- 256**  
**RHBMP-2/DBM VS. ICBG FOR SECONDARY ALVEOLAR BONE GRAFTS IN PATIENTS  
WITH CLP: REVIEW OF 501 CASES**  
Presenter: Daniel J. Gould, MD  
Authors: Daniel J. Gould, MD, PhD. (3 min), Artur Fahradyan, MD, Fan Liang, MD,  
William Magee III, MD, DDS, Mark M. Urata, MD, DDS, Jeffrey A. Hammoudeh,  
MD, DDS  
Institution: Keck School of Medicine of USC
- 10:18 am
- Discussion (10 min)
- 10:28 am  
Lectern 1
- 257**  
**THE SKOOG LIP REPAIR FOR UNILATERAL CLEFT LIP DEFORMITY - EXPERIENCE  
FROM 443 CASES**  
Presenter: Daniel Nowinski M.D. (3 min)  
Authors: Daniel Nowinski M.D., Alberto Falk-Delgado, Anna Lang, Malin Hakelius,  
Valdemar Skoog, Daniel Nowinski  
Institution: Department of surgical sciences, plastic surgery, Uppsala university
- 10:31 am  
Lectern 2
- 258**  
**CONVERSION FURLow PALATOPLASTY AND THE USE OF PRE-OPERATIVE VIDEO  
NASENDOSCOPY**  
Presenter: Alison Kaye, MD (3min)  
Authors: Alison Kaye, MD, Meghan Tracy, BA/BS, Kathryn Dent, MS, CCC-SLP  
Institution: Childrens Mercy Kansas City
- 10:34 am  
Lectern 1
- 259**  
**TEMPOROPARIETAL FASCIA FLAP FOR GIANT ORONASAL FISTULA  
RECONSTRUCTION IN CLEFT PATIENTS**  
Presenter: Enrique Olivares M.D. (3 min)  
Authors: Enrique Olivares M.D., Saturnino Santos, Laura Larraga-Nieto,  
Natalia Munoz-Ollero, Beatriz Gonzalez-Meli, Maria Jose Cimadevilla  
Institution: Universidad Europea. Hospital Universitario Nino Jesus. Madrid. Spain
- 10:37 am  
Lectern 2
- 260**  
**PREOPERATIVE AND POSTOPERATIVE POLYSOMNOGRAM IN CHILDREN UNDER  
WENT PRIMARY PALATOPLASTY**  
Presenter: Diana Carolina Gomez Prada, M.D. (3 min)  
Authors: Diana Carolina Gomez Prada, M.D., José Rolando Prada, Patricia Panqueva  
Institution: Hospital Infantil Universitario de San José

- 10:40 am  
Lectern 1
- 261**  
**SECONDARY PHARYNGOPLASTY: MANAGEMENT AND OUTCOMES**  
Presenter: John H. Pang M.D. (3 min)  
Authors: John H. Pang M.D., Xiao Zhu, Isaac James, Jack E. Brooker, Jesse A. Goldstein, Joseph E. Losee  
Institution: University of Pittsburgh Department of Plastic Surgery
- 10:43 am  
Lectern 2
- 262**  
**ACELLULAR DERMAL MATRIX IN PRIMARY PALATOPLASTY: A PROSPECTIVE TRIAL**  
Presenter: Alexander Govshievich M.D. (3 min)  
Authors: Salah Aldekhayel, Alexander Govshievich, Mirko Gilardino  
Institution: McGill University
- 10:46 am
- Discussion (10 min)
- 10:56 am  
Lectern 1
- 263**  
**SPEECH OUTCOMES IN FURLOW PALATOPLASTY VERSUS STRAIGHT-LINE INTRAVELAR VELOPLASTY**  
Presenter: Laura A. Monson, MD (3 min)  
Authors: Tara Braun, Edward P. Buchanan, MD, Kristina D. Wilson, PhD, SLP, Ellen E. Moore, MA, SLP, Cristina Hernandez, RN, Laura A. Monson, MD  
Institution: Baylor College of Medicine
- 10:59 am  
Lectern 2
- 264**  
**IMPLEMENTATION OF THE ICHOM ESTÁNDAR SET AT MID-SIZED CLEFT CENTER IN THE UNITED STATES**  
Presenter: Peter G. Bittar, B.S., B.A. (3 min)  
Authors: Peter G. Bittar, B.S., B.A., Alexander C Allori, MD, MPH, Pedro E Santiago, DMD, Anna R Carlson, MD, Jeffrey R Marcus, MD  
Institution: Duke University
- 11:02 am  
Lectern 1
- 265**  
**LONG TERM OUTCOMES IN INTERMEDIATE TIP RHINOPLASTY IN THE UNILATERAL CLEFT PATIENT**  
Presenter: Julia Ayeroff M.D. (6 min)  
Authors: Julia Ayeroff M.D., Elizabeth J. Volpicelli, Thomas Willson, Sam Asanad, Rachel S. Mandelbaum, James P. Bradley, Justine C. Lee  
Institution: University of California Los Angeles
- 11:08 am  
Lectern 2
- 266**  
**THE PUSHBACK PHARYNGEAL FLAP: A 17-YEAR EXPERIENCE**  
Presenter: Robert M Menard M.D., FACS. (6 min)  
Authors: Robert M Menard M.D., FACS., Danielle H Rochlin MD, Paul A Mittermiller MD, Clifford C Sheckter MD  
Institution: Division of Plastic and Reconstructive Surgery, Stanford University School of Medicine, Stanford, CA, USA; Northern California Kaiser Permanente Craniofacial Clinic, Department of Plastic Surgery, Kaiser Permanente Santa Clara, Santa Clara, CA, USA
- 11:14 am
- Discussion (10 min)



XVII Congress of the  
International Society of  
Craniofacial Surgery (ISCFS)

## Scientific Program

Saturday, October 28<sup>th</sup>, 2017

Grand Coral Ballroom

### ROOM A

11:30 – 12:30 pm

#### GENERAL SESSION 4

**Panel: "Interaction between Craniofacial Surgery and Orthodontics"**

Moderator: Juan Carlos Rodríguez, M.D. (Argentina)

**The NAM treatment: "The Surgeon/Orthodontist Partnership in Cleft Lip and Palate**

Treatment: Minimizing Interventions, Maximizing Outcomes

Speakers: Jeff Marcus, M.D., Pedro Santiago, D.D.S.

Orthognatic Surgery: Roberto Flores, M.D., Shetye Pradip, D.D.S.

Severe Midface Deficiency: David Dunaway, M.D., Alvaro Figueroa, D.D.S.



# E-POSTERS

- 10:30-10:45 AM  
**Computer 1**
- e-poster 1**  
**Three-Dimensional Assessment of Zygomatic Malunion Using Computed Tomography in Patients with Cheek**  
Presenter: Yung Ki Lee  
Authors: Yung Ki Lee, Baek Kyu Kim, Rong Min Baek, Chang Sik Pak  
Institution: Kyung Hee University Hospital
- 10:30-10:45 AM  
**Computer 2**
- e-poster 2**  
**Use of Orthodontics for Maxilla-Mandibular Fixation in Pediatric Mandibular Fracture: A Case Series**  
Presenter: Renata S Maricevich  
Authors: Wendy Chen, Lindsay A Schuster, Brian S Martin, Renata S Maricevich  
Institution: University of Pittsburgh Medical Center
- 10:30-10:45 AM  
**Computer 3**
- e-poster 3**  
**Reconstruction of auricular defect after human bite using advanced auricular skin cartilage flap cov**  
Presenter: Ji Min Kim  
Authors: Ji Min Kim, Min Gyu Park  
Institution: Seoul St. Mary Hospital
- 10:30-10:45 AM  
**Computer 4**
- e-poster 4**  
**Towards inclusion of parental assessments in nonsynostotic plagiocephaly research**  
Presenter: Peter J. Taub  
Authors: Hope Weissler, Peter J. Taub  
Institution: Icahn School of Medicine at Mount Sinai
- 10:30-10:45AM  
**Computer 5**
- e-poster 5**  
**Management of Frontal Sinus Fractures: A 12-Year Experience at a Level 1 Trauma Center**  
Presenter: Ian C. Hoppe  
Authors: Ian C. Hoppe, Jerette Schultz, Jordan Halsey, Edward S. Lee, Mark S. Granick  
Institution: Rutgers, New Jersey Medical School
- 10:30-10:45 AM  
**Computer 6**
- e-poster 6**  
**A Safe and Effective Method to Transfer Pedicle Vessels in Free Flap Reconstruction**  
Presenter: Hyo Young Kim  
Authors: Hyung Suk Yi, Hyo Young Kim, Hong Il Kim, Jin Hyung Park  
Institution: Kosin University College of Medicine
- 10:30-10:45 AM  
**Computer 7**
- e-poster 7**  
**Regression of Cephalic Index following Endoscopic Repair of Sagittal Synostosis**  
Presenter: Naidoo, Sybill D  
Authors: Pickersgill, Nicholas A, Skolnick, Gary B, Naidoo, Sybill D, Woo, Albert S, Smyth, Matthew D, Patel, Kamlesh B  
Institution: Washington University School of Medicine in St. Louis

- 10:30-10:45 AM  
**Computer 8**
- e-poster 8**  
**Is there an epidemiological shift in non-syndromic, single-suture craniosynostosis? Results from a literature review and a national survey of craniofacial and neurosurgeons.**  
Presenter: Michael Golinko  
Authors: Alex Han, Michael Golinko  
Institution: University of Arkansas for Medical Sciences
- 10:30-10:45 AM  
**Computer 9**
- e-poster 9**  
**Use of in situ simulation to improve management of massive hemorrhage during craniofacial surgery**  
Presenter: Sumit Das  
Authors: Sumit Das, Arnwald Choi  
Institution: Oxford Craniofacial Unit, UK
- 10:30-10:45 AM  
**Computer 10**
- e-poster 10**  
**Surgical treatment of head and neck Ewing Sarcoma of the French population.**  
Presenter: Natalie Kadlub  
Authors: kadlub, Bouaoud Jebrane, Belhous Kahina, Galmiche Louise, Bolle Stephanie, Couloigner Vincent, Arnaud Picard, Le Deley Marie-Cecile, Cozic Nathalie, Gaspar Nathalie  
Institution: Necker-Enfants-Malades-Paris Descartes
- 10:30-10:45 AM  
**Computern 11**
- e-poster 11**  
**Vermillion only cross-lip flap for treatment of whistle deformity in secondary bilateral cleft lip repair**  
Presenter: Robert Menard  
Authors: Danielle Rochlin, Clifford Sheckter, Paul Mittermiller, Robert Menard  
Institution: Stanford
- 10:30-10:45 AM  
**Computer 12**
- e-poster 12**  
**Airway management through submittal derivation. Safe and easily reproduced alternative for patients with complex facial trauma.**  
Presenter: García Cano Eugenio  
Authors: Malagón Hidalgo Héctor Omar, García Cano Eugenio, González Magaña Fernando, Vilchis López Roberto, Fentanes Vera Adriana, Ayala Ugalde Fernan Alejandra  
Institution: Instituto de Seguridad Social del Estado de México y Municipios
- 10:30-10:45 AM  
**Computer 13**
- e-poster 13**  
**Intermaxillary Fixation Efficacy With Titanium Screws In Patients With Facial Fractures And Dentofacial Deformities**  
Presenter: García Cano Eugenio  
Authors: Malagón Hidalgo Héctor Omar, García Cano Eugenio, González Magaña Fernando, González Chapa Diego Raúl  
Institution: Insituto de Seguridad Social del Estado de México y Municipios
- 10:45-11:00 AM  
**Computer 14**
- e-poster 14**  
**Correction of severe hypertelorbitism with nasoethmoid encephalocele during infancy**  
Presenter: Amir Elbarbary  
Authors: Amir Elbarbary, Walid Abdel Ghany, Assem Abdel Latif  
Institution: Plastic Surgery, Ain-Shams University

- 10:45-11:00 AM  
**Computer 2**
- e-poster 15**  
**Reossification of anterior skull base with pericranial flaps after frontofacial monobloc**  
Presenter: Anne Morice  
Authors: Anne Morice, G. Paternoster, A. Ostertag, S. James, RH Khonsari, E. Arnaud  
Institution: Hospital Necker craniofacial unit
- 10:45-11:00 AM  
**Computer 3**
- e-poster 16**  
**Evolution of Spring-Assisted Calvarial Expansion for Bicoronal Craniosynostosis**  
Presenter: Lisa Renee David  
Authors: Christopher Runyan, Kyle Steven Gabrick, Jungwon Genevieve Park, Edreca Allison Thompson, Daniel Couture, Lisa Renee David  
Institution: Wake Forest Baptist Medical Center
- 10:45-11:00 AM  
**Computer 4**
- e-poster 17**  
**Skoog Primary Periosteoplasty versus Secondary Alveolar Bone Grafting in Unilateral Cleft and Alveolus: Long-term Effects on Alveolar Bone Formation and Maxillary Growth**  
Presenter: Malin Hakelius  
Authors: Fatima Jabbari, Malin Hakelius, Andreas Thor, Erika Reiser, Valdemar Skoog, Daniel Nowinski  
Institution: Dpt of Plastic- and Maxillofacial Surgery, Uppsala University Hospital, Sweden
- 10:45-11:00 AM  
**Computer 5**
- e-poster 18**  
**Comparison Between Oximetry and Polysomnography in Identifying Airway Obstruction in Infants with Robin Sequence**  
Presenter: Rafael Galli  
Authors: Rafael Galli, Mirko Gilardino, Lucie Lessard, Aurore Côté  
Institution: McGill University
- 10:45-11:00 AM  
**Computer 6**
- e-poster 19**  
**Posterior Vault Distraction Osteogenesis: Rates of Ossification in Bone Gaps after Consolidation**  
Presenter: Sanjay Naran  
Authors: Sanjay Naran, Daniel Mazzaferro, Natasja ter Maaten, Ari Wes, Scott Bartlett, Jesse Taylor  
Institution: University of Pennsylvania
- 10:45-11:00 AM  
**Computer 7**
- e-poster 20**  
**Cost Effectiveness Analysis of Demineralized Bone Matrix and rhBMP-2 vs. autologous iliac crest grafting in Alveolar Cleft Patients**  
Presenter: Sagar Mehta  
Authors: Sagar Mehta, Barbu Gociman, Faizi Siddiqi, Duane Yamashiro, Ross Blagg, James Willcockson  
Institution: University of Utah

10:45-11:00 AM  
**Computer 8**

**e-poster 21**  
**The Clinical Effect of Surgery-first Approach for Correcting Adult Skeletal Class Three Malocclusion**  
Presenter: Guoping WU  
Authors: Guoping WU, Cunlong Li, Wensong Shangguan, Bin Zhou, Hao Dai, Wenwen Zhang, Shu Wang  
Institution: The Affiliated Friendship Plastic Surgery Hospital of Nanjing Medical University

10:45-11:00 AM  
**Computer 9**

**e-poster 22**  
**Abandoning the Supraorbital Bandeau: A Single-Piece Reconstruction for Anterior Craniosynostoses**  
Presenter: Jose Castro Garcia, MD  
Authors: Jeffrey Fearon, Kanlaya Ditthakasem, MNS, RN, Jose Castro Garcia, MD, Morley Herbert, PhD  
Institution: The Craniofacial Center, Dallas

10:45-11:00 AM  
**Computer 10**  
**WITHDRAWN**

~~**e-poster 23**  
**20 years using springs in craniofacial surgery**  
Presenter: Giovanni Maltese  
Authors: Peter Tarnow, Giovanni Maltese, Madiha Bhatti Softeland, Robert Olsson, Lars Kolby  
Institution: Dept of Plastic Surgery, Sahlgrenska University Hospital, Gothenburg, Sweden~~

10:45-11:00 AM  
**Computer 11**

**e-poster 24**  
**Lip reconstruction in animal and human bite injuries: a holistic approach**  
Presenter: Jordi Puente-Espel  
Authors: Jordi Puente-Espel, Maria del Carmen Moreno Alvarez  
Institution: Hospital General de Mexico Dr Eduardo Liceaga

10:45-11:00 AM  
**Computer 12**

**e-poster 25**  
**Four-year Experience In Treating Syndromic Craniosynostosis In Eastern Indonesia**  
Presenter: Indri Lakshmi Putri  
Authors: Magda Hutagalung, Lobredia Zarasade, Indri Lakshmi Putri  
Institution: Department of Plastic Reconstructive and Aesthetic Surgery, Airlangga University

4:00-4:15 PM  
**Computer 1**

**e-poster 26**  
**Treatment for the jaw deformity of hemifacial microsomia Pruzansky grade I**  
Presenter: Takayuki Okumoto  
Authors: Takayuki Okumoto, Yoshikazu Inoue, Takanori Miyajima, Suguru Kondo  
Institution: Department of Plastic and Reconstructive Surgery, Fujita Health University School of

4:00-4:15 PM  
**Computer 2**

**e-poster 27**  
**Craniotomy of the fused sagittal suture over the superior sagittal sinus is a safe procedure**  
Presenter: Sara Fischer  
Authors: Sara Fischer, Maltese, Giovanni, Olsson, Robert, Tarnow, Peter, Kolby Lars  
Institution: Department of Plastic Surgery, Institute for Clinical Sciences, Gothenburg University

4:00-4:15 PM  
Computer 3

**e-poster 28**

**SLCA22A5 Mutation in a Patient with Systemic Primary Carnitine Deficiency and cleft palate- Successful perioperative management**

Presenter: Ching -Wei Hu

Authors: Lun-Jou Lo, Ching -Wei Hu, Ching-Hsuan Hu, Yah-Huei Wu-Chou

Institution: Department of Plastic and Reconstructive Surgery, Chang Gung Memorial Hospital

4:00-4:15 PM  
Computer 4

**e-poster 29**

**Repeated Honeycomb Posterior Cranial Vault Distraction for Pfeiffer Syndrome: a case report**

Presenter: Yorikatsu Watanabe

Authors: Yorikatsu Watanabe, Mayu Takahashi, Tanetaka Akizuki, Shigeru Nishizawa

Institution: Department of Plastic and Reconstructive Surgery, Tokyo Metropolitan Police

4:00-4:15 PM  
Computer 5

**e-poster 30**

**Preoperative Alveolar Segment Position as a Predictor of Gingivoperiosteoplasty in Patients with Unilateral Cleft Lip and Palate**

Presenter: Jonathan M. Bekisz

Authors: Jonathan M. Bekisz, Elcin Esenlik, Travis Gibson, Court B. Cutting, Barry H. Grayson, Roberto L. Flores

Institution: New York University School of Medicine

4:00-4:15 PM  
Computer 6

**e-poster 31**

**Pediatric Cleft Surgery in Global Health: A Scoping Review**

Presenter: Kimia Sorouri

Authors: Kimia Sorouri, Karen Y Chung, Tanishq Suryavanshi, David M Fisher

Institution: University of Toronto

4:00-4:15 PM  
Computer 7

**e-poster 32**

**An Impossible Case Made Possible**

Presenter: Ingrid Ganske, MD, MPA

Authors: Ingrid Ganske, MD, MPA, Noah Schulz, MSME, Katie Livingston, ME, Susan Goobie, MD, FRCPC, John G. Meara, MD, DMD, MBA, Mark Proctor, MD, Peter Weinstock, MD, PhD

Institution: Boston Childrens Hospital

4:00-4:15 PM  
Computer 8

**e-poster 33**

**The Influence of Congenital versus Acquired Facial Palsy on Dynamic Facial Reanimation in Children**

Presenter: Phuong D. Nguyen

Authors: Phuong D. Nguyen, Kristin Faschan, Daniel M. Mazzaferro, Tami Konieczny, Oksana A. Jackson, Scott P. Bartlett

Institution: Childrens Hospital of Philadelphia

4:00-4:15 PM  
**Computer 9**

**e-poster 34**

**Unsolvable cases Association of dynamic osteotomies in the treatment of the cloverleaf skull**

Presenter: Alessandra dos Santos Silva  
Authors: Alessandra dos Santos Silva, Anderson Rodrigo Souza, Vera Lucia Nocchi Cardim  
Institution: Beneficência Portuguesa de São Paulo

4:00-4:15 PM  
**Computer 10**

**e-poster 35**

**Intracranial hypertension and neuropsychomotor development in craniosynostosis - preliminary study**

Presenter: Anderson Rodrigo Souza  
Authors: Anderson Rodrigo Souza, Alessandra dos Santos Silva, Denise Gonçalves Cunha Coutinho, Vera Lucia Nocchi Cardim  
Institution: Beneficência Portuguesa de São Paulo

4:00-4:15 PM  
**Computer 11**

**e-poster 36**

**Dynamic osteotomies in mature skulls**

Presenter: Georgia Maria de Carvalho Perez  
Authors: Vera Lucia Nocchi Cardim, Georgia Maria de Carvalho Perez, Alessandra dos Santos Silva, Anderson Rodrigo Souza  
Institution: Beneficência Portuguesa de São Paulo

4:00-4:15 PM  
**Computer 12**

**e-poster 37**

**Assessment of Cranioplasty and Flap Techniques Utilized for Composite Scalp/Skull Reconstruction**

Presenter: James D Vargo MD  
Authors: James D Vargo MD, Wojciech Przylecki MD, Paul Camarata MD, Brian T Andrews MD  
Institution: University of Kansas Medical Center

4:00-4:15 PM  
**Computer 13**

**e-poster 38**

**The role of the Craniofacial orthodontists for treatment of patients with cleft lip and palate**

Presenter: Suguru Kondo  
Authors: Suguru Kondo, Yoshimi Sano, Takayuki Okumoto  
Institution: Department of Orthodontics and Pedodontics, Plastic and Reconstructive Surgery

4:15-4:30 PM  
**Computer 1**

**e-poster 39**

**Postoperative evaluation of sagittal synostosis after spring-assisted surgery using 3D imaging**

Presenter: Ruggero Bevilaqua  
Authors: Ruggero Bevilaqua, Lars Kolby, Peter Tarnow, Giovanni Maltese  
Institution: Plastic Surgery Department, Sahlgrenska University Hospital, Gteborg, Sweden

4:15-4:30 PM  
**Computer 2**

**e-poster 40**

**A Breakthrough in Maxillary Lefort II Fracture Reconstruction: A Case Series of Open Reduction and Internal Fixation Combined with Augmentation Rhinoplasty Using Autologous Materials**

Presenter: Indri Lakshmi Putri  
Authors: Indri Lakshmi Putri, Wilma Agustina  
Institution: Department of Plastic Reconstructive and Aesthetic Surgery,  
Airlangga University

4:15-4:30 PM  
**Computer 3**

**e-poster 41**

**Aninterim report of five trigonocephaly cases after eight years followup from cranioplasty**

Presenter: Yuuki Uchida  
Authors: Yuuki Uchida, Atsuomi Saiga, Nobuyuki Mitsukawa, Kaneshige Satoh  
Institution: St. Mary's Hospital

4:15-4:30 PM  
**Computer 4**

**e-poster 42**

**Transfusion Trends in Fronto-Orbital Advancement - An Analysis of 700 cases in the UK National Craniofacial Service**

Presenter: Mr Chris Parks  
Authors: Mr Christian Duncan, Mr Chris Parks, Dr Ed Carver, Dr Russell Evans , Dr David De Beers, Dr M.Stanley  
Institution: Alder Hey Childrens Hospital NHS Foundation Trust

4:15-4:30 PM  
**Computer 5**

**e-poster 43**

**Craniofacial Necrotizing fasciitis in an infant**

Presenter: Malagón Hidalgo Héctor Omar  
Authors: Perez Dosal Marcia Rosario, Malagón Hidalgo Héctor Omar , García Cano Eugenio, Reynoso López Rocío Evangelina, González Chapa Diego Raúl  
Institution: Instituto Nacional de Pediatría

4:15-4:30 PM  
**Computer 6**

**e-poster 44**

**A Five Step Simplification of the Fisher Anatomical Subunit Cleft Lip Repair**

Presenter: Anna Carlson, MD  
Authors: Anna Carlson, MD, Kate Burette, MD, Jeffrey Marcus, MD  
Institution: Duke University Hospital Division of Plastic Surgery

4:15-4:30 PM  
**Computer 7**

**e-poster 45**

**Navigation-Assisted Endoscopic Orbital Decompression for refractory Graves' orbitopathy**

Presenter: Hu, Ching hsuan  
Authors: Hu, Ching hsuan, Chia-Hsuan Tsai,, Yu hsuan Hsieh, Chun-Hao Pan, Chein-Tzung Chen  
Institution: Chang Gung Memorial hospital

4:15-4:30 PM  
**Computer 8**

**e-poster 46**

**The Rare Association of Cleft Lip/Palate and Wilms Tumor**

Presenter: Alison Kaye, MD  
Authors: Elizabeth Theng, Alison Kaye, MD  
Institution: University of Missouri-Kansas City School of Medicine

4:15-4:30 PM  
Computer 9

**e-poster 47**

**Correlation of soft-tissue to bony landmarks during Le Fort I orthognathic surgery**

Presenter: Derek Steinbacher, MD  
Authors: Cynthia Tsay, Derek Steinbacher, MD  
Institution: Yale School of Medicine

4:15-4:30 PM  
Computer 10

**e-poster 48**

**Wolf-Hirschhorn Syndrome with Cleft Lip/Palate: Patient Presentation and Management**

Presenter: Shikhar Tomur  
Authors: Shikhar Tomur, Alison Kaye  
Institution: University of Missouri-Kansas City School of Medicine

4:15-4:30 PM  
Computer 11

**e-poster 49**

**The association between surgical complications and the POSSUM score in head and neck reconstruction**

Presenter: Yohjiroh Makino  
Authors: Yohjiroh Makino, Katsuhiko Ishida, Keita Kishi, Takeshi Miyawaki  
Institution: The Jikei University school of Medicine

4:15-4:30 PM  
Computer 12

**e-poster 50**

**A Craniometric Analysis of Cranial Base and Cranial Vault Differences in Patients with Metopic Craniosynostosis**

Presenter: Sanjay Naran  
Authors: Sanjay Naran, Danial Mazzaferro, Ari Wes, Arastoo Vossough, Scott Bartlett, Jesse Taylor  
Institution: University of Pennsylvania

9:30-9:45 AM  
**Computer 1**

**e-poster 51**

**More Than Meets The Eye: The Effect of Intercanthal Distance on Perception of Beauty and Personality**

Presenter: Sanjay Naran

Authors: Sanjay Naran, Ari Wes, Daniel Mazzaferro, Scott Bartlett, Jesse Taylor

Institution: University of Pennsylvania

9:30-9:45 AM  
**Computer 2**

**e-poster 52**

**Minor Suture Fusion in Syndromic Craniosynostosis**

Presenter: Christopher Runyan

Authors: Christopher Runyan, Wen Xu, David Staffenberg, Roberto Flores, Jesse Taylor

Institution: Wake Forest Baptist Medical Center

9:30-9:45 AM  
**Computer 3**

**e-poster 53**

**Speech Outcomes Following Midface Distraction in Syndromic Craniosynostosis**

Presenter: James Sun

Authors: James Sun, Ari M Wes, Sanjay Naran, Daniel Mazzaferro, Scott P Bartlett, Jesse A Taylor

Institution: Childrens Hospital of Philadelphia

9:30-9:45 AM  
**Computer 4**

**e-poster 54**

**Cleft Repair in Pierre Robin Sequence Following Mandibular Distraction Osteogenesis**

Presenter: Matthew B. Lorenzo, BA

Authors: Matthew B. Lorenzo, BA, Ari M. Wes, BA, Daniel Mazzaferro, MBA, Sanjay Naran, MD,,Scott P. Bartlett, MD, Jesse A. Taylor, MD

Institution: The Childrens Hospital of Philadelphia

9:30-9:45 AM  
**Computer 5**

**e-poster 55**

**Nasal Root Deviation in Unicoronal Craniosynostosis: A Craniometric Analysis of Early and Late Postoperative Outcomes**

Presenter: Ari Wes

Authors: Jason Wink,Ari Wes, Dan Mazzaferro, Sanjay Naran, Scott Bartlett, Jesse Taylor

Institution: Children's Hospital of Philadelphia

9:30-9:45 AM  
**Computer 6**

**e-poster 56**

**Craniosynostosis Surgery: Does Hospital Case-Volume Impact Outcomes or Cost?**

Presenter: Rachel Mckenna

Authors: Rachel Mckenna, Ari Wes, Dan Mazzaferro, Sanjay Naran, Scott Bartlett,

Jesse Taylor

Institution: Children's Hospital of Philadelphia

9:30-9:45 AM  
**Computer 7**

**e-poster 57**

**Analysis of Pracice Settings for Craniofacial Surgery Fellowship Graduates in North America**

Presenter: Christopher Runyan

Authors: Christopher Runyan, Jason Silvestre, Jesse Taylor

Institution: Wake Forest Baptist Medical Center

9:30-9:45 AM  
**Computer 8**

**e-poster 58**

**A craniometric analysis of the posterior cranial base after posterior vault distraction**

Presenter: Matthew B. Lorenzo  
 Authors: Matthew B. Lorenzo, Netanja ter Maaten, Daniel M. Mazzaferro,  
 Sanjay Naran, Scott P. Bartlett, Jesse A. Taylor  
 Institution: The Childrens Hospital of Philadelphia

9:30-9:45 AM  
**Computer 9**

**e-poster 59**

**Contribution of the periosteum mechanical properties in the mandibular distraction osteogenesis**

Presenter: Kadlub Natacha  
 Authors: Debelmas Alexandre, Picard Arnaud, Diner Patrick Antoine,  
 Nedjar Boumediene, Kadlub Natacha, Boisson Jean  
 Institution: APHP

9:30-9:45 AM  
**Computer 10**

**e-poster 60**

**Le Fort 3 in Pycnodysostosis: particularities of management in two cases**

Presenter: Erick Arnaud  
 Authors: Erick Arnaud, Hossein Khonsari, Rodrigo Kouji, Sam Haber, Eva Galliani,  
 Arnaud Picard  
 Institution: Hospital Necker craniofacial unit

9:30-9:45 AM  
**Computer 11**

**e-poster 61**

**Orthognathic surgery and rhinoplasty: Should they be simultaneous or staged?**

Presenter: Alexander Sun  
 Authors: Alexander Sun, Derek Steinbacher  
 Institution: Yale School of Medicine

9:30-9:45 AM  
**Computer 12**

**e-poster 62**

**Facial bipartition under the age of two for severe craniofacial clefting**

Presenter: Bryant A Toth, M.D.  
 Authors: Bryant A Toth, M.D.  
 Institution: Ucsf-Benioff Childrens Hospital, Oakland, California

9:30-9:45 AM  
**Computer 13**

**e-poster 63**

**Minimal Invasive Le Fort III Osteotomy**

Presenter: Herman Jr VERCRUYSSÉ  
 Authors: Herman Jr Vercruysse, Ramon Sieira-Gil, Alfonso Navarro,  
 Eloy Garcia-Diez  
 Institution: Department of Pediatric Surgery, Hospital Sant Joan de Déu,  
 Barcelona, Spain

9:45-10:00 AM  
**Computer 1**

**e-poster 64**

**Results of spring-assisted cranioplasty in patients with scaphocephaly.**

Presenter: Leonid Satanin  
 Authors: Leonid Satanin, Ivan Teterin, Andrey Evteev, Alexander Ivanov,  
 Alexander Sakharov, Vitaly Roginsky, Natalia Lemeneva  
 Institution: Moscow Burdenko Neurosurgery Institute, Russia

- 9:45-10:00 AM  
**Computer 2**
- e-poster 65**  
**Vertebral anomalies in craniofacial microsomia: systematic review and large multicenter cohort study**  
Presenter: Maarten Koudstaal  
Authors: Maarten Koudstaal, Ruben Renkema, Linda Caron, David Dunaway, Chris Forrest, Bonnie Padwa  
Institution: Erasmus MC
- 9:45-10:00 AM  
**Computer 3**
- e-poster 66**  
**Comparison of Cognitive Developmental Outcomes in Late Presentation Metopic Craniosynostosis Repair**  
Presenter: Stefani C Fontana  
Authors: Stefani C Fontana, Skylar Bellinger, Debora B Daniels, Paul J Camarata, Brian T Andrews  
Institution: University of Kansas Medical Center, Department of Plastic Surgery
- 9:45-10:00 AM  
**Computer 4**
- e-poster 67**  
**Role of computed tomography before and after nonsyndromic craniosynostosis surgery : a systematic review.**  
Presenter: Nayif Alnaif  
Authors: Nayif Alnaif, Alamri, Abdulrahman, Zhou, Mingsha, Galli, Rafeal, Gilardino, Mirko  
Institution: McGill University
- 9:45-10:00 AM  
**Computer 5**
- e-poster 68**  
**Craniometaphyseal Dysplasia**  
Presenter: Tatiana Palomino Consuegra  
Authors: Tatiana Palomino Consuegra, Rolando Prada Madrid, Diana Marcela Díaz López, Diana Carolina Gómez Prada  
Institution: Hospital Infantil Universitario de San José, Bogotá, Colombia
- 9:45-10:00 AM  
**Computer 6**
- e-poster 69**  
**Changes in Skull Dymorphology with Age in Unilateral Coronal Synostosis**  
Presenter: Kirun Baweja, BS  
Authors: Kirun Baweja, BS, Alexander H. Sun, BS, Rajendra Sawh-Martinez, MD, John A. Persing, MD  
Institution: Yale School of Medicine
- 9:45-10:00 AM  
**Computer 7**
- e-poster 70**  
**The changing indication for correction of metopic synostosis: the Rotterdam experience.**  
Presenter: Hansje Bredero-Boelhouwer  
Authors: Martijn Cornelissen, Hansje Bredero-Boelhouwer, Irene Mathijssen, Sarah Versnel  
Institution: Erasmus University Medical Center, Rotterdam, the Netherlands
- 9:45-10:00 AM  
**Computer 8**
- e-poster 71**  
**Engineering novel hydrogel adhesives for cranioplasty procedures**  
Presenter: John G Meara  
Authors: Ehsan Shirzaei Sani, Ehsan Shirzaei Sani, Seyed Hossein Bassir, Roberto Portillo Lara, John G Meara, Giuseppe Intini, Nasim Annabi  
Institution: Harvard School of Dental Medicine

9:45-10:00 AM  
Computer 9

**e-poster 72**

**Progress in automated intracranial volume quantification from 3D Photography**

Presenter: Antonio R. Porras

Authors: Liyun Tu, Antonio R. Porras, Deki Tsering, Robert Keating, Albert Oh, Marius George Linguraru, Scott R. Ensel, Beatriz Paniagua, Andinet Enquobahire, Gary F. Rogers

Institution: The Sheikh Zayed Institute for Pediatric Surgical Innovation, Childrens National

9:45-10:00 AM  
Computer 10

**e-poster 73**

**Computer Simulations for Prediction of Sagittal Spring Cranioplasty**

Presenter: Alessandro Borghi

Authors: Alessandro Borghi, Naiara Rodriguez Florez, Gregory James, Silvia Schievano, David Dunaway, Owase Jeelani

Institution: UCL GOS Institute of Child Health and Great Ormond Street Hospital

9:45-10:00 AM  
Computer 11

**e-poster 74**

**Understanding Patients Perspectives of Barriers to Accessing Care**

Presenter: Meghan McCullough, MD

Authors: Meghan McCullough, MD, Allyn Ausländer, MPH, Caroline Yao, MS, MD, Jordan Swanson, MD, William P Magee III, DDS, MD

Institution: University of Southern California

9:45-10:00 AM  
Computer 12

**e-poster 75**

**The International Family Study: A Global Collaboration Advancing Genetic and Epidemiological Research**

Presenter: Allyn Ausländer, MPH

Authors: Allyn Ausländer, MPH, Freddy Brindopke, Stephanie Ly, MPH, Pedro Sanchez, MD, Jane Figueiredo, MD, William P. Magee III, DDS, MD

Institution: University of Southern California

10:00-10:15 AM  
**Computer 1**

**e-poster 76**

**Evaluation of Bilateral Cleft Lip Patients Using Anthropometry in a Multicultural Setting**

Presenter: William P Magee III, DDS, MD  
 Authors: William P Magee III, DDS, MD, Michelle Carriere, MD, Caroline Yao, MS, MD, Meghan McCullough, MD, Allyn Ausländer, MPH  
 Institution: University of Southern California

10:00-10:15 AM  
**Computer 2  
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~~**e-poster 77**~~

~~**Refinements in secondary cleft lip and nose reconstruction: the simultaneous use of multiple grafts efficiently restores normal anatomical features reducing the reoperation rate**~~

~~Presenter: Francesco Gargano  
 Authors: Francesco Gargano, Silvio Podda  
 Institution: St Josephs Hospital~~

10:00-10:15 AM  
**Computer 3**

**e-poster 78**

**Limited evidence in the literature for mandibular catch-up growth in Pierre Robin Sequence**

Presenter: Chad A Purnell  
 Authors: Chad A Purnell, Lindsay E Janes, Julian L Klosowiak, Arun K Gosain, Elbert E. Vaca  
 Institution: Lurie Childrens Hospital of Northwestern Feinberg School of Medicine

10:00-10:15 AM  
**Computer 4**

**e-poster 79**

**Modified Le Fort III Osteotomy - Minimal Incisions**

Presenter: Hospital Infantil  
 Authors: Hospital Infantil, Jose Rolando Prada Madrid  
 Institution: Hospital Infantil Universitario de San Jose

10:00-10:15 AM  
**Computer 5**

**e-poster 80**

**Analysis of Acute Adverse Postoperative Outcomes after Craniostyosis Surgery: Identifying Predictors of ICU care**

Presenter: Jonathan Lee  
 Authors: Jonathan Lee, Shirley M Dong, Jonathan Y Lee, Mandeep Tamber, Joseph E Losee, Jesse A Goldstein  
 Institution: University of Pittsburgh Medical Center

10:00-10:15 AM  
**Computer 6**

**e-poster 81**

**Optic Nerve Sheath Diameter measured by MR imaging and Computed Tomography in Craniostyosis**

Presenter: Mostafa Haredy  
 Authors: Mostafa Haredy, Giulio Zuccoli, Mandeep Tamber, Ken Kanwal Nischal, Jesse Goldstein  
 Institution: Children Hospital of Pittsburgh

10:00-10:15 AM  
**Computer 7**

**e-poster 82**

**Outcomes in Craniofacial Surgery - Making the intangible quantifiable and comparable**

Presenter: Justine O'Hara  
 Authors: Justine O'Hara, Monterege, S, Chua, D, Rooney, N, Dunaway, D  
 Institution: Great Ormond Street Hospital for Sick Children

- 10:00-10:15 AM  
**Computer 8**
- e-poster 83**  
**Aesthetic Refinements in Patients with Hemi-facial Asymmetry**  
Presenter: Juan Martin Chavanne  
Authors: Juan Martin Chavanne, Diego Steinberg , Cristian Schauvinhold,  
Institution: WCF Bs.As Craniofacial Center Austral University Hospital
- 10:00-10:15 AM  
**Computer 9**
- e-poster 84**  
**Platelet Rich Plasma Enhance the Angiogenesis of Adipose-Derived Stem Cells in Ischemic Hind Limb Model**  
Presenter: Chia-Fang, Chen  
Authors: Chia-Fang, Chen, Han-Tsang, Liao  
Institution: Dept of Plastic & Reconstructive Surgery, Chang Gung Memorial Hospital
- 10:00-10:15 AM  
**Computer 10**
- e-poster 85**  
**3D Printed Bioactive Ceramic Scaffold Osteoconduction Across Critical-Sized Mandibular Defects**  
Presenter: Christopher D. Lopez  
Authors: Christopher D. Lopez, Lukasz Witek, MSci, PhD, J. Rodrigo Diaz-Siso, MD, Roberto L. Flores, MD, Eduardo D. Rodriguez, MD DDS, Paulo G. Coelho, DDS PhD  
Institution: Icahn School of Medicine at Mount Sinai, New York NY
- 10:00-10:15 AM  
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- e-poster 86**  
**Uncertainties in modelling soft tissue prediction in orthognathic surgery**  
Presenter: Paul Knoops  
Authors: Paul Knoops, Alessandro Borghi, Federica Ruggerio, Alberto Bianchi, Silvia Schievano, David Dunaway  
Institution: UCL GOS Institute of Child Health and Great Ormond Street Hospital for Children
- 10:00-10:15 AM  
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- e-poster 87**  
**Temporoparietal fascial flap for infected temporoccipital cerebrospinal fluid fistulae reconstruction**  
Presenter: Enrique Olivares  
Authors: Enrique Olivares, Jorge Bonastre , Carlos Corrales , Beatriz Gonzalez-Meli , Javier Enriquez-de-Salamanca  
Institution: Universidad Europea and Hospital Universitario Nino Jesus
- 10:00-10:15 AM  
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- e-poster 88**  
**Mixed Dentition Cleft/Craniofacial Patients: Incidental Head and Neck Findings on Cone Beam CT**  
Presenter: Wendy Chen  
Authors: Giancarlo Santos, Wendy Chen, Joici Job, Joseph E Losee, Barton Branstetter, Lindsay A Schuster  
Institution: Childrens Hospital of Pittsburgh
- 10:15-10:30 AM  
**Computer 1**
- e-poster 89**  
**Spring use in Craniofacial Surgery - Indications and Contraindications**  
Presenter: Noor Jeelani  
Authors: Noor Jeelani, R Hayward, G James, I Rather, J OHara, J Ong, D Dunaway  
Institution: GOSH UCL

- 10:15-10:30 AM  
**Computer 2**
- e-poster 90**  
**Segmental box osteotomy with internal orbital reconstruction for sphenoid wing absence associated globe malposition**  
Presenter: Edward H Davidson MA (Cantab) MBBS  
Authors: Edward H Davidson MA (Cantab) MBBS, Michael P Grant MD PhD, Anand R Kumar MD  
Institution: Montefiore Medical Center/Albert Einstein College of Medicine
- 10:15-10:30 AM  
**Computer 3**
- e-poster 91**  
**Virtual Custom Helmet Design for Sagittal Strip Craniectomy**  
Presenter: Christopher Derderian  
Authors: Christopher Derderian, Pang-Yun Chou, Christopher Warne, Suyue M Zang, Alex A Kane, Rami Hallac  
Institution: UT Southwestern Medical Center
- 10:15-10:30 AM  
**Computer 4**
- e-poster 92**  
**Analysis of prognostic and risk factors for mortality of facial bone fractures**  
Presenter: Pofang Wang  
Authors: Pofang Wang, Hsin-Yi Wu, Han-Tsung Liao  
Institution: Linkou Chang Gung Memorial Hospital
- 10:15-10:30 AM  
**Computer 5**
- e-poster 93**  
**Validating Outcome Metrics: Accuracy of the VECTRA H1 Portable 3D Photo System for Facial Imaging Applications**  
Presenter: Seth M. Weinberg  
Authors: Liliana Camison, Michael R. Bykowski, Wei Wei Lee, Jesse A. Goldstein, Seth M. Weinberg, Joseph E. Losee  
Institution: University of Pittsburgh Medical Center
- 10:15-10:30 AM  
**Computer 6**
- e-poster 94**  
**Le Fort 1 Distraction Osteogenesis in Cleft Patients Using an Adaptable Device and Virtual Planning**  
Presenter: Sean M. Hill, MD  
Authors: Sarah A. Frommer, MD/PhD, Raymond J Harshbarger, MD, Patrick K. Kelley, MD, Adriana C. Da Silveira, DDS, MS, PhD, Sean M. Hill, MD  
Institution: Dell Childrens Medical Center
- 10:15-10:30 AM  
**Computer 7**
- e-poster 95**  
**To Admit or Not to Admit - That is the Cleft Lip Question**  
Presenter: Artur Fahradyan  
Authors: Artur Fahradyan, Izabela Galdyn, MD, Beina Azadgoli, BS, Mark M. Urata, MD, DDS, Stacey H. Francis, MD  
Institution: Childrens Hospital Los Angeles
- 10:15-10:30 AM  
**Computer 8**
- e-poster 96**  
**Ruptured Internal Maxillary Artery Pseudoaneurysm Following Le Fort I Osteotomy: Case Report, Systematic Literature Review, and Evidence-Based Guidelines**  
Presenter: Catey Garland  
Authors: Michael Bykowski, Amber Hill, William Tobler, Catey Garland, Joseph E Losee, Jesse A Goldstein  
Institution: Childrens Hospital of Pittsburgh

10:15-10:30 AM  
**Computer 9**

**e-poster 97**

**A Single Lab Test to Aid Pierre Robin Sequence Severity Diagnosis**

Presenter: Artur Fahradyan  
 Authors: Artur Fahradyan, Beina Azadgoli, BS, Mark M. Urata, MD, DDS,  
 Stacey H. Francis, MD  
 Institution: Childrens Hospital Los Angeles

10:15-10:30 AM  
**Computer 10**

**e-poster 98**

**Differences in Infraorbital Foramen Position in Unilateral Cleft Lip and Palate**

Presenter: Shikhar Tomur  
 Authors: Shikhar Tomur, Alison Kaye  
 Institution: University of Missouri-Kansas City School of Medicine

10:15-10:30 AM  
**Computer 11**

**e-poster 99**

**Spring-assisted cranioplasty for sagittal craniosynostosis: a subtype analysis**

Presenter: Jungwon Genevieve Park  
 Authors: Christopher Runyan, Jungwon Genevieve Park, Christopher Michael  
 Runyan, Kyle Gabrick, Edreca Allison Thompson, Daniel Couture,  
 Lisa Renee David  
 Institution: Wake Forest

10:15-10:30 AM  
**Computer 12**

**e-poster 125**

**An Analysis of 53 Craniofacial Center Websites: Craniosynostosis Families are Being Given Inaccurate, Vague, and Inconsistent Information**

Presenter: **Jeffrey Goldstein**  
 Authors: Jeffrey A. Goldstein MD, Luke Boone MD, Vivian Buchanan PA-C,  
 Michael Lypka DMD/MD, Amanda Johnson APRN  
 Institution: Childrens' Mercy Hospital Kansas City, Univ. of Missouri-KC

4:00-4:15 PM  
**Computer1**

**e-poster 100**

**Craniofacial Surgical Planning with Augmentation Reality: Accuracy of Linear 3D Cephalometric Measurements on 3D Holograms**

Presenter: Kihyun Cho, MD, MSc  
 Authors: Kihyun Cho, MD, MSc, Jeff Yanof, PhD, Graham S Schwarz, MD, FACS,  
 Karl West, MS, Jennifer McBride, PhD, Francis A. Papay, MD  
 Institution: Plastic Surgery, Cleveland Clinic, Cleveland, Ohio, USA

4:00-4:15 PM  
**Computer 2**

**e-poster 101**

**Strategies for Immediate Reconstruction of Disfiguring High-flow Vascular Malformations of the Lips**

Presenter: Dov Charles Goldenberg  
 Authors: Dov Charles Goldenberg, Esther Choi, Vania Kharmandayan, Tatiana Moura,  
 Rolf Gemperli  
 Institution: Division of Plastic Surgery - Hospital das Clinicas, University of  
 Sao Paulo Medical

4:00-4:15 PM  
**Computer 3**

**e-poster 102**

**Median and oblique facial clefts:a series of 13 cases**

Presenter: Takanori Miyajima  
 Authors: Takanori Miyajima, Takayuki Okumoto, Yoshikazu Inoue,  
 Institution: Fujita Health university

4:00-4:15 PM  
Computer 4

**e-poster 103**

**Image Guided Navigation in Craniofacial Surgery: A Systematic Review and Grading of the Literature**

Presenter: Brad Gandolfi

Authors: Brad Gandolfi, Meaghan L Barr, Michael R DeLong, MD, Neha Datta, MD, Thomas D Willson, MD, Reza Jarrahy, MD

Institution: UCLA Division of Craniofacial Surgery

4:00-4:15 PM  
Computer 5

**e-poster 104**

**Peptide Amphiphile Nanofibers with BMP-2 Promote Bone Regeneration with Attenuated Inflammation**

Presenter: Reena Bakshi

Authors: Reena Bakshi, Akishige Hokugo, Mark McClendon, Samuel Stupp, Reza Jarrahy

Institution: University of California, Los Angeles

4:00-4:15 PM  
Computer 6

**e-poster 105**

**The Importance of Using a Comprehensive Multidisciplinary Cleft Registry to Record a Complete and Detail Patient Characteristics**

Presenter: Gadia Ayundya

Authors: Prasetyanugraheni Kreshanti, Gadia Ayundya

Institution: Plastic Surgery Div, Cleft Craniofacial Center, Cipto Mangunkusumo Hospital

4:00-4:15 PM  
Computer 7

**e-poster 106**

**Posterior Cranial Distraction Osteogenesis Including the Foramen Magnum: A Comparative Analysis**

Presenter: Sean M. Hill, MD

Authors: Sarah Frommer, Raymond J Harshbarger, MD, Sean M. Hill, MD, Patrick K. Kelley, MD, Timothy M., George, MD

Institution: Dell Childrens Medical Center

4:00-4:15 PM  
Computer 8

**e-poster 107**

**Safety Outcomes after Endoscopic versus Open Repair of Metopic Craniosynostosis**

Presenter: Laura A. Monson, MD

Authors: Tara L. Braun, BS, Bradley S. Eisemann, MD, Shola Olorunnipa, MD, Edward P. Buchanan, MD, David Y. Khechoyan, MD, Robert C. Dauser, MD, Sandi K. Lam, MD, Laura A. Monson, MD

Institution: Baylor College of Medicine

4:00-4:15 PM  
Computer 9

**e-poster 108**

**Outcomes in Furlow Palatoplasty for Secondary Speech Surgery**

Presenter: Laura A. Monson, MD

Authors: Tara L. Braun, BS, Edward P. Buchanan, MD, David Y. Khechoyan, MD, Kristina D. Wilson, PhD, SLP, Ellen E. Moore, MA, SLP, Cristina Hernandez, RN, Laura A. Monson, MD

Institution: Baylor College of Medicine

4:00-4:15 PM  
Computer 10

**e-poster 109**

**Impaired EEG-SEP finding in the affected hemisphere in patients with posterior plagiocephaly**

Presenter: Maiju Härmä

Authors: Maiju Härmä, Leena Lauronen, Junnu Leikola, Jyri Hukki, Anne Saarikko

Institution: Department of plastic surgery, Helsinki University Hospital and University of Helsinki

4:00-4:15 PM  
Computer 11

**e-poster 110**

**Molecular Mechanisms of Craniosynostosis**

Presenter: Derek Steinbacher

Authors: V. P. Eswarakumar, Miles Pfaff, Derek Steinbacher,

Institution: Yale School of Medicine

4:00-4:15 PM  
Computer 12

**e-poster 111**

**Dipyridamole-Coated 3D-Printed Bioactive Ceramic Scaffolds Regenerate Alveolar Cleft Defects: A Pilot Study**

Presenter: Christopher D. Lopez BA

Authors: Christopher D. Lopez BA, Jonathan M. Bekisz BA, Lukasz Witek, MSci PhD, Roberto L. Flores MD, Andrea Torroni MD PhD, Paulo G. Coelho DDS PhD

Institution: Icahn School of Medicine at Mount Sinai, New York NY

4:00-4:15 PM  
Computer 13

**e-poster 112**

**Long Term follow-up of the Surgical Hypercorrection Technique for Trigenocephaly**

Presenter: Katelyn Bennett

Authors: Katelyn Bennett, Fan Liang, Kavitha Ranganathan, Karin Murasko, Christian Vercler, Steven Buchman

Institution: University of Michigan

4:15-4:30 PM  
Computer 1

**e-poster 113**

**Quantification of Aesthetic Changes to the Temporal Region Through Three-dimensional Volumetric Photo Analysis**

Presenter: Christian Vercler

Authors: Christian Vercler, Russell Ettinger, Riaz Nabi, Fan Liang, Aditya Pandey, Steven Buchman

Institution: University of Michigan

4:15-4:30 PM  
Computer 2

**e-poster 114**

**Neonatal Mandibular Distraction Osteogenesis Reduces Cleft Palate Width and Lengthens Soft Palate, Influencing Palatoplasty in Patients With Pierre Robin Sequence**

Presenter: Marcus Collares

Authors: Marcus Collares, Daniele W Duarte, Davi S Sobral, Ciro P Portinho, Gustavo J Faller, Mariana M Fraga

Institution: University of Rio Grande do Sul - Brazil

4:15-4:30 PM  
Computer 3

**e-poster 115**

**Median Cleft Lip - Surgical Management Protocol Based on 18 Operated Cases**

Presenter: Jorge Morán

Authors: Marcus Collares, Jorge Morán, Mariana M Fraga, Ciro P Portinho, João Maximiliano Martins, Jorge Hoyos

Institution: University of Rio Grande do Sul - Brazil

4:15-4:30 PM  
**Computer 4**

**e-poster 116**

**Scaphocephaly Part III: Cranial Perimeter and Intracranial Hypertension in Sagittal Synostosis with and without Secondary Coronal Synostosis**

Presenter: Joseph Michienzi  
 Authors: Joseph Michienzi, Eric Arnaud, Federico Di Rocco, Dominique Renier, Daniel Marchac, Alexandre Marchac  
 Institution: Hopital Necker-Enfants Malades Paris, France

4:15-4:30 PM  
**Computer 5**

**e-poster 117**

**Diagnosis And Early Intervention Of Velofaring Insufficiency After Primary Palatoplasty In Patients Interdisciplinary Treated In Fisulab (Rehabilitation Center for children with cleft lip and palate, Bogotá Colombia).**

Presenter: Diana Marcela Diaz Lopez  
 Authors: Diana Marcela Diaz Lopez, Rolando Prada, Juan Carlos Zambrano, Pilar Echeverry  
 Institution: Fundación Universitaria De Ciencias De La Salud

4:15-4:30 PM  
**Computer 6**

**e-poster 118**

**Approaching Transfusion Free Surgery for Posterior Vault Reconstruction for Sagittal Synostosis**

Presenter: Jane Kugler  
 Authors: Jane Kugler, Amy Beethe, MD, Jason Miller, MD, Rachel Spitznagel, MD  
 Institution: Children's Hospital and Medical Center, and the University of Nebraska Medical

4:15-4:30 PM  
**Computer 7**

**e-poster 119**

**Distraction-induced TMJ Ankylosis: Comprehensive Management**

Presenter: Kevin Xiao  
 Authors: Michael Lypka, Kevin Xiao  
 Institution: Children's Mercy Hospital

4:15-4:30 PM  
**Computer 8**

**e-poster 120**

**Obstructive Sleep Apnea Treatment: Structural expansion of the upper airway.**

Presenter: Romulo Guerrero  
 Authors: Romulo Guerrero, Adriana Guerrero  
 Institution: Hospital Metropolitano de Quito

4:15-4:30 PM  
**Computer 9**

**e-poster 121**

**Refined Concepts to Improve Aesthetic Outcomes in Microtia Ear Reconstruction: Personal experiences based on 100 cases**

Presenter: Akihiko Oyama Md, Phd  
 Authors: Akihiko Oyama Md, Phd, Emi Funayama Md, Phd, Yuhei Yamamoto MD,PhD  
 Institution: Faculty of Medicine, Hokkaido University

4:15-4:30 PM  
**Computer 10**

**e-poster 122**

**Factors Associated with Unplanned Re-Operation in Pediatric Plastic Surgery**

Presenter: Dra. Renata Maricevich  
 Authors: Kevin T Jubbal, Dmitry Zavlin, Edward P Buchanan, Larry H Hollier, Jr Dra. Renata Maricevich  
 Institution: Loma Linda University

4:15-4:30 PM  
Computer 11

**e-poster 123**

**A 42 year experience with autogenous cranioplasty.**

Presenter: S Anthony Wolfe

Authors: S Anthony Wolfe

Institution: Chief, Division of Plastic Surgery Miami Children's Health System

4:15-4:30 PM  
Computer 12

**e-poster 124**

**Ex nihilo aliquid fit: Something is made where there is nothing**

Presenter: S Anthony Wolfe

Authors: S Anthony Wolfe

Institution: Chief, Division of Plastic Surgery Miami Children's Health System

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