

Final program



ISCFS 2019

16-19 September

Paris, France

www.iscfs2019.com

18th Congress of International Society of **Craniofacial Surgery**

Follow us on:



#ISCFS2019



TABLE OF CONTENTS

WELCOME ADDRESS	5
COMMITTEES	6
SCIENTIFIC PROGRAMME	8
SCHEDULE AT A GLANCE	8
ISCFS PRE-SYMPOSIUM – MONDAY, SEPTEMBER 16	10
ISCFS CONGRESS – TUESDAY, SEPTEMBER 17.....	13
ISCFS CONGRESS – WEDNESDAY, SEPTEMBER 18	18
ISCFS CONGRESS – THURSDAY, SEPTEMBER 19	31
E-POSTERS	36
E-POSTERS FLOORPLAN	36
E-POSTERS – TUESDAY, SEPTEMBER 17	38
E-POSTERS – WEDNESDAY, SEPTEMBER 18	46
E-POSTERS – THURSDAY, SEPTEMBER 19	53
GENERAL & PRACTICAL INFORMATION	59
VENUE FLOORPLAN	61
SPONSORS & EXHIBITION	62
EXHIBITION FLOOR PLAN & LIST OF EXHIBITORS	62
EXHIBITORS DETAILS	63
MAIN SPONSORS	67



WELCOME MESSAGE

Dear ISCFS members, dear colleagues,

I have the pleasure to invite you to the XVIIIth meeting of the International Society of Craniofacial Surgery in Paris, September 16th-19th, 2019. More than 35 years ago, under the Presidency of Mr. Paul Tessier, our Society was founded, and 10 years later, St Tropez had the pleasure to host a successful meeting under the leadership of Daniel Marchac; today, we are proud to welcome our 2019 meeting in Paris, the birthplace of Craniofacial Surgery. Since my first participation as a resident in 1991, I have considered the ISCFS biennial scientific meeting as the most relevant forum in this field.

The format of the meeting will be scientifically dense, over a four days period, covering most aspects of craniofacial care, including the latest developments in craniosynostosis, craniofacial research in regenerative medicine, neurosurgical aspects related to reconstructive surgery, craniofacial clefts, comparison of distraction techniques for facial dysostoses, without forgetting microvascular reconstruction in craniofacial care including a facial transplantation panel.

The first day (preconference symposium) will include a comprehensive evaluation of the long – term outcomes, challenges, and multidisciplinary aspects of the monobloc frontofacial advancement procedure, which was revolutionized 20 years ago by the techniques of distraction.

Our conference venue is «Maison de la Chimie», located in Paris city center and surrounded by many commodities for our participants, from hotels, to restaurants and other facilities.

The compact programme from Monday to Thursday will comply with the latest rules of industry sponsoring, and we hope that you will be allowed some time to enjoy Paris or the surrounding area for a few days.

Thanks to your participation and contribution, I trust this event will be another landmark in the craniofacial records of our society, and that it will further allow ISCFS to maintain its leadership as the authoritative voice of the craniofacial community.

Yours truly



ERIC ARNAUD,
ISCFS 2017-2019 PRESIDENT

COMMITTEES

LOCAL ORGANISING COMMITTEE

ERIC ARNAUD
PATRICK DINER
SYRIL JAMES
HOSSEIN KHONSARI

GIOVANNA PATERNOSTER
ARNAUD PICARD
CATHERINE TOMAT

SCIENTIFIC COMMITTEE

ERIC ARNAUD
President
(Paris, France)

XIONGZHENG MU
Vice President
(China)

IRENE MATHIJSEN
Secretary-Treasurer
(Rotterdam, The Netherlands)

FERNANDO MOLINA
Past President, 2015
(Mexico City, Mexico)

JESSE TAYLOR
Council
(USA)

JUAN CARLOS RODRIGUEZ
Council
(Argentina)

PEDRO SANTIAGO
Council
(USA)

RICHARD HOPPER
Council
(USA)

STEPHEN DOVER
Council
(UK)

JAY JAYAMOHAN
Council
(UK)

SCOTT BARTLETT
(USA)

JAMES BRADLEY
(USA)



INTERNATIONAL SOCIETY OF CRANIOFACIAL SURGERY



SCIENTIFIC PROGRAMME

SCHEDULE AT A GLANCE

MONDAY 16TH SEPTEMBER | ISCFS PRE-SYMPOSIUM

MORNING	
AMPHITHEATER LAVOISIER	
08H00 09H25	INNOVATIVE CRANIOPLASTIES PANEL
09H25 10H30	ORTHODONTICS / ORTHOGNATHIC PANEL
10H30 11H00	Coffee break
11H05 13H02	PANEL LECTURES
13H03 14H05	Lunch

AFTERNOON	
AMPHITHEATER LAVOISIER	
14H08 15H59	MONOBLOC
16H00 16H30	Coffee break
16H35 19H00	MONOBLOC & NECKER EXPERIENCE OF MONOBLOC ABOUT 150 CASES
19H00 20H00	WELCOME COCKTAIL Open to all participants

TUESDAY 17TH SEPTEMBER | ISCFS CONGRESS

MORNING	
AMPHITHEATER LAVOISIER	
08H00 09H20	LECTURES
09H20 10H30	PANEL 1 - NEUROSURGERY
10H30 11H00	Coffee break
11H02 13H15	SESSION 1: NEUROSURGERY
13H15 14H13	Lunch & eposter presentations

AFTERNOON	
AMPHITHEATER LAVOISIER	
14H15 15H55	SESSION 2: POSTERIOR VAULT DISTRACTION
15H55 16H25	Coffee break
16H26 17H30	PANEL 2: ALLOTRANSPLANTATION
17H30 19H25	SESSION 3: FACIOCRANIOSYNOSTOSIS PART I
	INTERNATIONAL COURSE S.O.R.G. ACADEMY

WEDNESDAY 18TH SEPTEMBER | ISCFS CONGRESS

MORNING			
AMPHITHEATER LAVOISIER		ROOM 101	
08H00 10H25	SESSION 4A: GENERALITIES IN CRANIOSYNOSTOSIS – PART I	08H00 10H35	SESSION 4B: ORTHOGNATHIC / TREACHER-COLLINS
10H25 11H00	Coffee break	10H35 11H05	Coffee break
11H02 11H45	SESSION 5A: GENERALITIES IN CRANIOSYNOSTOSIS – PART II	11H06 11H40	SESSION 5B: TRAUMA FACE
11H46 12H55	SESSION 6A: CORONAL SYNOSTOSIS	11H42 13H04	SESSION 6B: HFM ROBIN - PART I
12H56 13H56	Lunch & eposter presentations	13H05 14H05	Lunch & eposter presentations
AFTERNOON			
AMPHITHEATER LAVOISIER		ROOM 101	
14H00 16H04	SESSION 7A: SAGITTAL SYNOSTOSIS	14H06 15H29	SESSION 7B: HFM ROBIN - PART II
		15H30 16H03	SESSION 8B: FACE RESEARCH - PART I
16H05 16H35	Coffee break	16H04 16H34	Coffee break
16H35 18H04	SESSION 8A: METOPIC SYNOSTOSIS	16H35 17H14	SESSION 9B: FACE RESEARCH - PART II
		17H15 18H15	SESSION 10B: FACE RECONSTRUCTION
18H05 19H20	SESSION 9A: CRANIOPLASTY	18H16 19H20	SESSION 11B: FACE MISCELLANEOUS
CONFERENCE DINNER Upon registration (limited number of seats)			

THURSDAY 19TH SEPTEMBER | ISCFS CONGRESS

MORNING	
AMPHITHEATER LAVOISIER	
07H00 08H30	BUSINESS MEETING (ROOM 101 - ISCFS members only)
08H35 10H30	SESSION 12: FACIOCRANIOSYNOSTOSIS PART II
10H30 11H00	Coffee break
11H05 12H10	SESSION 13: HYPERTELORISM / CRANIOFACIAL CLEFTS
12H12 13H00	LECTURES
13H00 14H00	Lunch & eposter presentations

AFTERNOON	
AMPHITHEATER LAVOISIER	
14H03 15H00	SESSION 14: FACIOCRANIOSYNOSTOSIS PART III
15H02 15H59	SESSION 15: PLANNING/IMAGING PART I
16H00 16H30	Coffee break
16H33 17H58	SESSION 16: PLANNING/IMAGING PART II
18H00 19H00	PANEL 3 - AESTHETIC AND COGNITIVE OUTCOMES: REOPERATIONS IN OPEN VS ENDOSCOPY PROCEDURES

ISCFS PRE-SYMPOSIUM

MONDAY, SEPTEMBER 16, 2019

08H00-08H05 | **PRESIDENT WELCOME**
Eric Arnaud (France)

08H05-09H25 | **INNOVATIVE CRANIOPLASTIES PANEL** AMPHITHEATER LAVOISIER
Chairs: Chad Gordon (United States), Michael Lim (United States)

- 08H06-08H13 | **SYM1.1 - INTRODUCTION TO MULTIDISCIPLINARY PANEL AND BURGEONING FIELD OF NEUROPLASTIC SURGERY**
Chad Gordon (United States)
- 08H13-08H20 | **SYM1.2 - PEDIATRIC CRANIOPLASTY AND CONSIDERATIONS FOR TEMPORAL DEFORMITIES**
Anand Kumar (United States)
- 08H21-08H28 | **SYM1.3 - SYM1.3 - ADULT CRANIOPLASTY AND OPTIMIZING OUTCOMES WITH CUSTOMIZED CRANIAL IMPLANTS**
Chad Gordon (United States)
- 08H28-08H35 | **SYM1.4 - SINGLE-STAGE CRANIOPLASTY RECONSTRUCTION FOR SKULL/BRAIN TUMORS USING CUSTOMIZED CRANIAL IMPLANTS**
Michael Lim (United States)
- 08H36-08H43 | **SYM1.5 - CUSTOMIZED CRANIAL IMPLANTS WITH EMBEDDED NEUROMODULATION DEVICES**
Stan Anderson (United States)
- 08H43-08H50 | **SYM1.6 - COMPUTER-ASSISTED/ROBOT-ASSISTED TECHNOLOGIES FOR CRANIAL IMPLANT MODIFICATION AND CRANIOPLASTY**
Mehran Armand (United States)
- 08H51-08h58 | **SYM1.7 - NON-SURGICAL SOLUTIONS FOR POST-CRANIOTOMY TEMPORAL DEFORMITIES**
Mary Sheu (United States)
- 08H59-09H24 | **DISCUSSION INTEGRATING A VIDEO FROM DR MANSON AND DR BREM**

09H25-10H30 | **ORTHOGNATIC/ORTHODONTICS PANEL** AMPHITHEATER LAVOISIER
Chairs: Pedro Santiago (United States), Catherine Tomat (France)

- 09H25-09H33 | **SYM2.1**
Alvaro Figueroa (United States)
- 09H33-09H41 | **SYM2.2**
Chris Laspos (Cyprus)
- 09H41-09H49 | **SYM2.3**
Mariana Sabás (Argentina)
- 09H49-09H57 | **SYM2.4**
Jong Woo Choi (Republic of Korea)
- 09H57-10H05 | **SYM2.5**
Catherine Lee (Singapore)
- 10H05-10H13 | **SYM2.6**
Pedro Santiago (United States)
- 10H13-10H30 | **DISCUSSION**

10H30-11H00 | **Coffee break**

11H05-13H02 |

SYMPOSIUM LECTURES AMPHITHEATER LAVOISIER*Chairs: Jim Bradley (United States), Fernando Molina (Mexico)*

- 11H05-11H22 | **SYM3 - THE HISTORY OF CRANIOFACIAL SURGERY IN JAPAN, WITH LONG TERM RESULTS** (10 min lecture + 7 min discussion)
Keisuke Imai (Japan)
- 11H23-11H42 | **SYM4 - THE SYNDROMIC ADOLESCENCE PATIENT WITH SEVERE SEQUELAE AFTER EARLY IN LIFE CF SURGERY: ALTERNATIVES OF TREATMENT** (12 min lecture + 7 min discussion)
Fernando Molina (Mexico)
- 11H43-12H02 | **SYM5 - THE NOSE IN ORBITAL HYPERTELORISM: REVIEW OF A 44-YEAR EXPERIENCE BY A SINGLE SURGEON** (12 min lecture + 7 min discussion)
S. Anthony Wolfe (United States)
- 12H03-12H22 | **SYM6 - MICROVASCULAR FREE TISSUE TRANSFER IN PEDIATRIC CRANIOFACIAL RECONSTRUCTION** (12 min lecture + 7 min discussion)
Frédéric Kolb (France)
- 12H23-12H42 | **SYSYM7 - CRANIOVERTEBRAL JUNCTION AND CHIARI IN FACIOCRANIOSYNOSTOSIS** (12 min lecture + 7 min discussion)
Giuseppe Cinalli (Italy)
- 12H43-13H02 | **SYM8 - WHERE ARE THEY NOW? FACT VERSUS BELIEF IN CRANIOFACIAL SURGERY** (12 min lecture + 7 min discussion)
Richard Hayward (United Kingdom), Barry Jones (United Kingdom)

13H03-14H05 |

Lunch

14H08-15h59 |

MONOBLOC AMPHITHEATER LAVOISIER*Chairs: Kenneth Salyer (United States), Giovanna Paternoster (Hop. Necker, Paris), David Dunaway (United Kingdom)*

- 14H08-14H18 | **SYM9.1 - INTRODUCTION TO MONOBLOC** (10 min lecture - no discussion)
Scott Bartlett (United States)
- 14H19-14H38 | **SYM9.2 - MONOBLOC: FROM TESSIER TO DISTRACTION** (12 min lecture + 7 min discussion)
S. Anthony Wolfe (United States)
- 14H39-14h58 | **SYM9.3 - IS THERE STILL A PLACE FOR THE «TRUE MONOBLOC»** (12 min lecture + 7 min discussion)
Fernando Molina (Mexico)
- 14h59-15H16 | **SYM9.4 - SIMULTANEOUS MONOBLOC AND MANDIBULAR DISTRACTION** (10 min lecture + 7 min discussion)
Irene Mathijssen (Netherlands)
- 15H17-15H34 | **SYM9.5 - BRAZILIAN EXPERIENCE FROM SOBRAPAR** (10 min lecture + 7 min discussion)
Cassio Raposo de Amaral (Brazil)
- 15H35-15h59 | **SYM9.6 - A REVIEW OF 139 CASES OF FRONTOFACIAL DISTRACTION IN SYNDROMIC CRANIOSYNOSTOSIS OVER 18 YEARS** (15 min lecture + 9 min discussion)
David James Dunaway (United Kingdom)

16H00-16H30 |

Coffee break

16H35-19h00 |

MONOBLOC AMPHITHEATER LAVOISIER

Chairs: David David (Australia), Scott Bartlett (United States), Irene Mathijssen (Netherlands)

16H36-16H53 | **SYM9.8 - COMPLICATIONS OF MONOBLOC** (10 min lecture + 7 min discussion)
Jim Bradley (United States)

NECKER EXPERIENCE OF MONOBLOC ABOUT 150 CASES

16H54-17H02 | **SYM9.9A- THE NECKER TECHNIQUE FOR MONOBLOC** (8 min lecture -no discussion)
Eric Arnaud (Hop Necker, Paris)

17H03-17H23 | **SYM9.9B - QUANTITATIVE FACIAL, ORBITAL AND OCCLUSAL ASSESSMENTS OF FRONTO-FACIAL MONOBLOC ADVANCEMENT WITH INTERNAL DISTRACTION IN FACIOCRANIOSYNOSTOSES** (12 min lecture + 8 min discussion)
Hossein Khonsari (Hop Necker, Paris)

17H24-17H33 | **SYM9.9C - COGNITIVE ASSESSMENT IN SCHOOL AGE CROUZON AND PFEIFFER AFTER EARLY FRONTO-FACIAL MONOBLOC** (5 min lecture + 4 min discussion)
Giovanna Paternoster (Hop Necker, Paris)

17H33-17H45 | **SYM9.9D - ICU PROCEDURES FOR MONOBLOC** (8 min lecture + 4 min discussion)
Philippe Meyer (Hop Necker, Paris)

17H46-17H56 | **SYM9.9E1 - AIRWAY ASSESSMENTS AFTER FRONTOFACIAL MONOBLOC ADVANCEMENT WITH DISTRACTION (FFMBA) : ABOUT 145 CASES IN FACIOCRANIOSYNOSTOTIC CHILDREN** (6 min lecture + 4 min discussion)
Eric Arnaud (Hop Necker, Paris)

17H56-18H05 | **SYM9.9E2 - SECONDARY LE FORT 3 AFTER MONOBLOC** (5min lecture + 4 min discussion)
Samer Haber (France)

18H06-18H18 | **SYM9.9E3 - COMPLICATIONS OF MONOBLOC** (8 min lecture + 4 min discussion)
Eric Arnaud (Hop Necker, Paris)

18H19-18H25 | **SYM9.9F - TRANSFACIAL EXTERNAL TRACTION AND INTERNAL DISTRACTION FOR YOUNG AND SEVERE FACIOCRANIOSYNOSTOSES: THE VERY EARLY MONOBLOC** (6 min lecture – no discussion)
Eric Arnaud (Hop Necker, Paris)

18H26-19H00 |

FINAL DISCUSSION

19H00-20H00 |

WELCOME COCKTAIL offered to all participant in the exhibition area

TUESDAY, SEPTEMBER 17, 2019

ISCFS CONGRESS – PROGRAMME DAY 1

08H00-09H20 | **LECTURES** AMPHITHEATER LAVOISIER

- 08H00-08H12 | **WELCOME WORD**
Eric Arnaud (France)
- 08H12-08H52 | **LEC1 - FERNANDO ORTIZ MONASTERIO LECTURE : OFFICERS, SURGEONS AND GENTLEMEN: A SURGICAL PERSPECTIVE ON THE WATERLOO 1815 CAMPAIGN**
Benoit Lengelé (Belgium)
- 08H53-09H02 | **LEC2 - DISTRACTION ODYSSEY IN PARIS: « LA PETITE HISTOIRE »**
Patrick Diner (Hop Necker, Paris)
- 09H03-09H06 | **MARCHAC AWARD 2017 RECIPIENT : PRADIP SHETYE (USA) PRESENTED BY FERNANDO MOLINA (PAST-PRESIDENT, MEXICO) AND GIVEN BY ALEXANDRE MARCHAC (FRANCE)**
- 09H07-09H17 | **LEC3 – KEYNOTE LECTURE: DRUG DESIGN FOR TREATING FGFR3 MUTATION**
Laurence Legeai-Mallet (Genetic Institute Imagine, Paris)

09H20-10H30 | **PANEL 1 - NEUROSURGERY** AMPHITHEATER LAVOISIER *Chairs: John Persing (United States), Giovanna Paternoster (Hop Necker, Paris)*

- 09H20-09H50 | **PAN1.1 - NEUROSURGICAL MISTAKES TO AVOID IN CF SURGERY (PART I: VAULT STRIPS)**
(20 min lecture + 10 min discussion)
Jim Goodrich (United States)
- 09H52-10H12 | **PAN1.2 - NEUROSURGICAL MISTAKES TO AVOID IN CF SURGERY (PART II: CEREBRO-SPINAL FLUID MANAGEMENT)** (15 min lecture + 5 min discussion)
Christian Sainte-Rose (Paris and Fort-de-France)
- 10H13-10H30 | **PAN1.3 - CHIARI MALFORMATION IN COMPLEX CRANIOSYNOSTOSIS AND SYRINGOMYELIA: EPIDEMIOLOGY, MANAGEMENT AND SURGICAL ATTITUDE (PART 3)**
(10 min lecture + 5 min discussion)
Giovanna Paternoster (Hop Necker, Paris)

10H30-11H00 | *Coffee break*

11H02-13H15 | **SESSION 1: NEUROSURGERY** AMPHITHEATER LAVOISIER *Chairs: Jay Jayamoyan (United Kingdom), Marie-Lise van Veelen (Netherlands)*

- 11H03-11H06 | **S1-01 - UPDATING CEPHALIC INDEX NORMS IN A DIVERSE URBAN PATIENT POPULATION AFTER THE BACK TO SLEEP CAMPAIGN: AN EPIDEMIOLOGIC STUDY**
J. K. Mcintyre, A. K. Phelan, M. J. McCarthy, G. Gu, D. Stamer, J. F. Lalikos (United States)*
- 11H06-11H09 | **S1-02 - INTRACRANIAL HYPERTENSION AND CORTICAL THICKNESS IN SYNDROMIC CRANIOSYNOSTOSIS**
A. T. Wilson, B. K. den Ottelander, R. de Goederen, M.-L. C. Van Veelen, M. H. G. Dremmen, H. A. Vrooman, I. M. J. Mathijssen (Netherlands)*
- 11H10-11H13 | **S1-03 - INTRACRANIAL HYPERTENSION AND SLEEP-DISORDERED BREATHING IN CHILDREN WITH CRANIOSYNOSTOSIS**
O. Iqbal, K. Russo, M. Samuels, F. Abel, J. Ong, N. U. O. Jeelani, D. Dunaway, G. James (United Kingdom)*
- 11H13-11H19 | **DISCUSSION**
- 11H20-11H23 | **S1-04 - PREDICTIVE FACTORS OF FRONTAL LOBE CHANGES FOLLOWING FRONTOFACIAL SURGERY**
L. S. van de Lande, A. Y. Chua, Y. Zhang, J. Ong, O. Jeelani, D. J. Dunaway, R. Hayward, G. James (United Kingdom)*

- 11H23-11H29 | **S1-05 - HYDROCEPHALUS AND ITS TREATMENT IN CROUZON'S SYNDROME**
J. Spoor, B. den Ottelander, S. Versnel, I. Mathijssen, R. de Jong, M.-L. van Veelen and Craniofacial team Erasmusmc/Sophia Childrens Hospital (Netherlands)*
- 11H30-11H36 | **S1-06 - ABNORMAL VENOUS DRAINAGE IN COMPLEX CRANIOSYNOSTOSIS MAY CAUSE VENTRICULOMEGALY**
S. Benichi, R. Levy, H. Khonsari, S. James, E. Arnaud, G. Paternoster (France)*
- 11H36-11H42 | **DISCUSSION**
- 11H43-11H46 | **S1-07 - COHORT VALIDATION OF OPTICAL COHERENCE TOMOGRAPHY TO DETECT ELEVATED INTRACRANIAL PRESSURE IN CHILDREN WITH CRANIOSYNOSTOSIS**
J. Swanson, A. Azzolini, R. Yang, S. Bartlett, J. Taylor (United States)*
- 11H46-11H52 | **S1-08 - NEAR INFRA-RED CEREBRAL OXIMETRY IN DIAGNOSTIC OF CRANIOCEREBRAL DIS PROPORTION**
K. Aleksandr, V. Ivanov, W. Khachatryan (Russian Federation)*
- 11H53-11H56 | **S1-09 - PREVALENCE OF ELEVATED INTRACRANIAL PRESSURE BY SUTURE TYPE DETECTED BY OPTICAL COHERENCE TOMOGRAPHY IN CHILDREN WITH CRANIOSYNOSTOSIS**
A. Azzolini, L. Lin, W. Xu, R. Yang, S.-S. Lang, J. Taylor, G. Heuer, S. Bartlett, J. Swanson (United States)*
- 11H56-12H02 | **DISCUSSION**
- 12H03-12H06 | **S1-10 - CLINICAL AND RADIOLOGIC CORRELATION WITH MRI TRACTOGRAPHY IN PRIMARY CRANIOSYNOSTOSIS WITH CRANIAL DECOMPRESSION**
D. C. Gomez Prada, R. Prada Madrid (Colombia)*
- 12H07-12H13 | **S1-11 - CEREBRAL PERFUSION IN SIMPLE CRANIOSYNOSTOSIS USING ARTERIAL SPIN LABELLING MRI .**
Y. Caudron, G. Paternoster, R. Levy, S. Haber, R. H. Khonsari, D. Grévent, E. Arnaud, N. Boddaert (France)*
- 12H13-12H18 | **DISCUSSION**
- 12H19-12H22 | **S1-12 - A REPORT OF THE WORLD'S FIRST SEVEN CASES:FIRST IN HUMAN EXPERIENCE WITH INTEGRATION OF HYDROCEPHALUS SHUNT DEVICE WITHIN A CUSTOMIZED CRANIAL IMPLANT**
*C. Gordon *, A. Wolff. Santiago, K. Liebman, E. Veznedaroglu, F. Vrionis, M. Belzberg, N. Benshalom, J. Huang, H. Brem, M. Luciano (United States)*
- 12H22-12H25 | **S1-13 - 18-MONTH OUTCOME REPORT FOR FIRST-IN-HUMAN NEUROMODULATION DEVICE INTEGRATED WITHIN CUSTOMIZED CRANIAL IMPLANT**
G. Santiago, J. Huang, G. Bergey, S. Liu, M. Armand, H. Brem, W. Anderson, C. Gordon (United States)*
- 12H26-12H29 | **DISCUSSION**
- 12H30-12H33 | **S1-14 - BLINDNESS IN CRANIOSYNOSTOSIS AND THE ROLE OF OPTIC NERVE CANAL DECOMPRESSION**
J. H. Peixoto, D. N. Camargo, A. S. Silva, V. L. N. Cardim (Brazil)*
- 12H33-12H36 | **S1-15 - CRANIAL VAULT EXPANSION WITH THE SPLIT BONE FLAP TECHNIQUE IN SHUNT RELATED CRANIOSYNOSTOSIS**
P.-A. Beuriat, F. Di Rocco, C. Paulus, A. Szathmari, C. Mottolese (France)*
- 12H37-12H40 | **S1-16 - JOURNEY THROUGH REPAIR OF FRONTAL SKULL BASE ENCEPHALOCELES IN AFRICA**
S. A. Magdum, D. Chong, G. Parker (United Kingdom)*
- 12H40-12H47 | **DISCUSSION**
- 12H48-12H51 | **S1-18 - NOVEL TRANSPALPEBRAL «EYELID» APPROACH FOR SUPRAORBITAL FRONTAL CRANIOTOMY AND ACCESS TO THE ANTERIOR CRANIAL FOSSA**
K. A. Morrison, S. J. Farber, M. B. Natter, H. A. Riina, D. A. Staffenberg (United States)*
- 12H51-12h57 | **S1-19 - ORBITAL LYMPHATIC MALFORMATIONS IN CHILDREN. TRANSCRANIAL APPROACH RESULTS IN SEVERE CASES. OUR EXPERIENCE**
E. M. Gomez, F. Carceller, M. Granados, J. M. Muñoz, J. Saceda (Spain)*
- 12h58-13H04 | **S1-20 - SEPARATION OF CRANIOPAGUS TWINS – PHILOSOPHY, TECHNIQUES AND INNOVATION; LESSONS LEARNT FROM THE GOSH EXPERIENCE OF 3 SETS OF TWINS**
N. U. O. Jeelani, R. D. Hayward, J. Ong, G. James, D. J. Dunaway and Great Ormond Street Hospital Multidisciplinary Craniopagus Team (United Kingdom)*
- 13H05-13H12 | **DISCUSSION**

13H13-14H13 | **Lunch & eposter presentations**

- 14H15-14H18 | **S2-01 - COMPLICATIONS FOLLOWING POSTERIOR CRANIAL VAULT DISTRACTION IN SYNDROMIC CRANIOSYNOSTOSIS**
P. Lapaine, A.-A. Roy, J. Ching, C. Forrest (Canada)*
- 14H18-14H21 | **S2-02 - IS A CONSOLIDATION PERIOD NECESSARY IN POSTERIOR CRANIAL VAULT DISTRACTION?**
G. Thomas, S. Wall, J. Jayamohan, S. Magdum, D. Johnson (United Kingdom)*
- 14H22-14H25 | **S2-03-N / S4A-03 - A TRANSFUSION REGIMEN WITH SAME-DONOR PACKED RED BLOOD CELLS REDUCES EXPOSURE TO MULTIPLE BLOOD DONORS IN CRANIOSYNOSTOSIS SURGERY**
S. Mogensen, D. Nowinski, N. Lubenow, P. Enblad, P. Frykholm (Sweden)*
- 14H25-14H32 | **DISCUSSION**
- 14H33-14H39 | **S2-04 - COMPARISON OF OPERATIVE PARAMETERS AND VOLUME EXPANSION FOLLOWING THREE TECHNIQUES FOR SYNDROMIC POSTERIOR CRANIAL VAULT EXPANSION**
W. F. Breakey, E. Mercan, L. S. van de Lande, P. G. Knoops, J. O'Hara, R. D. Hayward, D. J. Dunaway, S. Schievano, N. U. Jeelani, R. A. Hopper (United States)*
- 14H39-14H45 | **S2-05 - VOLUMETRIC CHANGES OF GREY MATTER, WHITE MATTER AND CEREBROSPINAL FLUID FOLLOWING 87 POSTERIOR VAULT EXPANSION CASES IN PATIENTS WITH CRANIOSYNOSTOSIS**
W. Breakey, P. Knoops, L. van de Lande, A. Borghi, A. Papaionnou, J. O'Hara, G. James, J. Ong, R. Hayward, D. Dunaway, S. Schievano, O. Jeelani (United Kingdom)*
- 14H46-14H52 | **S2-06 - VENTRICULAR SHUNT COMPLICATIONS IN PATIENTS UNDERGOING POSTERIOR VAULT DISTRACTION OSTEOGENESIS**
A. Azzolini, K. Magoon, R. Yang, M. Lanning, L. Lin, J. Swanson, S. Bartlett, J. Taylor (United States)*
- 14H52-14H59 | **DISCUSSION**
- 15H00-15H06 | **S2-07 - EFFECTIVENESS OF DISTRATOR-MEDIATED AND BRAIN-MEDIATED POSTERIOR VAULT EXPANSION IN COMPLEX CRANIOSYNOSTOSIS**
J. Black, G. Paternoster, S. Haber, H. Khonsari, S. James, D. Taylor, E. Arnaud (United States)*
- 15H06-15H09 | **S2-08 - POSTERIOR CALVARIAL DISTRACTION – A SAFE AND EFFECTIVE FIRST-LINE TREATMENT FOR CHILDREN WITH COMPLEX CRANIOSYNOSTOSIS AND CHIARI MALFORMATION**
W. B. Lo, K. Z. Thant, J. Kaderbhai, J. Jones, N. White, H. Nishikawa, S. Dover, M. Evans, D. Rodrigues and Department of Craniofacial Surgery, Birmingham Children's Hospital (United Kingdom)*
- 15H10-15H16 | **S2-09 - FORAMEN MAGNUM DECOMPRESSION PERFORMED SIMULTANEOUSLY WITH POSTERIOR CRANIAL VAULT DISTRACTION**
Y. Komuro, D. Senda, K. Shimoji (Japan)*
- 15H16-15H24 | **DISCUSSION**
- 15H25-15H28 | **S2-10 - 3D VOLUMETRIC CHANGES AND RADIOGRAPHIC MARKERS OF OPTIMAL POSTERIOR VAULT EXPANSION WITH DISTRACTION OSTEOGENESIS (3 min)**
M. Thatikunta, T. Moriarty, S. Rapp, L. Pearson, C. Nguyen, K. John, M. Abolfotoh, I. Mutchnick, W. Gump, M. Chariker (United States)*
- 15H28-15H34 | **S2-11 - ENDOSCOPIC SPRING-MEDIATED DISTRACTION FOR UNILAMBDROID CRANIOSYNOSTOSIS**
P. A. Mittermiller, D. H. Rochlin, C. C. Sheckter, S. Martin, R. M. Menard (United States)*
- 15H35-15H40 | **DISCUSSION**
- 15H41-15H44 | **S2-12 - REPEAT POSTERIOR CRANIAL VAULT DISTRACTION OSTEOGENESIS: INDICATIONS AND MODIFICATION OF TECHNIQUE**
I. C. Hoppe, A. Azzolini, K. Magoon, R. Yang, J. Swanson, J. Taylor, S. Bartlett (United States)*
- 15H44-15H50 | **S2-14 - QUANTITATIVE OUTCOMES IN POSTERIOR AND TRANSVERSE CRANIAL VAULT DISTRACTION FOR CRANIOSYNOSTOSIS**
C. Buckley, P. Karunakaran Reddy, J. Caird, E. Laffan, D. Murray (Ireland)*
- 15H51-15H55 | **DISCUSSION**

16H26-17H30 |

PANEL 2 - ALLOTRANSPLANTATION AMPHITHEATER LAVOISIER

Chairs: Joe McCarthy (United States), Laurent Lantieri (France)

- 16H29-16H37 | **PAN2.1 - PREPARATION OF ALLOTRANSPLANTATION**
Patrik Lassus (Finland)
- 16H38-16H42 | **PAN2.2 - IMMERSIVE-TOUCH VIRTUAL REALITY FOR PREPARATION OF ALLOTRANSPLANTATION**
Pravin Patel (United States)
- 16H43-16H53 | **PAN2.3 - COMPLICATIONS OF ALLOTRANSPLANTATION**
Laurent Lantieri (France)
- 16H54-17H04 | **PAN2.4 - BIOENGINEERING HUMAN FACE GRAFTS: FROM VCA TO THE NEW FRONTIER OF VCE**
Benoit Lengelé (Belgium)
- 17H05-17H15 | **PAN2.5 - ALTERNATIVES TO ALLOTRANSPLANTATION**
Frédéric Kolb (France)
- 17H15-17H30 | **DISCUSSION**

17H30-19H25 |

SESSION 3: FACIOCRANIOSYNOSTOSIS – PART I AMPHITHEATER LAVOISIER

Chairs: Kenneth Salyer (United States), Kaneshige Satoh (Japan)

- 17H31-17H34 | **S3-01 - MANAGEMENT OF LARGE SINUS PERICRANII WITH CROUZON'S SYNDROME**
H. Tao, W. Shen, Y. Ji, C. Jie (China)*
- 17H34-17H37 | **S3-02 - CRANIAL FOSSA DEVELOPMENT IN DIFFERING SUBTYPES OF CROUZON SYNDROME**
X. Lu, A. J. Forte, M. Alperovich, D. Steinbacher, N. Alonso, J. Persing (United States)*
- 17H38-17H41 | **S3-03 - IS THERE A ROLE FOR PROPHYLACTIC POSTERIOR FOSSA DECOMPRESSION FOR CHIARI MALFORMATION IN SYNDROMIC CRANIOSYNOSTOSIS?**
E. Ghizoni, P. A. Rodrigues, C. E. Raposo Amaral, L. G. Matias, N. A. D. S. Júnior, D. L. D. C. Oliveira, R. Denadai, C. A. Raposo Amaral (Brazil)*
- 17H41-17H48 | **DISCUSSION**
- 17H49-17H52 | **S3-04 - EARLY CRANIOFACIAL GROWTH IN SYNDROMIC SYNOSTOSIS: IMPLICATIONS FOR ADVANCEMENT PROCEDURES**
K. Preston, E. Mercan, H. Kapadia, R. Hopper (United States)*
- 17h52-17H55 | **S3-05-N / S12-10 - THE EFFECTS OF FACIAL BIPARTITION DISTRACTION SURGERY ON THE DENTAL ARCH IN APERT SYNDROME**
A. Rezvani, D. Gill, D. Dunaway, O. Jeelani, G. James, J. Ong, R. Evans, F. Angullia (United Kingdom)*
- 17H56-17H59 | **S3-06 - SURFING THE BONE PRESSURE WAVE: CORRELATION OF CSF RATIO WITH CRANIAL DEFECT HEALING IN PFEIFFER PATIENTS REQUIRING EARLY INTERVENTION**
C. Wang, E. Mercan, R. Ettinger, R. A. Hopper (United States)*
- 17H59-18h06 | **DISCUSSION**
- 18h07-18h13 | **S3-07 - NONSYNDROMIC CRANIOSYNOSTOSIS AND INCREASED RISK FOR NEURODEVELOPMENTAL DISORDERS**
K. K. Tillman, D. Nowinski, J. Höijer, M. Ramklint, L. Ekselius, F. C. Papadopoulos (Sweden)*
- 18h13-18h16 | **S3-08 - SPEECH OUTCOMES FOLLOWING MIDFACE DISTRACTION IN SYNDROMIC CRANIOSYNOSTOSIS**
A. Wes, J. Sun, A. Foglio, K. Magoon, J. Taylor (United States)*
- 18h17-18H22 | **DISCUSSION**
- 18H23-18H26 | **S3-10 - LEFORT II OSTEOTOMY WITH ZYGOMATIC REPOSITIONING RESULTS IN SIGNIFICANT NASOPHARYNGEAL AIRWAY EXPANSION IN PATIENTS WITH APERT SYNDROME**
H. Kapadia, S. Susarla, E. Mercan, N. Kurnik, M. Calis, R. Hopper (United States)*
- 18H26-18H29 | **S3-11 - COMPARISON OF LE FORT II DISTRACTION WITH ZYGOMATIC REPOSITIONING VERSUS LE FORT III DISTRACTION: IS THERE A DIFFERENCE IN SAFETY AND OUTCOME?**
C. A. Purnell, M. Evans, B. Massenburg, S. Kim, H. Kapadia, R. A. Hopper (United States)*
- 18H30-18H35 | **DISCUSSION**
- 18H36-18H39 | **S3-12 - COMPLICATIONS OF SUBCRANIAL LEFORT III AND MONOBLOC DISTRACTION, WITH AND WITHOUT FACIAL BIPARTITION, USING RIGID EXTERNAL DISTRACTORS**
A. C. Weeks, C. Parks, C. Duncan, D. Richardson, B. Robertson (United States)*

- 18H39-18H42 | **S3-13 - SURGICAL OUTCOMES OF COMBINED LEFORT III AND LEFORT I OSTEOTOMY: IMMEDIATE POST-SURGERY AND AT ONE YEAR FOLLOW UP**
O. Y. Yue, B. S. Eisemann, B. H. Grayson, R. L. Flores, D. A. Staffenberg, E. D. Rodriguez, J. G. McCarthy, P. R. Shetye (United States)*
- 18H43-18H46 | **S3-14 - THE MODIFIED LE FORT III OSTEOTOMY: A VERSATILE PROCEDURE FOR FINAL ORBITAL CORRECTION IN SYNDROMIC MID-FACIAL DEFICIENCY**
A. A. Heggie (Australia)*
- 18H46-18H53 | **DISCUSSION**
- 18H54-18H57 | **S3-15 - OBSTRUCTIVE SLEEP APNEA CAUSED BY MIDFACIAL HYPOPLASIA IN SYNDROMIC CRANIOSYNOSTOSIS: COMPARISON BETWEEN CROUZON SYNDROME AND APERT SYNDROME**
N. Mitsukawa, K. Satoh (Japan)*
- 18H57-19H03 | **S3-16 - MONOBLOC DISTRACTION WITH FACIAL BIPARTITION: OUTCOMES OF SIMULTANEOUS FACIAL MOVEMENT COMPARED TO MONOBLOC DISTRACTION OR FACIAL BIPARTITION ALONE**
P. Goel, N. Munabi, E. Nagengast, M. Williams, A. Fahradyan, M. Urata (United States)*
- 19H04-19H10 | **S3-17 - FRONTO-FACIAL MONOBLOC ADVANCEMENT WITH DISTRACTION TREATS OBSTRUCTIVE SLEEP APNEA IN FACIOCRANIOSYNOSTOSES: PROSPECTIVE ASSESSMENT OF 109 CASES**
R. H. Khonsari, S. Haber, G. Paternoster, B. Fauroux, M.-P. Morisseau-Durand, J. Leikola, Q. Hennocq, V. Viot-Blanc, P. Guerin, G. Baujat, C. Collet, V. Cormier-Daire, L. Legeai-Mallet, S. James, V. Couloigner, C. Tomat, P. Diner, C. Legros, P. Meyer, E. Arnaud (France)*
- 19H10-19H13 | **S3-18-N / S12-11 - THE EFFECT OF FACIAL BIPARTITION DISTRACTION ON UPPER AIRWAY VOLUME AND OBSTRUCTIVE SLEEP APNOEA IN APERT'S PATIENTS**
C. Rolland, D. Gill, F. Angullia, W. R. Fright, D. Dunaway, O. Jeelani, G. James, J. Ong, M. Wyatt, M. Samuels, R. Evans, A. Johal (United Kingdom)*
- 19h13-19H25 | **DISCUSSION**

17H30-19H30 |

INTERNATIONAL COURSE S.O.R.G. ACADEMY: THE CRANIOFACIAL ARENA, PRO AND CONTRA, OPINIONS VS. EVIDENCE ROOM 101

Chairs: Alberto Bianchi (Italy), Peter Kessler (Netherlands)



MANAGEMENT OF ANTERIOR – POSTERIOR GROWTH IMPAIRMENT

(1 hour: 15' each discussant + 15' of general discussion with questions from the audience)
*Discussants: Nicolai Adolphs, Berlin, Germany, Irene Matthijssen, Rotterdam, The Netherlands
 Giovanna Paternoster, Paris, France*

FRONTO-ORBITAL, MONOBLOC, LE FORT III – QUESTIONS:

- 1) Single stage vs. gradual or staged approaches, if gradual, springs vs. internal/external devices internal vs. external
- 2) DO: How controllable is internal vs external distraction? What are the disadvantages of each technique? Device related? Outcome related? How are the devices tolerated in infants and children?

MANAGEMENT OF TRANSVERSE DISCREPANCIES

(1 hour: 15' each discussant + 15' of general discussion with questions from the audience)
Discussants: Michael Engel, Heidelberg, Germany, Owase Jeelani, London, United Kingdom, Marloes Nienhuijs, Nijmegen, The Netherlands

SAGITTAL SYNOSTOSIS – QUESTIONS:

- 1) Open vs endoscopic vs spring in craniosynostosis, when should springs not be used?
- 2) How to control springs? Spring and helmet? Patient positioning? Regulation - Why not bend a garage wire?

HYPERTELORISM AND HYPOTELORISM – QUESTIONS:

- 1) How best to deal with transverse discrepancy? Contraction and expansion of the coronal plane?
- 2) Hypotelorism correction in trigonocephaly (±with springs) - is it worth it? How to assess the amount of bone that has to be removed or added and the management of the lateral canth?

WEDNESDAY, SEPTEMBER 18, 2019

ISCFS CONGRESS – PROGRAMME DAY 2

08H00-10H25 |

SESSION 4A: GENERALITIES IN CRANIOSYNOSTOSIS – PART I

AMPHITHEATER LAVOISIER

Chairs: Steven Wall (United Kingdom), Giovanna Paternoster (Hop Necker, Paris)

- 08H00-08H03 | **S4A-01 - CLINICAL AND GENETIC CHARACTERIZATION OF CRANIOSYNOSTOSIS; A RETROSPECTIVE COHORT STUDY AT KING SAUD UNIVERSITY MEDICAL CITY**
T. Alhumsî, M. Alghamdi, I. Altweijri, W. H. Alkhamis, O. Barasain (Saudi Arabia)*
- 08H03-08H06 | **S4A-02 - EFFICACY OF TWO TRANEXAMIC ACID DOSAGE REGIMES FOR CRANIOSYNOSTOSIS SURGERY; A RANDOMIZED CONTROLLED EQUIVALENCY TRIAL**
S. M. Goobie, N. Disma, S. Staffa, M. R. Proctor, J. G. Meara (United States)*
- 08H07-08H12 | **DISCUSSION**
- 08H13-08H16 | **S4A-04 - EVALUATING THE UTILITY OF POSTOPERATIVE COMPUTED TOMOGRAPHY SCANS FOLLOWING CRANIAL VAULT RECONSTRUCTION SURGERY FOR CRANIOSYNOSTOSIS**
C. Birgfeld, C. Ahammout, F. Perez, C. Heike (United States)*
- 08H16-08H19 | **S4A-05 - DOES THE BANDEAU GROW: QUANTIFYING POST-OPERATIVE CHANGES IN THE BANDEAU OVER TIME AFTER FRONTO-ORBITAL ADVANCEMENT**
L. A. Dvoracek, A. Foglio, S. Herman, E. Roy, S. P. Bartlett, J. E. Losee, J. A. Taylor, J. A. Goldstein (United States)*
- 08H20-08H23 | **S4A-06 - A PERI-OPERATIVE FRONTOFACIAL SURGERY CARE PLAN: THE DESIGN AND OUTCOMES. 5 YEARS LATER**
A. R. White, D. Dunaway, L. Van De Lande (United Kingdom)*
- 08H23-08H29 | **DISCUSSION**
- 08H30-08H33 | **S4A-07 - CATASTROPHIC AND CRITICAL INTRA-OPERATIVE EVENTS DURING PEDIATRIC CRANIOFACIAL SURGERY: A NURSING PERSPECTIVE**
C. Durocher, L. Luxford, J. Phillips, T. Der, C. McDonnell, C. Forrest (Canada)*
- 08H33-08H36 | **S4A-08 - WHAT IS AN ACCEPTABLE HEAD SHAPE IN CHILDREN? A CROWDSOURCING STUDY**
S. Alshaqsi, J. Phillips, A. Rai (Canada)*
- 08H37-08H40 | **S4A-09 - PERIOPERATIVE COMPLICATIONS IN NEONATES UNDERGOING CRANIOFACIAL SURGERY: A REVIEW OF 14 YEARS' EXPERIENCE IN OXFORD, UK**
S. Das and Oxford Craniofacial Unit (United Kingdom)*
- 08H40-08H46 | **DISCUSSION**
- 08H47-08H50 | **S4A-10 - EFFECTS OF DIFFERENT DIRECTIONS OF ANTERIOR CRANIAL DISTRACTION OSTEOGENESIS ON ANTERIOR CRANIAL VOLUME**
S. Lijun, W. Shen, C. Jianbing, H. Tao, C. Jie (China)*
- 08H50-08H53 | **S4A-11 - EVALUATION OF REOPERATIONS FOR REMOVAL OF ABSORBABLE PLATES AND SCREWS AFTER CRANIO-MAXILLOFACIAL SURGERY**
T. Kobayashi, N. Handa, K. Koike, S. Mochizuki, I. Kaku, S. Takae (Japan)*
- 08H54-08H57 | **S4A-12 - THE EFFICACY OF OUR NOVEL SUTURECTOMY TECHNIQUE WITH ABSORBABLE PLATES IN EARLY SURGERY FOR CRANIOSYNOSTOSIS**
K. Imai, T. Masuoka, D. Sakahara, S. Taniguchi, N. Kunihiro (Japan)*
- 08H57-09H04 | **DISCUSSION**
- 09H04-09H07 | **S4A-13 - WOUND HEALING COMPLICATIONS AFTER SURGICAL REPAIR OF CRANIOSYNOSTOSIS: ARE ALL RESORBABLE PLATING SYSTEMS CREATED EQUAL?**
M. A. Kugar, J. S. Wood (United States)*
- 09H07-09H10 | **S4A-14 - NEOSUTURE FORMATION AFTER CRANIOSYNOSTOSIS RECONSTRUCTION, REVIEW OF LITERATURE AND REPORTED INCIDENCE IN MAJOR SUTURES**
A. Bapodra, A. Awad, B. Nguyen, O. A. Adetayo (United States)*
- 09H11-09H14 | **S4A-15 - CRANIOSYNOSTOSIS – A REVERSIBLE PATHOLOGY? NEOSUTURES APPEARING AFTER OSTEOTOMY COMBINED WITH SPRINGS**
L. Kölby, G. Maltese, P. Tarnow, K. Säljö (Sweden)*

09H14-09H21 | **DISCUSSION**

09H22-09H25 | **S4A-16 - RELEVANT FACTORS FOR REPEAT SURGERY FOR NON-SYNDROMIC CRANIOSYNOSTOSIS: A 21-YEAR EXPERIENCE AT A SINGLE INSTITUTION**

D. Tsering, H. Alexander, O. Ayers, J. S. Myseros, S. N. Magge, C. O. Oluigbo, M. J. Boyajian, A. K. Oh, G. F. Rogers, R. F. Keating (United States)*

09H25-09H31 | **S4A-17 - LESSONS LEARNED FROM X-LINKED HYPOPHOSPHATEMIC RICKETS RELATED CRANIOSYNOSTOSIS**

F. Di Rocco, A. Linglart, C. Adamsbaum, Y. Debza, J. Bacchetta, A. Rothenbuhler (France)*

09H32-09H35 | **S4A-19 - THE COGNITIVE PROFILE OF CHILDREN WITH NON-SYNDROMIC CRANIOSYNOSTOSIS**

M. Kljajic, G. Maltese, P. Tarnow, P. Sand, L. Kölby (Sweden)*

09H35-09H42 | **DISCUSSION**

09H43-09H46 | **S4A-20 - A CRITICAL CONTENT ANALYSIS OF SOCIAL MEDIA SUPPORT GROUPS FOR CRANIOSYNOSTOSIS: A VALUABLE TOOL FOR QUALITY IMPROVEMENT AND EDUCATION**

M. Hu, A. Foglio, T. Elgendy, L. Dvoracek, F. Egro, J. Losee, J. Goldstein (United States)*

09H46-09H49 | **S4A-21 - AN ASSESSMENT OF US AND EUROPEAN CRANIOFACIAL CENTER WEBSITES: ARE THEY PROVIDING ACCURATE AND THOROUGH INFORMATION TO FAMILIES?**

J. Goldstein, M. Lypka, C. Kaufman (United States)*

09H50-09H53 | **S4A-22 - PARENT-PROXY VS. PATIENT-REPORTED PSYCHOSOCIAL FUNCTIONING OF CHILDREN WITH CRANIOFACIAL ANOMALIES**

J. B. Chang, M. J. Pfaff, E. J. Volpicelli, H. M. Potemra, F. S. De Leon, J. Lin, J. A. Zimmerman, J. P. Bradley, L. F. Wilson, J. C. Lee (United States)*

09H53-10h00 | **DISCUSSION**

10h01-10H04 | **S4A-23 - NEUROLOGIC CHARACTERIZATION OF CRANIOSYNOSTOSIS: CAN DIRECT BRAIN RECORDINGS PREDICT LANGUAGE DEVELOPMENT?**

R. T. Wu, J. Nie, P. F. Abraham, K. S. Gabrick, C. J. Peck, T. Halligan, R. Sawh-Martinez, D. M. Steinbacher, M. A. Alperovich, J. A. Persing (United States)*

10H04-10H07 | **S4A-24 - A LONGITUDINAL AUDIT OF EARLY LANGUAGE ASSESSMENT OF CHILDREN WITH CRANIOSYNOSTOSIS AND IMPLICATIONS FOR THE DEVELOPMENT OF MULTI-DISCIPLINARY CARE**

S. Carter, E. Scobie, Z. Healey, M. Evans, S. Dover, H. Nishikawa, W. Lo, D. Rodrigues, N. White (United Kingdom)*

10H08-10H11 | **S4A-25 - INTERNATIONAL ESTABLISHMENT OF CRANIOFACIAL PROGRAM: 15 YEARS IN THE REPUBLIC OF MOLDOVA**

C. Dillingham, L. David, M. Ciobanu, S. Railean (United States)*

10H11-10H14 | **S4A-26 - A COLLABORATIVE APPROACH TO DEVELOPING SPEECH AND LANGUAGE THERAPY ASSESSMENT PROTOCOLS**

E. Scobie, Z. Healey, W. Blumenow, S. Kilcoyne, C. Shipster, S. Carter, L. Garvie, S. Overton, C. Luscombe, M. Evans, D. Johnson, C. Parks, G. James (United Kingdom)*

10H15-10H24 | **DISCUSSION**

10H25-11H00 | **Coffee break**

11H02-11H45 |

SESSION 5A: GENERALITIES IN CRANIOSYNOSTOSIS – PART II

AMPHITHEATER LAVOISIER

Chairs: Jeffrey A. Fearon (United States), Juan Carlos Rodriguez (Argentina)

- 11H03-11H06 | **S5A-01 - EVALUATING STRESS IN CAREGIVERS OF CHILDREN WITH CRANIOSYNOSTOSIS**
A. R. Tang, G. Sellyn, A. Feldman, C. Havemann, S. Gannon, A. Davis, C. Shannon, C. Bonfield* (United States)
- 11H06-11H12 | **S5A-03 - THE MELBOURNE METHOD OF TOTAL CRANIAL VAULT RECONSTRUCTION - NEUROSURGICAL NUANCES**
A. Wray*, W. Maixner, D. Chong, J. Burge, A. Holmes (Australia)
- 11H13-11H16 | **S5A-04 - OPHTHALMOLOGICAL FINDINGS IN INFANTS WITH NON-SYNDROMIC CRANIOSYNOSTOSIS**
E. Ntola*, E. Larsson, D. Nowinski, G. Holmström (Sweden)
- 11H16-11H23 | **DISCUSSION**
- 11H24-11H30 | **S5A-05 - LARGE SINGLE INSTITUTION SERIES OF ENDOSCOPICALLY TREATED INFANTS WITH CRANIOSYNOSTOSIS**
C. P. Riordan, D. Zurakowski, G. Alexopoulos, P. M. Meier, J. G. Meara, S. M. Goobie, M. R. Proctor* (United States)
- 11H30-11H36 | **S5A-07 - SMAD6 GENOTYPE PREDICTS NEURODEVELOPMENT IN NON-SYNDROMIC CRANIOSYNOSTOSIS**
R. T. Wu*, A. T. Timberlake, P. F. Abraham, K. S. Gabrick, C. J. Peck, X. Lu, R. Sawh-Martinez, D. M. Steinbacher, M. A. Alperovich, J. A. Persing (United States)
- 11H37-11H45 | **DISCUSSION**

11H46-12H55 |

SESSION 6A: CORONAL SYNOSTOSIS AMPHITHEATER LAVOISIER

Chairs: Jeffrey A. Fearon (United States), Juan Carlos Rodriguez (Argentina)

- 11H47-11H53 | **S6A-01 - FACIAL ANALYSIS OF CRANIALLY MATURE ADOLESCENTS WITH UNILATERAL CORONAL CRANIOSYNOSTOSIS**
K. Gabrick, R. Wu, A. Singh, J. Taylor, S. Bartlett, J. Persing*, M. Alperovich (United States)
- 11H53-11H59 | **S6A-02 - CRANIALLY-MATURE NEUROCOGNITIVE OUTCOMES IN UNILATERAL CORONAL CRANIOSYNOSTOSIS FOLLOWING CRANIAL VAULT REMODELING**
J. Smetona*, R. T. Wu, K. S. Gabrick, A. Singh, N. Pourtaheri, J. A. Taylor, S. P. Bartlett, D. M. Steinbacher, J. A. Persing, M. Alperovich (United States)
- 12H00-12H07 | **DISCUSSION**
- 12H08-12H14 | **S6A-05 - IMPROVED OUTCOMES IN STRABISMUS ASSOCIATED WITH UNICORONAL CRANIOSYNOSTOSIS (UCS)**
D. Cuzzone*, D. S. Harter, J. Wisoff, M. Steele, J. Nam, M. Lustig, D. A. Staffenberg (United States)
- 12H14-12H20 | **S6A-07 - SEVERITY OF ORBITAL DYSMORPHOLOGY CORRELATES WITH STRABISMUS IN UNICORONAL CRANIOSYNOSTOSIS PATIENTS UNDERGOING FRONTAL ORBITAL ADVANCEMENT**
J. W. Yu*, W. Xu, J. Wink, A. Wes, S. Bartlett, J. Taylor (United States)
- 12H21-12H27 | **DISCUSSION**
- 12H28-12H34 | **S6A-08 - NASAL MONOBLOC FOR CORRECTION OF LATE NASAL AND ORBITAL ASYMMETRY OF UNICORONAL SYNOSTOSIS (UCS): A MORPHOMETRIC AND OUTCOMES ANALYSIS**
C. Forrest*, J. Ching (Canada)
- 12H34-12H40 | **S6A-09 - MUENKE SYNDROME: LONG-TERM OUTCOME OF A SYNDROME-SPECIFIC TREATMENT PROTOCOL**
B. K. Den Ottelander*, R. de Goederen, M.-L. C. van Veelen, S. D. C. van de Beeten, M. H. G. Dremmen, S. E. Loudon, M. A. J. Telleman, H. H. W. de Gier, E. B. Wolvius, S. T. H. Tjoa, S. L. Versnel, K. F. M. Joosten, I. M. J. Mathijssen (Netherlands)
- 12H41- 12H44 | **S6A-10-N / 19-2-230 - IN SITU UNILATERAL REMODELING OF SUPRA ORBITAL BAR BY INCOMPLETE OSTEOTOMY IN UNILATERAL SAGITTAL SYNOSTOSIS**
J. Saboye*, S. Boeto (France)
- 12H45-12H55 | **DISCUSSION**

SESSION 7A: SAGITTAL SYNOSTOSIS AMPHITHEATER LAVOISIER

Chairs: John Persing (United States), Mark R. Proctor (United States)

- 14H01-14H04 | **57A-01 - PROGRESSION OF SCAPHOCEPHALY IN UNTREATED SAGITTAL SYNOSTOSIS OVER THE FIRST YEAR OF AGE**
B. B. Massenburg*, E. Mercan, A. H. Nassar, E. Shephard, C. B. Birgfeld, A. Lee, R. A. Hopper (United States)
- 14H04-14H07 | **57A-02 - COMPUTATIONAL MODELLING OF CALVARIAL GROWTH IN SAGITTAL SYNOSTOSIS**
O. Malde, C. L. Lim, A. Marghoub, M. L. Cunningham, R. A. Hopper, M. Moazen* (United Kingdom)
- 14H08-14H11 | **57A-03 - A POPULATION-BASED NUMERICAL MODEL OF CALVARIAL MECHANICS TO IMPROVE PREDICTION ACCURACY IN SPRING ASSISTED CRANIOPLASTY**
A. Borghi, F. Ruggiero*, N. Rodriguez Florez, S. Schievano, D. Dunaway, O. Jeelani (United Kingdom)
- 14H11-14H14 | **57A-04 - SAGITTAL SYNOSTOSIS WITHOUT SCAPHOCEPHALY – A REVIEW OF 8 CASES**
D. Ferguson*, B. Hall, L. Culshaw, A. Kearney, W. Blumenow, C. Parks (United Kingdom)
- 14H15-14H23 | **DISCUSSION**
- 14H24-14H27 | **57A-05 - IMPACT OF SPRING FORCE, LENGTH, AND QUANTITY IN OUTCOMES OF SPRING-MEDIATED CRANIAL VAULT EXPANSION IN SAGITTAL SYNOSTOSIS**
S. Shakir*, M. Lanni, C. A. Messa, R. Yang, S.-S. Lang Chen, S. P. Bartlett, J. A. Taylor, J. W. Swanson (United States)
- 14H27-14H30 | **57A-06 - CEPHALIC MEASUREMENTS ON 3D PHOTOGRAMMETRY IN A COHORT OF SCAPHOCEPHALIC PATIENTS FOLLOWING SPRING ASSISTED CRANIOPLASTY**
M. Tenhagen*, K. A. Mauff, I. M. Mathijssen, M.-L. C. van Veelen (Netherlands)
- 14H31-14H37 | **57A-07 - AN UPDATE ON THE OUTCOMES OF SPRING-ASSISTED SURGERY FOR SAGITTAL CRANIOSYNOSTOSIS**
L. R. David*, J. Park, D. Massary, K. Gabrick, D. Couture, C. Runyan (United States)
- 14H37-14H40 | **57A-08 - SPRING-ASSISTED SURGERY FOR TREATMENT OF SAGITTAL CRANIOSYNOSTOSIS IN MOLDOVA**
S. Railean*, C. M. Runyan, S. G. Thomas, D. Massary, R. Siska, L. R. David, C. D. Sanger (Republic of Moldova)
- 14H41-14H44 | **57A-09 - SHAPE MEMORY ALLOYS IN CRANIOFACIAL SURGERY: DESIGN AND ASSESSMENT OF A NOVEL DISTRACTOR FOR THE CORRECTION OF SCAPHOCEPHALY**
A. Borghi*, F. Ruggiero, N. Rodriguez Florez, D. Dunaway, S. Schievano, O. Jeelani (United Kingdom)
- 14H44-14H52 | **DISCUSSION**
- 14H53-14H59 | **57A-10 - THE MELBOURNE METHOD OF TOTAL CRANIAL VAULT RECONSTRUCTION FOR SCAPHOCEPHALY– A TWENTY YEAR OVERVIEW**
A. Holmes*, A. Wray, J. Burge (Australia)
- 14H59-15H02 | **57A-11 - EVOLUTION OF SURGICAL MANAGEMENT OF SAGITTAL SYNOSTOSIS – A SINGLE INSTITUTION REVIEW**
P. S. Bradford, M. Ishaque, E. Shaffrey, C. Schaeffer, J. Jane Jr., H. R. Syed*, J. Black (United States)
- 15H03-15H09 | **57A-12 - H-CRANIECTOMY VS SPRINGS: A COMPARISON BETWEEN THE TWO SWEDISH NATIONAL REFERRAL CENTERS .**
J. Unander-Scharin*, L. Kölby, D. Nowinski, P. Enblad, S. Fischer (Sweden)
- 15H09-15H15 | **DISCUSSION**
- 15H16-15H22 | **57A-13 - LONG-TERM NEUROCOGNITIVE OUTCOMES OF SPRING-ASSISTED SURGERY VERSUS CRANIAL VAULT REMODELING**
M. Alperovich*, C. M. Runyan, K. S. Gabrick, R. Wu, C. Morgan, S. Park, L. Chapman, D. E. Couture, L. R. David, J. A. Persing (United States)
- 15H22-15H28 | **57A-14 -10 YEARS REVIEW OF « H CRANIECTOMY » TECHNIQUE FOR SAGITTAL SYNOSTOSIS IN 436 PATIENTS,EVALUATION OF SURGICAL ASPECTS, AESTHETIC AND COGNITIVE OUTCOME**
G. Paternoster*, S. Haber, S. James, H. Khonsari, F. Di Rocco, D. Renier, E. Arnaud (France)
- 15H29-15H32 | **57A-15 - EVALUATION OF DELAYED SAGITTAL SYNOSTOSIS BENEFITS FROM QUANTITATIVE CRANIAL SHAPE ANALYSIS**
E. Mantilla-Rivas*, L. Tu, A. Goldrich, A. R. Porras, A. K. Oh, M. G. Linguraru, G. F. Rogers (United States)

- 15H32-15H35 | **57A-16 - FINGERPRINTING ON SKULL X-RAY; AN ASSOCIATION WITH OPTICAL COHERENCE TOMOGRAPHY IN SAGITTAL SYNOSTOSIS**
S. Van De Beeten, W. Ramdas, S. Loudon, B. den Ottelander, I. Mathijssen, M.-L. van Veelen (Netherlands)*
- 15H35-15H43 | **DISCUSSION**
- 15H44-15H50 | **57A-17 - THE FIRST MULTI-CENTRE RETROSPECTIVE REVIEW OF OUTCOMES AFTER SURGERY FOR SAGITTAL CRANIOSYNOSTOSIS: A CANADIAN NATIONAL COLLABORATIVE**
G. A. Roumeliotis (Canada)*
- 15H50-15H53 | **57A-18 - TWENTY YEAR REVIEW OF CONSECUTIVE SAGITTAL SYNOSTOSIS CASES WHO UNDERWENT CRANIAL VAULT REMODELLING BY A SINGLE SURGEON AT THE AUSTRALIAN CRANIOFACIAL UNIT**
L. Monshizadeh, D. David (Australia)*
- 15H54-15H57 | **57A-19 - LONG-TERM NEUROCOGNITIVE OUTCOMES IN SAGITTAL SYNOSTOSIS: THE IMPACT OF REOPERATION**
C. Chuang, T. Chaunzwa, R. Wu, A. Singh, A. Patel, J. F. Yang, P. W. Hashim, R. Travieso, J. S. Turner, L. C. Mayes, C. C. Duncan, J. A. Jane Sr., J. A. Jane Jr., K. Y. Lin, D. J. Bridgett, J. A. Persing (United States)*
- 15H57-16H04 | **DISCUSSION**

16H05-16H35 | **Coffee break**

16H35-18H04 | **SESSION 8A: METOPIC SYNOSTOSIS** AMPHITHEATER LAVOISIER
Chairs: Noor ul Owase Jeelani (United Kingdom), Jesse Taylor (United States)

- 16H36-16H42 | **S8A-02 - THE CC-UK – ROUTINE DEVELOPMENTAL SCREENING PROTOCOL IN THE UK RESULTS FOR CHILDREN WITH METOPIC AND SAGITTAL SYNOSTOSIS AT 3 AND 5 YEARS OF AGE**
H. J. Care, L. Dalton, L. Culshaw, J. Horton, A. Kearney, P. Kennedy-Williams, G. O’Leary, K. Piggott, N. Rooney, G. Wright (United Kingdom)*
- 16H42-16H48 | **S8A-03 - NEUROPSYCHOLOGICAL, BEHAVIOURAL AND PSYCHOLOGICAL FUNCTIONING OF CHILDREN AND ADULTS WITH UNOPERATED METOPIC SYNOSTOSIS**
A. Osborn, R. Roberts, J. Mathias, W. Flapper, P. Anderson (Australia)*
- 16H49-16H54 | **DISCUSSION**
- 16H55-16H58 | **S8A-04 - CLOMIPHENE CITRATE AND ENCLOMIPHENE HYDROCHLORIDE EXPOSURE IS ASSOCIATED WITH INTERFRONTAL SUTURE ABNORMALITIES IN ZEBRAFISH (DANIO RERIO)**
T. Franz-Odenaal, M. Bezuhly (Canada)*
- 16H58-17H01 | **S8A-05 - SCHOOL-AGE AESTHETIC OUTCOMES IN CHILDREN WITH METOPIC CRANIOSYNOSTOSIS. AFTER ENDOSCOPIC OR OPEN TREATMENT**
A. Y. S. Ha, D. Nguyen, G. Skolnick, S. Naidoo, M. Smyth, K. Patel (United States)*
- 17H02-17H05 | **S8A-06 - QUANTIFYING THE SEVERITY OF METOPIC CRANIOSYNOSTOSIS: A PILOT STUDY IN APPLICATION OF ADVANCED MACHINE LEARNING IN CRANIOFACIAL SURGERY**
L. A. Dvoracek, R. Bhalodia, A. Ayyash, L. Kavan, R. Whitaker, J. A. Goldstein (United States)*
- 17H05-17H08 | **S8A-07 - TRIGONOCEPHALY, A SHIFT IN INDICATION FOR SURGERY**
S. Versnel, B. den Ottelander, J. Okkerse, M.-L. van Veelen, I. Mathijssen (Netherlands)*
- 17H09-17H17 | **DISCUSSION**
- 17H18-17H21 | **S8A-08 - RADIATION-FREE 3D HEAD SHAPE AND VOLUME EVALUATION AFTER ENDOSCOPICALLY ASSISTED STRIP CRANIECTOMY FOLLOWED BY HELMET THERAPY FOR TRIGONOCEPHALY**
G. de Jong, M. Tolhuisen, J. Meulstee, F. van der Heijden, E. van Lindert, W. Borstlap, T. Maal, H. Delye and Craniofacial Team Nijmegen (Netherlands)*
- 17H21-17H24 | **S8A-09 - RADIOGRAPHIC SEVERITY OF METOPIC CRANIOSYNOSTOSIS CORRELATES WITH LONG-TERM NEUROCOGNITIVE OUTCOMES**
K. Gabrick, R. Wu, A. Singh, N. Pourtaheri, J. Persing, M. Alperovich (United States)*
- 17H25-17H28 | **S8A-10 - COMPARISON OF HEAD SHAPE OUTCOMES IN METOPIC SYNOSTOSIS: LIMITED STRIP CRANIECTOMY VERSUS FRONTO-ORBITAL RECONSTRUCTION**
M. P. Pressler, R. R. Hallac, J. R. Seaward, A. A. Kane (United States)*
- 17H28-17H34 | **DISCUSSION**

- 17H35-17H38 | **S8A-11 - LONG-TERM GROWTH FOLLOWING TRIGONOCEPHALY REPAIRS: ARE OVERCORRECTIONS NECESSARY?**
J. A. Fearon*, K. Dittthakasem, J. Chan, M. Herbert (United States)
- 17H38-17H41 | **S8A-12 - OPHTHALMOLOGIC ABNORMALITIES IN CHILDREN WITH TRIGONOCEPHALY**
S. Yang*, B. K. den Ottelander, M. A. Telleman, I. M. Mathijssen, S. E. Loudon (Netherlands)
- 17H42-17H45 | **S8A-13 - OPHTHALMOLOGIC FINDINGS IN CHILDREN WITH METOPIC SUTURE ABNORMALITIES**
L. Shock*, L. Roider, G. Ungerer, T. Nguyen, K. Aldridge, A. Muzaffar (United States)
- 17H45-17H51 | **DISCUSSION**
- 17H52-17H55 | **S8A-14 -10 ANALYSIS OF OPEN VS. ENDOSCOPIC VS SKULL DISTRACTION CRANIAL VAULT REMODELING TECHNIQUES FOR THE TREATMENT OF METOPIC CRANIOSYNOSTOSIS**
D. Hetzler, E. Stelnicki* (United States)
- 17H55-17H58 | **S8A-15 - CEREBRAL BLOOD FLOW OF THE FRONTAL LOBE IN UNTREATED CHILDREN WITH TRIGONOCEPHALY VERSUS HEALTHY CONTROLS: AN ARTERIAL SPIN LABELING STUDY**
C. A. De Planque*, I. M. Mathijssen, M.-L. C. van Veelen, S. L. Versnel, M. Dremmen (Netherlands)
- 17H58-18H04 | **DISCUSSION**

18H05-19H20 |

SESSION 9A: CRANIOPLASTY AMPHITHEATER LAVOISIER

Chairs: Shailendra Ashok Magdum (United Kingdom), Marie-Lise van Veelen (Netherlands)

- 18H05-18H11 | **S9A-01 - BONE MORPHOGENETIC PROTEIN-2 IN PEDIATRIC CRANIOPLASTY**
C. M. Jones*, S. Shah, B. Pan, P. Naidu, W. O'Brien, J. van Aalst, C. Gordon, J. Skoch (United States)
- 18H11-18H14 | **S9A-02 - CARBONATED CALCIUM PHOSPHATE CEMENT FOR SECONDARY CRANIOPLASTY; A LONG-TERM INSTITUTIONAL EXPERIENCE**
S. Shakir, R. Kimia, R. Yang, L. Humphries*, J. W. Swanson, J. A. Taylor, S. P. Bartlett (United States)
- 18H15-18H18 | **S9A-03 - DIPYRIDAMOLE-COATED 3DPBC SCAFFOLDS VERSUS AUTOGENOUS BONE GRAFT: LONG-TERM ANALYSIS OF OSTEOREGENERATIVE CAPACITY AND EFFECTS ON CRANIOFACIAL GROWTH**
P. G. Coelho, M. M. Wang, G. D. Kurgansky, R. Rodriguez Colon, A. Ibrahim, A. Torroni, L. Witek, B. N. Cronstein, R. L. Flores* (United States)
- 18H18-18H24 | **DISCUSSION**
- 18H25-18H28 | **S9A-04 - THE WORLD'S FIRST, BATTERY-POWERED, LOW-PROFILE INTER-CRANIAL DEVICE (LID) PROTOTYPE CAPABLE OF REMOTE MAPPING, RECORDING, AND TELEMETRY (MRT)**
B. Rabinovitz*, J. Christopher, C. Gordon (United States)
- 18H28-18H31 | **S9A-05 - TRANS-CRANIOPLASTY ULTRASOUND (TCU) THROUGH CLEAR-COLORED IMPLANTS: A VALIDATED PHANTOM STUDY COMPARING IMAGES VIA ULTRASOUND, CT AND MRI**
N. Benshalom*, M. Belzberg, A. Lu, E. Yuhanna, A. Manbachi, A. Tekes, J. Huang, H. Brem, C. Gordon (United States)
- 18H32-18H35 | **S9A-06 - A NEW WINDOW OF OPPORTUNITY FOR NEUROSURGEONS: TRANS-CRANIOPLASTY ULTRASOUND THROUGH SONOLUCENT CRANIAL IMPLANTS**
M. Belzberg, N. Ben-Shalom, E. Yuhanna, A. Manbachi, A. Tekes, T. Shay*, J. Huang, H. Brem, C. Gordon (United States)
- 18H35-18H40 | **DISCUSSION**
- 18H41-18H44 | **S9A-07 - USING VIRTUAL SURGICAL PLANNING TO CREATE CUSTOMIZED CRANI-ORBITAL IMPLANTS AFTER RADICAL RESECTION OF MONOSTOTIC FIBROUS DYSPLASIA: REPORT OF 2 CASES**
E. M. Jablonka, K. Mahaney, D. S. Hong, R. Khosla* (United States)
- 18H44-18H47 | **S9A-08 - MULTIPLE DELAYED SCALP RECONSTRUCTION FOR COMPLICATED CRANIAL DEFECT**
Y. Sakamoto*, E. Arnaud (Japan)
- 18H48-18H51 | **S9A-09 - AN OUTCOME REVIEW AND SYSTEMATIC ANALYSIS OF 440 CONSECUTIVE CRANIOPLASTIES**
A. Wolff*, A. Asemota, M. Belzberg, G. Santiago, N. Benshalon, J. Huang, M. Lim, J. Weingart, H. Brem, C. Gordon (United States)

- 18H51-18H58 | **DISCUSSION**
- 18H59-19H02 | **S9A-10 - COMPARISON OF CRANIOPLASTY TECHNIQUES UTILIZED TO RECONSTRUCT COMPOSITE FULL-THICKNESS SCALP DEFECTS**
J. Vargo, B. T. Andrews (United States)*
- 19H02-19H05 | **S9A-11 - SYNERGETIC EFFECT OF CALCIUM AND PLATELET RICH PLASMA ENHANCE THE OSTEOGENIC DIFFERENTIATION OF ADIPOSE DERIVED STEM CELLS**
C. F. Chen, Y. Y. Chu, B.-R. Lai, J.-R. Yang, H.-T. Liao (Taiwan)*
- 19H06-19H12 | **S9A-12 - AUTOGENOUS BONE CRANIOPLASTY: REVIEW OF A 42-YEAR EXPERIENCE BY A SINGLE SURGEON**
S. A. Wolfe, N. C. Cabbad, M. W. Stalder, E. M. Wolfe (United States)*
- 19H12-19H20 | **DISCUSSION**

08H00-10H35 |

SESSION 4B: ORTHOGNATHIC / TREACHER-COLLINS ROOM 101

Chairs: Richard Hopper (United States), Alvaro Figueroa (United States)

- 08H00-08H03 | **S4B-01 - DENTAL CARIES IN A CRANIOFACIAL POPULATION: 'UNDERSTANDING THE RISK: PREVENTING THE PREVENTABLE' - WEST MIDLANDS SUPRA REGIONAL CRANIOFACIAL UNIT, UK**
T. Gohil, S. Mckaig, S. Hackett, M. Evans (United Kingdom)*
- 08H03-08H06 | **S4B-02 - INTRAORAL SCANNING AND SETTING UP THE DIGITAL FINAL OCCLUSION IN 3D PLANNING OF ORTHOGNATHIC SURGERY**
L.-J. Lo and Department of Plastic and Reconstructive Surgery, and Craniofacial Research Center, Chang Gung Memorial Hospital, Chang Gung University, Taoyuan (Taiwan)*
- 08H07-08H13 | **S4B-03 - A MACHINE LEARNING FRAMEWORK FOR AUTOMATED DIAGNOSIS AND COMPUTER-ASSISTED SURGERY PLANNING IN ORTHOGNATHIC SURGERY**
P. G. Knoops, A. Papaioannou, A. Borghi, R. W. Breakey, A. T. Wilson, O. Jeelani, S. Zafeiriou, D. Steinbacher, B. L. Padwa, D. J. Dunaway, S. Schievano (United Kingdom)*
- 08H13-08H19 | **DISCUSSION**
- 08H20-08H23 | **S4B-04 - QUANTITATIVE AIRWAY ANALYSIS OF C3D0 COMPARED TO ISOLATED MDO IN SEVERE TREACHER COLLINS SYNDROME AIRWAY OBSTRUCTION**
R. Hopper, H. Kapadia, R. Knight (United States)*
- 08H23-08H29 | **S4B-05 - SEVERE OBSTRUCTIVE SLEEP APNEA IN TREACHER COLLINS SYNDROME: A COMMON AND RECURRING FINDING**
I. Mathijssen, S. Versnel, B. Pullens, S. Tjoa, K. Joosten, E. Wolvius (Netherlands)*
- 08H29-08H35 | **DISCUSSION**
- 08H36-08H38 | **S4B-07 - USING BLACK BONE MAGNETIC RESONANCE IMAGING IN VIRTUAL SURGICAL PLANNING FOR MAXILLARY SURGERY: A COMPARATIVE CADAVER STUDY**
M. Suchyta, W. Gibreel, S. Mardini (United States)*
- 08H39-08H42 | **S4B-08 - THE FUNCTIONAL AND PSYCHOSOCIAL BENEFITS OF TONGUE REDUCTION SURGERY (TRS) FOR MACROGLOSSIA IN BECKWITH WIEDEMANN SYNDROME**
C. Shipster, M. Slade, D. Dunaway, J. Ong, J. Britto, N. Behari (United Kingdom)*
- 08H43-08H46 | **S4B-09 - UPPER AIRWAY STIMULATION FOR PATIENTS DECLINING MAXILLOMANDIBULAR ADVANCEMENT FOR TREATMENT OF MODERATE TO SEVERE OBSTRUCTIVE SLEEP APNEA**
J. P. Lee, S. Y. Liu (Taiwan)*
- 08H46-08H51 | **DISCUSSION**
- 08H52-08H55 | **S4B-10 - PROSTHETIC TMJ RECONSTRUCTION WITH AND WITHOUT ORTHOGNATHIC SURGERY IN A COHORT OF ADOLESCENT FEMALES**
M. Lypka, J. Goldstein (United States)*
- 08H55-08H58 | **S4B-12 - ROBINOW SYNDROME:AN ANALYSIS OF 16 CLINICALLY DIAGNOSED CASES**
D. E. Guillen, R. Maricevich, C. Fonseca, C. Conlon (United States)*
- 08H59-09H06 | **DISCUSSION**

- 09H07-09H10 | **S4B-13 - TRANSPALATAL DISTRACTION FOR THE INDIVIDUAL CORRECTION OF TRANSVERSAL MAXILLARY DEFICIENCY – A RETROSPECTIVE EVALUATION OF 150 PATIENTS**
N. Adolphs, S. Scholz, M. Heiland (Germany)*
- 09H10-09H16 | **S4B-14 - MIDPALATAL SUTURE DENSITY AFTER SURGICALLY ASSISTED RAPID PALATAL SURGERY (SARPE)**
M. D. Pereira, C. A. A. Lima (Brazil)*
- 09H17-09H20 | **S4B-15 - TWO-POINT FIXATION OF THE LE FORT I OSTEOTOMY: A 1-YEAR ASSESSMENT OF STABILITY**
S. Susarla, H. Kapadia, R. Ettinger, K. Preston, M. Egbert (United States)*
- 09H20-09H26 | **DISCUSSION**
- 09H27-09H30 | **S4B-16 - MANDIBULAR OUTER CORTEX SPLITTING OSTEOTOMY: IS IT AN EFFECTIVE FACIAL CONTOUR SURGERY?**
X. Fu, N. Feng (China)*
- 09H30-09H33 | **S4B-17 - A FEASIBLE STUDY OF NEW METHOD TO ENHANCE THE AUGMENTED REALITY NAVIGATION EFFECT IN MANDIBULAR ANGLE SPLIT OSTEOTOMY**
L. Li, H. Xu, G. Chai, L. Xie (China)*
- 09H34-09H37 | **S4B-18 - STANDARDIZED TRAINING SYSTEM FOR MANDIBULAR CONTOUR SURGERIES: A BETTER WAY TO TRAIN PLASTIC SURGEONS AND ACHIEVE OPTIMAL RESULTS**
J. Qiao, X. Fu, F. Niu, L. Gui (China)*
- 09H37-09H42 | **DISCUSSION**
- 09H43-09H46 | **S4B-19 - EVALUATING THE PERCEPTION OF NASAL CHANGES AND ITS CORRELATION TO ANGULAR MEASUREMENTS AFTER ORTHOGNATHIC SURGERY**
D. C. Goldenberg, M. V. C. Ferreira, F. C. Goldenberg (Brazil)*
- 09H46-09H49 | **S4B-20 - SIMULTANEOUS MIDFACE ADVANCEMENT AND ORTHOGNATHIC SURGERY: A POWERFUL TECHNIQUE FOR MANAGING MIDFACE HYPOPLASIA AND MALOCCLUSION**
E. Vartanian, P. Goel, E. M. Wolfswinkel, A. Fahradyan, R. Garg, I. Khansa, J. A. Hammoudeh, M. M. Urata (United States)*
- 09H50-09H53 | **S4B-21 - A BEST-PRACTICE ALGORITHM FOR MAXILLARY DISTRACTION IN LATE-MIXED DENTITION: A SURGICAL AND SPEECH OUTCOMES ANALYSIS**
C. Brady, P. Ghareeb, J. T. Z. Chen, E. Pua, J. Riski, J. Williams (United States)*
- 09H53-09H58 | **DISCUSSION**
- 09H59-10H02 | **S4B-22 - SIMULTANEOUS RHINOPLASTY IN ORTHOGNATHIC SURGERY IN CLEFT PATIENTS**
R. Guerrero, A. Guerrero (Ecuador)*
- 10H02-10H05 | **S4B-23 - HIGH WING LE FORT I ADVANCEMENT IN CLEFT AND CRANIOFACIAL PATIENTS: ADDRESSING THE ESTHETICS OF MIDFACE DEFICIENCY AND CORRECTING MALOCCLUSION**
R. M. Ulma, K. Bennett, C. Vercler, S. Buchman (United States)*
- 10H05-10H10 | **DISCUSSION**
- 10H11-10H17 | **S4B-24 - TREACHER COLLINS SYNDROME: RESULTS OF A TREATMENT PROTOCOL WITH 25 YEARS OF FOLLOW-UP**
F. Molina and «Fernando Ortiz Monasterio» Foundation for Craniofacial Anomalies (Mexico)*
- 10H17-10H23 | **S4B-25 - MINIMAL DISRUPTION DISTRACTION IN SEVERE MANDIBULOFACIAL DYSOSTOSIS**
C. Gordon, S. Rapp (United States)*
- 10H23-10H29 | **S4B-26 - PROPOSED GUIDELINES FOR EAR RECONSTRUCTION IN TREACHER COLLINS-FRANCESCHETTI SYNDROME FOR A BETTER COOPERATION WITH CRANIO-FACIAL SURGEONS**
S. Guichard, F. Firmin (France)*
- 10H29-10H35 | **DISCUSSION**
- 10H35-11H05 | **Coffee break**

11H06-11H40 |

SESSION 5B: TRAUMA FACE ROOM 101

Chairs: Martin Evans (United Kingdom), Dov Charles Goldenberg (Brazil)

- 11H06-11H09 | **S5B-01 - USEFULNESS OF INTRA-OPERATIVE ULTRASOUND-GUIDED REDUCTION OF NASAL BONE FRACTURE**
A. Shimizu, Y. Shingyochi (Japan)*
- 11H09-11H12 | **S5B-02 - THE FREQUENCY OF CERVICAL SPINE INJURIES IN PEDIATRIC CRANIOMAXILLOFACIAL TRAUMA PATIENTS – THE 20-YEAR EXPERIENCE AT THE JOHNS HOPKINS HOSPITAL**
J. Lopez, H. Xun, H. H. Darrach, B. Kachniarz, R. J. Redett, P. N. Manson, A. H. Dorafshar (United States)*
- 11H13-11H16 | **S5B-03 - ORBITAL FLOOR FRACTURES: THE CORRELATION OF PATIENT REPORTED OUTCOMES TO RADIOGRAPHIC FINDINGS**
K. Gabrick, R. Iyengar, J. Persing, M. Alperovich (United States)*
- 11H16-11H21 | **DISCUSSION**
- 11H22-11H25 | **S5B-04 - OUTCOME ANALYSIS OF DELAYED COMPLEX ORBITAL RECONSTRUCTION VIA INTRAOPERATIVE NAVIGATION AND ENDOSCOPY**
J.-R. Yang, Y.-Y. Chu, B.-R. Lai, C.-F. Chen, H.-T. Liao (Taiwan)*
- 11H25-11H28 | **S5B-05 - NATIONAL TRENDS OF RESOURCE UTILIZATION AND OUTCOMES IN PEDIATRIC FACIAL FRACTURES AND THE IMPACT OF HEALTHCARE POLICY CHANGE**
H. Jenny, B. Massenburg, L. Musavi, J. Lopez, R. Redett, R. Yang (United States)*
- 11H29-11H32 | **S5B-06 - ORTHOPTIC VISION THERAPY I: ESTABLISHING A PROTOCOL FOR MANAGEMENT OF DIPLOPIA FOLLOWING ORBITAL FRACTURE REPAIR**
B. J. De Ruiter, B. Tannen, N. Tannen, E. H. Davidson (United States)*
- 11H32-11H40 | **DISCUSSION**

11H42-13H04 |

SESSION 6B: HFM ROBIN - PART I ROOM 101

Chairs: Joe McCarthy (United States), Pedro Santiago (United States)

- 11H43-11H46 | **S6B-01 - SAFETY ZONES FOR NEONATAL MANDIBULAR OSTEOTOMIES**
R. Siska, V. Emmerich, L. Lor, D. Massary, R. Flores, B. Pan, C. M. Runyan (United States)*
- 11H46-11H49 | **S6B-02 - TEMPOROMANDIBULAR JOINT ANKYLOSIS IN PATIENTS WITH CRANIOFACIAL MICROSOMIA: CAUSES, RECURRENCE AND CLINICAL OUTCOMES**
E. P. Ramly, J. W. Yu, B. S. Eisemann, O. Yue, A. R. Alfonso, R. S. Kantar, D. A. Staffenberg, P. R. Shetye, R. L. Flores (United States)*
- 11H50-11H53 | **S6B-03 - CONDYLE POSITION, CONDYLE MORPHOLOGY, AND TEMPOROMANDIBULAR JOINT SPACE IN ROBIN SEQUENCE BEFORE AND AFTER MANDIBULAR DISTRACTION OSTEOGENESIS**
A. Singh, S. Maniskas, K. Bruckman, C. M. Resnick, D. M. Steinbacher (United States)*
- 11H53-11H56 | **S6B-04 - QUANTIFICATION OF MANDIBULAR MORPHOLOGY IN PIERRE ROBIN SEQUENCE USING NOVEL 3-DIMENSIONAL TECHNIQUES**
A. S. Volk, J. O. Wirthlin, R. F. Dempsey, A. M. Narawane, E. P. Buchanan (United States)*
- 11H57-12H04 | **DISCUSSION**
- 12H05-12H08 | **S6B-05 - DEVICE MALFUNCTION DURING MANDIBULAR DISTRACTION IN INFANTS WITH ROBIN SEQUENCE**
M. Manrique, E. Mantilla-Rivas, M. K. Boyajian, J. Bryant, G. F. Rogers, A. K. Oh (United States)*
- 12H08-12H11 | **S6B-07 - MANDIBULAR DISTRACTION OSTEOGENESIS SHOULD BE THE FIRST CHOICE FOR SEVERE PIERRE-ROBIN SEQUENCE IN NEONATES**
Y. Ji (China)*
- 12H12-12H15 | **S6B-08 - IMPROVEMENTS IN ORAL FEEDING AFTER MANDIBULAR DISTRACTION FOR PIERRE ROBIN SEQUENCE**
A. Kaye, M. Foster, M. Tracy (United States)*
- 12H15-12H22 | **DISCUSSION**
- 12H23-12H29 | **S6B-09 - PSG-BASED PHENOTYPICAL CHARACTERIZATION OF OSA IN ROBIN SEQUENCE INCLUDING AROUSAL AND SLEEP-STAGE SPECIFIC INDICES**
J. Aziz, M. Manrique, E. Mantilla-Rivas, D. Lewin, J. Lew, G. F. Rogers, G. Nino, A. K. Oh (United States)*

- 12H29-12H32 | **S6B-10 - A COMPARISON OF THE MANDIBULAR DISTRACTION OSTEOGENESIS AND MANDIBLE TRACTION WITH WIRES IN INFANTS WITH PIERRE ROBIN SEQUENCE**
X. Liu, C. Dong, J. Li, S. Zhang (China)*
- 12H33-12H36 | **S6B-11 - POLYSOMNOGRAPHY DOES NOT CORRELATE WITH WEIGHT GAIN OR FAILURE TO THRIVE IN INFANTS WITH ROBIN SEQUENCE**
M. K. Boyajian, E. Mantilla-Rivas, M. S. Rana, L. Salinero, P. Tan, E. M. Rada, M. J. Boyajian, G. F. Rogers, A. K. Oh (United States)*
- 12H36-12H43 | **DISCUSSION**
- 12H44-12H47 | **S6B-12 - TREATED PIERRE ROBIN SEQUENCE USING PLACED ALLOGENIC ACELLULAR BONE MATRIX AND MANDIBULAR DISTRACTION OSTEOGENESIS IN THE NEONATE**
W. Shen, C. Jie, C. Jianbing, H. Tao, Y. Ji, S. Lijun (China)*
- 12H47-12H50 | **S6B-14 - MANDIBULAR DISTRACTION OSTEOGENESIS FOR THE TREATMENT OF PIERRE ROBIN SEQUENCE: THE UNIVERSITY OF PITTSBURGH EXPERIENCE**
Z. Macisaac, R. Bram, I. Ma, I. Chow, L. Block, J. Losee, J. Goldstein (United States)*
- 12H51-12H57 | **S6B-15 - LONG-TERM ORTHOGNATHIC CONSIDERATIONS IN THE PIERRE ROBIN SEQUENCE PATIENT**
M. J. Pfaff, F. Deleon, L. Le, C. Haveles, J. Ayeroff, J. P. Bradley, L. F. Wilson, J. C. Lee (United States)*
- 12H57-13H04 | **DISCUSSION**

13H05-14H05 | **Lunch & eposter presentations**

14H06-15H29 | **SESSION 7B: HFM ROBIN - PART II** ROOM 101
Chairs: Fernando Molina (Mexico), Eppo Wolvius (Netherlands)

- 14H07-14H10 | **S7B-01 - LARYNGOSCOPIC GRADE IMPROVEMENT AND DIFFICULT AIRWAY DESIGNATION IN INFANTS WITH ROBIN SEQUENCE UNDERGOING MANDIBULAR DISTRACTION OSTEOGENESIS**
N. Siegel, A. Shi, J. Lopez, N. Khavanin, H. Wang, H. Jenny, R. Redett, J. Walsh, J. Steinberg (United States)*
- 14H17-14H20 | **S7B-04 - RATE AND RISK FACTORS FOR REPEATED MANDIBULAR DISTRACTION OSTEOGENESIS IN INFANT PATIENTS WITH TONGUE BASED AIRWAY OBSTRUCTION**
P. A. Gerety, J. Cook, S. Sasor, S. S. Tholpady (United States)*
- 14H20-14H26 | **S7B-05 - VIVODOGMA PROJECT MAGNETIC ACTIVATION OF MANDIBULAR DISTRACTION OSTEOGENESIS : FIRST CADAVERIC STUDY**
N. Kogane, J. Dallard, A. Picard, J. Boisson, N. Kadlub (France)*
- 14H26-14H34 | **DISCUSSION**
- 14H35-14H38 | **S7B-06 - QUANTITATIVE ANALYSIS OF MASSETER MUSCLES IN PATIENTS WITH HEMIFACIAL MICROSOMIA**
X. Yang, W. Han, X. Chen, W. Mooi, M. A. Zin, G. Chai, Y. Zhang (China)*
- 14H38-14H44 | **S7B-07 - EARLIER DISTRACTION FOR HEMIFACIAL MICROSOMIA CONTRIBUTES TO COMPENSATORY MAXILLARY GROWTH: EARLY RESULTS OF A MULTICENTER PROSPECTIVE STUDY**
X. Chen, X. Yang, S. Gu, H. Li, M. A. Zin, W. Mooi, Y. Zhang, G. Chai (China)*
- 14H45-14H48 | **S7B-08 - ASSOCIATION OF A MUTATION IN ITPR1 WITH DOMINANTLY INHERITED HEMIFACIAL MICROSOMIA**
X. Wang, Z. Liu, H. Sun (China)*
- 14H48-14H54 | **DISCUSSION**
- 14H55-14H58 | **S7B-10 - CONCURRENT RIB GRAFTING AND ORTHOGNATHIC SURGERY IN THE TREATMENT OF SEVERE HEMIFACIAL MICROSOMIA IN SKELETALLY MATURE PATIENTS**
S. Mehta, J. A. Lee, S. Monahan, B. S. Pan, J. A. van Aalst, R. Campbell, H. M. Elhadi Babiker (United States)*
- 14H58-15H01 | **S7B-11 - TRACTION OSTEOGENESIS: A NOVEL APPROACH TO GROWING THE PRUZANSKY 3 MANDIBLE**
R. M. Vyas (United States)*
- 15H02-15H05 | **S7B-12 - PEDIATRIC MANDIBULAR DISTRACTION OSTEOGENESIS AND LONG-TERM DENTAL MORBIDITY**
W. Chen, J. Brooker, J. Barnett, J. Kim, J. Goldstein, J. Losee, L. Schuster (United States)*

15H06-15H12 | **DISCUSSION**

15H13-15H16 | **S7B-13 - OUTCOMES OF MANDIBULAR DISTRACTION FOR THE MANAGEMENT OF INFANTS WITH MICROGNATHIA AND UPPER AIRWAY OBSTRUCTION**

J. Shand, A. Heggie, R. Hunt, A. Pellicano, N. Kilpatrick, A. Adhikari (Australia)*

15H17-15H23 | **S7B-15 - DYNAMIC FACIAL REANIMATION IN CRANIOFACIAL MICROSOMIA**

K. Zuo, M. Heinelt, C. Forrest, E. Ho, R. Zuker, G. Borschel (Canada)*

15H24-15H29 | **DISCUSSION**

15H30-16H03 | **SESSION 8B: FACE RESEARCH - PART I** ROOM 101

Chairs: Hossein Khonsari (Hop Necker, Paris), Mitchell Stotland (United States)

15H31-15H34 | **S8B-01 - USING ARTIFICIAL INTELLIGENCE TO QUANTIFY FACIAL EXPRESSION OF EMOTION: A NOVEL APPROACH TO EVALUATING OUTCOME FOLLOWING FACIAL REANIMATION SURGERY**

T. Boonipat, M. Asaad, J. Lin, G. Glass, M. Stotland, S. Mardini (Qatar)*

15H34-15H37 | **S8B-02 - TOWARD AN OBJECTIVE OUTCOME IN FACIAL REANIMATION SURGERY: AN EYETRACKING STUDY**

T. Boonipat, A. Abu-Ghname, M. Stotland, S. Mardini (Qatar)*

15H37-15H42 | **DISCUSSION**

15H43-15H46 | **S8B-03 - NEW FACIAL REANIMATION METHOD WITH INTRA-ORAL TEMPORALIS TRANSFER FOR FACIAL NERVE PALSY**

S.-H. Park, E.-S. Yoon and Korea University College of Medicine (Republic of Korea)*

15H46-15H49 | **S8B-04 - ANALYSIS OF DIFFERENTIAL EXCURSION OF THE TEMPORALIS MUSCLE AND TENDON INSERTION ON THE CORONOID PROCESS: IMPLICATIONS IN LABBE PROCEDURE**

W. Gibreel, M. Suchyta, S. Mardini (United States)*

15H50-15H56 | **S8B-05 - QUALITY OF LIFE AFTER FACIAL REANIMATION WITH FACIAL CLINIMETRIC EVALUATION (FACE) SCALE IN A SERIES OF PEDIATRIC PATIENTS**

R. Kimia, D. J. Mackay, L. Magee, O. A. Jackson, S. P. Bartlett, P. D. Nguyen (United States)*

15H56-16H03 | **DISCUSSION**

16H04-16H34 | **Coffee break**

16H35-17H14 | **SESSION 9B: FACE RESEARCH - PART II** ROOM 101

Chairs: Hossein Khonsari (Hop Necker, Paris), Mitchell Stotland (United States)

16H36-16H42 | **S9B-01 - CRITICAL GROWTH PROCESSES FOR THE PATHOGENESIS OF A CONGENITAL MIDFACIAL HYPOPLASIA**

M. Katsube, S. Yamada, Y. Yamaguchi, T. Takakuwa, A. Yamamoto, H. Imai, A. Saito, A. Shimizu, N. Morimoto (Japan)*

16H42-16H48 | **S9B-04 - SOMATIC MAP2K1 MUTATIONS IN ARTERIOVENOUS MALFORMATION ARE RESTRICTED TO ENDOTHELIAL CELLS AND CONSTITUTIVELY ACTIVATE THE RAS/MAP2K1 PATHWAY**

J. A. Goss, P. J. Smits, D. J. Konczyk, A. K. Greene (United States)*

16H49-16H55 | **DISCUSSION**

16H56-16H59 | **S9B-05 - INHIBITION OF VASCULARIZED CARTILAGE REGENERATION BY LOADED CURCUMIN SCAFFOLD**

D. Cao, B. K. Kang, G. Zhou (China)*

16H59-17H02 | **S9B-06 - ROBOT ASSISTED SURGERY FOR MANDIBULAR ANGLE SPLIT OSTEOTOMY FULLY AUTOMATIC – A PRECLINICAL STUDY**

L. Li, H. Xu, G. Chai, L. Xie (China)*

17H03-17H06 | **S9B-07 - EARLY CLEFT REPAIR VS NAM: COMPARING PRE-OPERATIVE SEVERITY AND POST-OPERATIVE RESULTS UTILIZING A COMPUTER ENGINEERED AI SYSTEM**

P. Goel, E. Wolfswinkel, A. Fahradyan, W. Magee III, M. Urata, J. Hammoudeh (United States)*

17H07-17H14 | **DISCUSSION**

17H15-18H15 |

SESSION 10B: FACE RECONSTRUCTION ROOM 101

Chairs: David Staffenberg (United States), Davinder Singh (United States)

- 17H16-17H19 | **S10B-01 - HELICAL RIM DEFORMITIES IN NEWBORNS: RESULTS OF EAR MOLDING IN 57 CONSECUTIVE EARS**
D. Mazzaferro, A. Azzolini, J. Swanson, J. Taylor, S. Bartlett (United States)*
- 17H19-17H22 | **S10B-03 - THREE-DIMENSIONAL ASSESSMENT OF THE SKELETAL PLATFORM OF THE EAR IN PATIENTS WITH HEMIFACIAL MICROSOMIA**
*C. A. Derderian *, C. Zhou, R. R. Hallac (United States)*
- 17H23-17H29 | **DISCUSSION**
- 17H30-17H33 | **S10B-04 - USE OF FAT TRANSFERIN CONGENITAL CRANIOFACIAL DEFORMITIES - BABY SITTING PROCEDURE ?**
*A. Madaree * (South Africa)*
- 17H33-17H36 | **S10B-05 - CRANIOFACIAL SURGERY IN GHANA; "TEACH A MAN TO FISH» : A VIABLE MODEL FOR EXPANDING CARE CAPACITY IN DEVELOPING COUNTRIES**
S. Obiri-Yeboah, F. Nketia Boakye, A. Lamina, G. Plange Rhule, J. Johnston, P. Donkor, J. H. Grant (Ghana)*
- 17H37-17H40 | **S10B-06 - MULTIDISCIPLINARY ALGORITHM FOR THE MANAGEMENT OF AGGRESSIVE DESMOPLASTIC FIBROMAS OF THE HEAD AND NECK IN THE PEDIATRIC POPULATION**
C. M. Brady, V. Chien, M. Soldanska, J. Williams (United States)*
- 17H41-17H47 | **DISCUSSION**
- 17H48-17H51 | **S10B-08 - MICROSURGICAL REPLANTATION OF THE AMPUTATED SCALP AND FACIAL PARTS**
K. Kandel, H. H. Nguyen (Viet Nam)*
- 17H51-17H57 | **S10B-09 - ANATOMICAL STUDY AND MODEL FOR A FACE, MANDIBLE AND TEMPOROMANDIBULAR JOINTS ALLOTRANSPLANTATION**
T. Nunez-Villaveiran, V. Fahradyan, E. Dalla Pozza, M. Rezaei, R. Madero, R. L. Drake, L. Jellema, B. Bassiri-Gharb, F. Papay, A. Rampazzo (United States)*
- 17H58-18H01 | **S10B-10 - OCCLUSAL & DENTAL OUTCOMES FOLLOWING FACIAL ALLOTRANSPLANTATION**
D. M. Coombs, F. B. Tuncer, B. B. Gharb, R. Djohan, B. Gastman, S. Bernard, M. F. Hendrickson, G. Schwarz, R. Gurunluoglu, M. Siemionow, F. Papay, A. Rampazzo (United States)*
- 18H02-18H08 | **S10B-11 - MOBILE EYE SOCKET RECONSTRUCTION USING COSTAL CARTILAGES**
H. Motomura (Japan)*
- 18H08-18H15 | **DISCUSSION**

18H16-19H20 |

SESSION 11B: FACE MISCELLANEOUS ROOM 101

Chairs: Stephen Beals (United States), David Xiongzhen Mu (China)

- 18H16-18H22 | **S11B-01 - THE IRISH EXPERIENCE IN PAEDIATRIC PARRY ROMBERG SYNDROME- A CASE SERIES HIGHLIGHTING MANAGEMENT AND SURGICAL OUTCOMES**
A. Egan, A. Flynn, R. Watson, D. Murray (Ireland)*
- 18H22-18H28 | **S11B-03 - CLINICAL RESEARCH ON SYMMETRIC ANALYSIS AND SURGICAL TREATMENT OF MILD TO MODERATE PROGRESSIVE HEMIFACIAL ATROPHY**
J. Qiao, X. Fu, F. Niu, L. Gui (China)*
- 18H29-18H32 | **S11B-04 - SIMULTANEOUS FAT INJECTION WITH ADIPOSE-DERIVED STEM CELL AND FOREIGN BODY REMOVAL FOR COMPLICATIONS AFTER FOREIGN BODY INJECTION ON FACE**
S. J. Lee, S. H. Kim, H. J. Kim, H. S. Jeong, I. S. Suh (Republic of Korea)*
- 18H33-18H40 | **DISCUSSION**
- 18H41-18H47 | **S11B-05 - EVALUATING THE SUCCESS OF FACIAL FEMINIZATION SURGERY THROUGH ARTIFICIAL AND HUMAN INTELLIGENCE**
J. P. Bradley, S. Lu, M. Fisher, K. Chen, R. Cheng, M. DiMaggio (United States)*
- 18H47-18H50 | **S11B-08 - A COMPARATIVE ANALYSIS OF FAMILY ADAPTABILITY AND COHESION RATINGS BETWEEN COLLEGE STUDENTS WITH AND WITHOUT MAXILLOFACIAL DEFORMITIES IN CHINA**
X. Gao, W. Yuan (China)*

- 18H51-18H54 | **S11B-09 - REVISION MALARPLASTY GUIDED BY STRATEGIC CATEGORIZATION**
C. H. Hwang, M. C. Lee (Republic of Korea)*
- 18H54-18H57 | **S11B-10 - APPLICATION OF THREE DIMENSIONAL PRINTING TECHNOLOGY BASED ARTIFICIAL BONE IMPLANT IN REPAIR OF MANDIBULAR ASYMMETRICAL DEFORMITY**
Z. M. Aung, G. Cha, X. Chen, L. Lin, Y. Xin, W. Chen, W. Han, X. Yang, H. Xu, Y. Zhang (China)*
- 18H58-19H01 | **S11B-11 - OSSEOUS GENIOPLASTY: PREVENTION OF WITCH'S CHIN DEFORMITY WITH NO-DEGLOVING TECHNIQUE**
M. Fisher, S. Lu, K. Chen, B. Zhang, J. Lee, J. P. Bradley (United States)*
- 19H01-19H04 | **S11B-12-N /S15-06 - FEASIBILITY TESTING OF AUGMENTED REALITY PLATFORM FOR SURGICAL NAVIGATION IN CRANIOFACIAL RECONSTRUCTION**
H. L. Rudy, E. Uppal, J. Schreiber, E. S. Garfein, O. M. Tepper (United States)*
- 19H05-19H08 | **S11B-13-N/ S16-09 | SEPARATING CRANIOPAGUS TWINS: A 4 STAGE APPROACH USING 3D IMAGING TECHNOLOGY**
J. Schreiber, H. Rudy, C. S. Stern, R. Nasser, E. Uppal, K. Dowling, J. A. Farina Jr., J. T. Goodrich, O. Tepper (United States)*
- 19H08-19H20 | **DISCUSSION**



THURSDAY, SEPTEMBER 19, 2019

ISCFS CONGRESS – PROGRAMME DAY 3

07H00-08H30 | **BUSINESS MEETING** (for ISCFS members only) ROOM 101

08H35-10H30 | **SESSION 12: FACIOCRANIOSYNOSTOSIS – PART II** AMPHITHEATER LAVOISIER
Chairs: Linton Whitaker (United States), Scott Bartlett (United States)

- 08H35-08H38 | **S12-01 – LONG TERM FOLLOW UP ON BONE STABILITY AFTER MONOBLOC ADVANCEMENT IN SYNDROMIC CRANIOSYNOSTOSIS**
C. E. Raposo-Amaral, G. L. Zanco, R. Denadai, E. Ghizoni, C. A. Raposo-Amaral and SOBRAPAR Hospital group (Brazil)*
- 08H38-08H44 | **S12-03 - DEFINING CRITICAL AGES FOR ORBITAL SHAPE CHANGES AND OPTIC NERVE STRETCHING AFTER FRONTO-FACIAL ADVANCEMENT**
R. H. Khonsari, Q. Hennocq, J. Nysjö, R. Sandy, S. Haber, S. James, J. A. Britto, G. Paternoster, E. Arnaud (France)*
- 08H45-08H51 | **DISCUSSION**
- 08H52-08H58 | **S12-04 - INFLUENCE OF MONOBLOC/LEFORT III DISTRACTION ON THE DEVELOPING POSTERIOR MAXILLARY DENTITION AND ITS RESULTANT EFFECT ON ORTHOGNATHIC SURGERY**
M. Scott, R. Yang, M. Lanni, J. Swanson, S. Bartlett, J. Taylor (United States)*
- 08h58-09H01 | **S12-06 - ERUPTION OF MAXILLARY POSTERIOR PERMANENT MOLARS FOLLOWING EARLY CONVENTIONAL LE FORT III ADVANCEMENT AND EARLY AND LATE LE FORT III DISTRACTION**
M. N. Gonchar, J. M. Bekisz, B. H. Grayson, J. G. McCarthy, P. R. Shetye (United States)*
- 09H02-09H05 | **S12-07 - MORE OR LESS SPACE? THE EFFECTS OF FRONTOFACIAL DISTRACTION ON THE MAXILLARY ARCH IN SYNDROMIC CRANIOSYNOSTOSIS**
F. Angullia, W. R. Fright, A. A. Rezvani, J. Ong, N. U. O. Jeelani, R. D. Evans, D. J. Dunaway, D. S. Gill (United Kingdom)*
- 09H05-09h12 | **DISCUSSION**
- 09H13-09H16 | **S12-08 - PREDICTING SURGICAL OUTCOME FOR FRONTOFACIAL DISTRACTION SURGERY: A VALIDATED VECTOR-BASED MODEL**
F. Angullia, W. R. Fright, R. Richards, N. U. O. Jeelani, A. D. Linney, S. Schievano, D. J. Dunaway (United Kingdom)*
- 09H16-09H19 | **S12-09 - A MACHINE LEARNING APPROACH FOR OUTCOME PREDICTION OF MIDFACIAL BIPARTITION DISTRACTION IN APERT PATIENTS**
L. S. van de Lande, A. Papaioannou, S. Zafeiriou, D. J. Dunaway (United Kingdom)*
- 09H20-09H23 | **S12-12 - MONOBLOC MINUS LEFORT II: THE ROLE OF DIFFERENTIAL DISTRACTION FOR TREATMENT OF THE APERTS CRANIOFACIAL PHENOTYPE**
R. Yang, P. Shakoori, A. Azzolini, J. Swanson, S. Bartlett, J. Taylor (United States)*
- 09H24-09H31 | **DISCUSSION**
- 09H32-09H35 | **S12-13 - SPEECH AND LANGUAGE OUTCOMES IN CHILDREN WITH APERT SYNDROME BETWEEN 6;0 AND 8;11 YEARS; A CONSECUTIVE SERIES**
N. Behari, A. Horwood, C. Shipster (United Kingdom)*
- 09H35-09H41 | **S12-14 - THE CLASSIFICATION OF APERT SYNDROME, BASED ON CRANIAL VAULT SUTURE SYNOSTOSIS - DIFFERENT CRANIAL BASE ANGULATIONS AND AIRWAY COMPROMISE**
*X. Lu, R. Sawh-Martinez, A. J. Forte, R. Wu, R. Cabrejo, A. Wilson, D. Steinbacher, M. Alperovich, N. Alonso *, J. Persing (Brazil)*
- 09H42-09H45 | **S12-15 - ENDOSCOPIC STRIP CRANIECTOMY IN CHILDREN WITH APERT SYNDROME SAFELY IMPROVES HEAD GROWTH**
J. N. Riesel, C. P. Riordan, C. D. Hughes, S. J. Staffa, D. Zurakowski, J. G. Meara, M. Proctor (United States)*
- 09H46-09h53 | **DISCUSSION**
- 09h54-09h57 | **S12-16 - LE FORT III ADVANCEMENTS IN CHILDREN WITH SYNDROMIC CRANIOSYNOSTOSIS USING DIRECT FACIAL INCISIONS**
D. Johnson, F. P. Carls, S. A. Wall (United Kingdom)*

- 09h57-10h00 | **S12-17 - PAN-FACIAL DISTRACTION FOR SEVERE CRANIO-MAXILLOFACIAL RETRUSION: A NEW CONCEPT**
L. K. Cheung (Hong Kong)*
- 10H01-10H04 | **S12-18 - PATIENT SPECIFIC MODIFICATION OF A RIGID EXTERNAL DISTRACTION DEVICE FOR FRONTOFACIAL ADVANCEMENT PROCEDURES IN CRITICAL BONE CONDITIONS**
N. Adolphs, M. Schulz (Germany)*
- 10H04-10H07 | **S12-19 - HYBRID OSTEOGENESIS DISTRACTION SYSTEM FOR SYNDROMIC CRANIOSYNOSTOSIS**
S. Kobayashi, T. Fukawa (Japan)*
- 10h08-10h16 | **DISCUSSION**
- 10H16-10H19 | **S12-20-N / S3-05 - ANTERIOR SKULL BASE AND PERICRANIAL FLAP OSSIFICATION AFTER FRONTOFACIAL MONOBLOC ADVANCEMENT**
A. Morice, G. Paternoster, A. Ostertag, S. James, M. Cohen-Solal, R. H. Khonsari, E. Arnaud (France)*
- 10h19-10H22 | **S12-21-N / S14-02 - SUPRA-ORBITAL BONE THICKNESS IN PATIENTS WITH CROUZON SYNDROME AFTER FRONTO-FACIAL MONOBLOC ADVANCEMENT**
J. Bouaoud, R. H. Khonsari, S. James, G. Paternoster, E. Arnaud (France)*
- 10H23-10H29 | **DISCUSSION**

10H30-11H00 | *Coffee break*

11H05-12H10 | **SESSION 13: HYPERTELORISM / CRANIOFACIAL CLEFTS**

AMPHITHEATER LAVOISIER

Chairs: S. Anthony Wolfe (United States), Rolando Prada (Colombia)

- 11H05-11H11 | **S13-01 - LOCAL FLAPS FOR FACIAL CLEFT TESSIER 3 AND 4 RECONSTRUCTION**
L. Zarasade (Indonesia)*
- 11H11-11H17 | **S13-02 - IMPROVEMENT OF EXOTROPIA IN PATIENTS WITH HYPERTELORISM CORRECTED BY FACIAL BIPARTITION**
K. Chen, P. Duwuri, J. P. Bradley, H. Kawamoto (United States)*
- 11H17-11H20 | **S13-03 - FACIAL BIPARTITION UNDER THE AGE OF TWO FOR SEVERE FACIAL CLEFTING**
B. A. Toth (United States)*
- 11H21-11H28 | **DISCUSSION**
- 11H28-11H31 | **S13-04 - QUANTITATIVE ASSESSMENT FOR BONE RESORPTION FOLLOWING CRANIAL REMODELING IN ADOLESCENT HYPERTELORISM AND CROUZON SYNDROME PATIENTS**
J. Yuan, Y. Geng, Z. Yu, M. Wei (China)*
- 11H31-11H34 | **S13-05 - A NOVEL ORBITO ENCEPHALO CRANIAL DYSPLASIA VARIANT TESSIER 9 FACIAL CLEFT**
C. El Amm, N. Gross, L. Carter (United States)*
- 11H35-11H38 | **S13-06 - MANAGEMENT OF SEVERE SYNDROMIC HYPERTELORISM, A COMPREHENSIVE APPROACH**
C. Gordon, E. Curry, S. Rapp (United States)*
- 11H38-11H41 | **S13-07 - FLOATING FRONTAL FLAP COMBINED WITH INVERTED U-SHAPED OSTEOTOMY PROCEDURE IN ORBITAL HYPERTELORISM SECONDARY TO CRANIOSYNOSTOSES**
B. Yang, L. Chen (China)*
- 11H41-11H48 | **DISCUSSION**
- 11H48-11H51 | **S13-08 - SUPRAORBITAL BIPARTITION FOR THE MANAGEMENT OF ORBITAL HYPERTELORISM**
C. J. Vercler, R. M. Ulma, H. M. Aly, S. R. Buchman (United States)*
- 11H51-11H54 | **S13-09 - TREATMENT OF ORBITAL HYPERTELORISM WITH MIDFACE HYPOPLASIA USING EXTERNAL DISTRACTION AIDED FOUR-SEGMENTS CRANIOFACIAL OSTEOTOMY**
M. Wei, L. Xu (China)*
- 11H55-11H58 | **S13-10 - SURGICAL CORRECTION OF ORBITAL MALPOSITION: INDICATIONS FOR THE USE OF THE BOX OSTEOTOMY AND FACIAL BIPARTITION**
E. S. Nagengast, P. Goel, N. C. O. Munabi, A. Fahradyan, M. S. Williams, D. J. Gould, J. A. Hammoudeh, M. M. Urata (United States)*
- 11H58-12H01 | **S13-11 - COMPARISON BETWEEN EXPECTED AND ACTUAL OUTCOMES IN TEN CASES OF 3D SURGERY OF HYPERTELORISMS USING CUTTING GUIDES**
B. Laure, N. Travers, A. Listrat (France)*

12H02-12H11 | **DISCUSSION**

12H12-13H00 | **LECTURES** AMPHITHEATER LAVOISIER

12H12-12H15 | **Eric Arnaud introducing the “Tessier Medal” recipient: Pr David David**

12H15-13H00 | **LEC4 - TESSIER LECTURE: DELIVERY OF HEALTH CARE TO THE CRANIOFACIALLY DEFORMED: A LONG TERM GLOBAL VIEW**

David David (Australia)

13H00-14H00 | **Lunch & eposter presentations**

14H03-15H00 | **SESSION 14: FACIOCRANIOSYNOSTOSIS - PART III** AMPHITHEATER LAVOISIER
Chairs : David Xiongzhen Mu (China), Lars Kölby (Sweden)

14H05-14H11 | **S14-01 - MIDFACE DISTRACTION IN YOUNG CHILDREN WITH CRANIOFACIAL DYSOSTOSIS SYNDROMES**

P. Subash, S. Udayakumaran, A. Krishnadas, S. Pullan (India)*

14H11-14H14 | **S14-03 - SAETHRE-CHOTZEN SYNDROME: LONG-TERM OUTCOME OF A SYNDROME-SPECIFIC TREATMENT PROTOCOL**

B. K. Den Ottelander, M.-L. C. van Veelen, R. de Goederen, S. D. C. van de Beeten, M. H. G. Dremmen, S. E. Loudon, S. L. Versnel, K. F. M. Joosten, M. F. van Dooren, I. M. J. Mathijssen (Netherlands)*

14H15-14H20 | **DISCUSSION**

14H21-14H27 | **S14-04 - SPEECH, LANGUAGE AND HEARING IN CHILDREN WITH GENETICALLY-CONFIRMED MUELENKE SYNDROME: A MULTI-CENTRE RETROSPECTIVE REVIEW .**

S. Kilcoyne, N. Behari, W. Blumenow, L. Garvie, C. Luscombe, S. Overton, E. Scobie, C. Shipster, A. Wessels, A. Judge, M. Evans, G. James, D. Johnson, C. Parks, S. Wall, A. Wilkie (United Kingdom)*

14H27-14H30 | **S14-05 - LANGUAGE OUTCOMES IN A RETROSPECTIVE STUDY OF CHILDREN WITH TCF12 MUTATIONS, A SINGLE CENTRE STUDY**

W. Blumenow, L. Garvie (United Kingdom)*

14H31-14H36 | **DISCUSSION**

14H37-14H40 | **S14-06 - CLEIDOCRANIAL DYSPLASIA: REVIEW OF CLINICAL FINDINGS AND MULTIDISCIPLINARY TREATMENT IN AUSTRALIAN CRANIOFACIAL UNIT**

C. Jirapinyo, V. Deraje, G. Huang, S. Gue, P. Anderson, M. Moore (Australia)*

14H41-14H44 | **S14-07 - EAR PAVILION MORPHOLOGY IN PATIENTS WITH TCF 12 MUTATION**

P. Guerreschi, M. Vinchon, A. Wolber, G. Lacroix (France)*

14H44-14H47 | **S14-08 - A COMPREHENSIVE PHENOTYPIC STUDY OF ERF-RELATED CRANIOSYNOSTOSIS**

G. E. Glass, J. O'Hara, N. Canham, D. Cilliers, D. Dunaway, A. Fenwick, N.-O. Jeelani, D. Johnson, T. Lester, H. Lord, J. Morton, H. Nishikawa, P. Noons, C. Shipster, K. Schwiebert, A. Taylor-Beadling, S. Twigg, P. Vasudevan, S. Wall, A. O. M. Wilkie, L. Wilson (Qatar)*

14H48-14H51 | **S14-09 - MITIGATION OF SHP2 ACTIVATION PREVENTS FGFR2 SIGNALING INDUCED CRANIOSYNOSTOSIS**

M. J. Pfaff, Z. Ahmed, J. Ladbury, D. M. Steinbacher, J. Eswarakumar (United States)*

14H52-15H00 | **DISCUSSION**

15H02-15H59 | **SESSION 15: PLANNING/IMAGING - PART I** AMPHITHEATER LAVOISIER
Chairs: Jim Bradley (United States), David Johnson (United Kingdom)

15H05-15H08 | **S15-01 - STATISTICAL SHAPE MODELING AND RELATED TECHNIQUES AS A METHOD TO AID DIAGNOSIS, PLAN SURGERY AND ASSESS OUTCOME IN CRANIOFACIAL SURGERY**

D. J. Dunaway, A. Papaioannou, A. Borghi, L. van de Lande, P. Knoops, F. Angullia, O. N. Jeelani, S. Schievano, S. Zafeiriou (United Kingdom)*

15H08-15H11 | **S15-02 - DEVELOPMENT OF BONE CUTTING INSTRUMENTATION IN THE APPLICATION OF ROBOTIC ASSISTED CRANIOSYNOSTOSIS SURGERY USING THE DA VINCI PLATFORM**

C. Forrest, A. Gordon, T. Looi, G. Wu, J. Drake (Canada)*

15H12-15H15 | **S15-03 - COMPUTER-ASSISTED CRANIOFACIAL SURGERY - EXPERIENCES FROM THE COPENHAGEN CENTER FOR CRANIOFACIAL SURGERY**

T. Kofod, L. Boegeskov, J. S. Rasmussen (Denmark)*

15H16-15H23 | **DISCUSSION**

15H24-15H30 | **S15-04 - IMMERSIVE-TOUCH VIRTUAL-REALITY SURGICAL PLATFORM FOR CRANIOFACIAL SURGERY BY CRANIOFACIAL SURGEONS: TAKING BACK THE CONTROL**

L. Alkureishi, P. K. Patel, M. N. Cohen, L. Zhao, P. Banerjee (France)*

15H30-15H33 | **S15-05 - INTRAOPERATIVE NAVIGATION IN CRANIOSYNOSTOSIS BASED ON VIRTUAL SURGICAL PLANNING AND AN "IN HOUSE" TECHNIQUE**

S. Ochandiano, D. García-Mato, E. Bullejos, J. V. Darriba-Allés, R. García-Leal, J. Pascau, J. I. Salmerón (Spain)*

15H34-15H40 | **DISCUSSION**

15H41-15H44 | **S15-07 - THE VOSTARS PROJECT: A NEW WEARABLE HYBRID VIDEO AND OPTICAL SEE-THROUGH AUGMENTED REALITY SURGICAL SYSTEM FOR CRANIO-MAXILLOFACIAL SURGERY**

G. Badiali, F. Cutolo, L. Cercenelli, M. Carbone, R. D'Amato, F. Ruggiero, A. Bianchi, C. Marchetti, V. Ferrari (Italy)*

15H44-15H47 | **S15-08 - CONFORMITY OF 3D SURGICAL PLANS WITH ACTUAL RESULTS: A COMPARISON OF VSP ACCURACY BETWEEN FIVE DIFFERENT CRANIOFACIAL PROCEDURES**

S. Maniskas, K. Bruckman, D. Steinbacher (United States)*

15H48-15H51 | **S15-09 - BONE-SELECTIVE MRI AS A NONRADIATIVE ALTERNATIVE TO CT FOR CRANIOFACIAL IMAGING**

R. Zhang, S. Bartlett, H. Lee, X. Zhao, H. K. Song, F. Wehrli (United States)*

15H51-15H59 | **DISCUSSION**

16H00-16H30 | *Coffee break*

16H33-17H58 | **SESSION 16: PLANNING/IMAGING - PART II** AMPHITHEATER LAVOISIER

Chairs: Pravin Patel (United States), Daniel Nowinski (Sweden)

16H35-16H38 | **S16-01 - QUANTIFICATION OF HEAD SHAPE FROM 3D PHOTOGRAPHY FOR AUTOMATIC DETECTION OF CRANIOSYNOSTOSIS**

A. R. Porras, L. Tu, D. Tsering, G. Buck, E. Mantilla-Rivas, R. Keating, G. Rogers, M. G. Linguraru (United States)*

16H38-16H41 | **S16-02 - TRANSLATION OF PATIENT UNIQUENESS AND TREATMENT PLAN INTO PRE-SURGICAL PLANNING OF CRANIOPLASTY SURGERY USING WEB ACCESS 3D MODEL-BASED ICT TOOLS**

M. Maugeon, N. Francaviglia (Italy)*

16H42-16H45 | **S16-03 - EXPANDING A CRANIOFACIAL 3D SKULL DATABASE USING GENERATIVE ADVERSARIAL NETWORKS FOR THE DEVELOPMENT OF DEEP LEARNING IMAGE ANALYSIS**

J. Phillips, D. Singh, C. Forrest (Canada)*

16H46-16H52 | **DISCUSSION**

16H53-16H56 | **S16-04 - AUTOMATIC, RADIATION-FREE DETECTION OF CRANIOSYNOSTOSIS WITH DEEP LEARNING PREDICTION MODELS BASED ON 3D STEREOPHOTOGAMMETRY**

E. J. K. Bijlsma, G. De Jong, J. Meulstee, M. Wennen, H. Delye (Netherlands)*

16H56-17h02 | **S16-05 - REVOLUTIONISING DISTRACTION OSTEOGENESIS WITH THREE-DIMENSIONAL MRI AND A NOVEL 3D PRINTED TRANSFER DEVICE AND CARBON-PEEK BONE PINS**

K. A. Eley, G. Delso, M. Moazen, M. Javidan, J. Kraggie, S. R. Watt-Smith (United Kingdom)*

17H03-17H06 | **S16-06 - THE CASE FOR IN-HOUSE 3D VISUALISATION, SURGICAL PLANNING AND RAPID PROTOTYPING IN CRANIOFACIAL SURGERY**

K. Y. Chooi, J. Ong, G. James, O. Jeelani, D. Dunaway (United Kingdom)*

17H06-17H12 | **DISCUSSION**

17H13-17H16 | **S16-07 - CHANGING THE FACE OF CRANIOFACIAL IMAGING WITH FULLY AUTOMATED MRI BONE SEGMENTATION: ARE TWO SEQUENCES BETTER THAN ONE?**

K. A. Eley, G. Delso (United Kingdom)*

17H16-17H19 | **S16-08 - STATISTICAL SHAPE ANALYSIS OF FETAL FACE MORPHOLOGY FROM 3D ULTRASOUND IMAGES**
S. Schievano, A. Dall'Asta, J. Bruse, G. Paramasivam, C. Lees, D. Dunaway (United Kingdom)

17H20-17H28 | **DISCUSSION**

17H29-17H35 | **S16-10 - FIBROUS DYSPLASIA OF THE CRANIAL BASE-WHAT IS POSSIBLE AND PRACTICAL**
M. McKinnon, F. Gargano, H. H. Nguyen (United States)*

17H35-17H41 | **S16-11 - SUBCRANIOTOMY STRATEGY WITH NAVIGATION FOR OPTIC NERVE DECOMPRESSION IN FRONTOORBITAL FIBROUS DYSPLASIA**
X. Mu (China)*

17H42-17H48 | **S16-12 - LONG-TERM FOLLOW-UP SHOWS STABILIZATION OF VISION AND OPTIC CANAL CALIBER IN FIBROUS DYSPLASIA**
K. S. Pan, P. Fung, E. J. FitzGibbon, A. M. Boyce, M. T. Collins, J. S. Lee (United States)*

17H49-17H58 | **DISCUSSION**

18H00-19H00 | PANEL 3 - AESTHETIC AND COGNITIVE OUTCOMES: REOPERATIONS IN OPEN VS ENDOSCOPY PROCEDURES AMPHITHEATER LAVOISIER
Chairs: Giovanna Paternoster (Hop Necker, Paris), Jesse Taylor (United States)

18H00-18H08 | **PAN3.1 - CRITICAL THINKING REGARDING TIMING AND TREATMENT OF CRANIOSYNOSTOSIS**
John Persing (United States)

18H09-18H17 | **PAN 3.2 - OUTCOMES IN ENDOSCOPIC SURGERY FOR CRANIOSYNOSTOSIS: WHEN ARE REOPERATIONS NECESSARY?**
Mark R. Proctor (United States)

18H18-18H26 | **PAN3.3 - REDO'S OF 800 PRIMARY INTRACRANIAL PROCEDURES; WHAT MATTERS**
Irene Mathijssen (Netherlands)

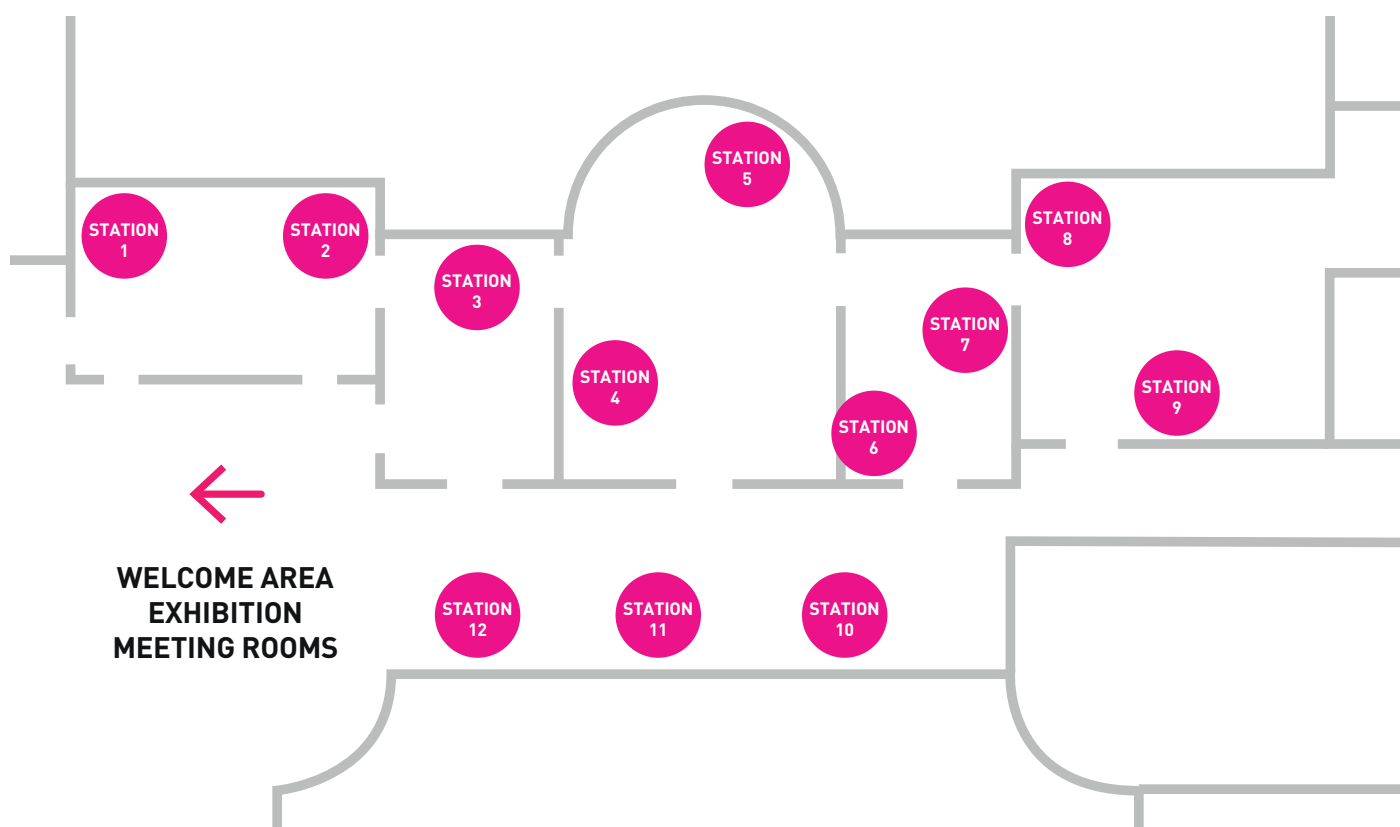
18H27-18H33 | **PAN3.4 - ENDOSCOPIC MANAGEMENT OF CRANIOSYNOSTOSIS: DO WE REALLY KNOW THE RISKS**
Steven Buchman (United States)

18H34-18H42 | **PAN3.5 - OUTCOMES OF ENDOSCOPIC CRANIOSYNOSTOSIS SURGERY AND CHANGES IN HEAD SHAPE OVER TIME**
Suresh Magge (United States)

18H42-19H05 | **DISCUSSION**

19H05 | ADJOURN AND CLOSURE OF MEETING

E-posters floorplan



STATION 1

17-1	NEURO/CRANIOSYNOSTOSIS	September 17, 2019	13H25	14H10
18-1	NEURO/CRANIOSYNOSTOSIS	September 18, 2019	13H15	14H00
19-1	NEURO/CRANIOSYNOSTOSIS	September 19, 2019	13H15	13H55

STATION 2

17-2	SYNDROMIC CRANIOSYNOSTOSIS	September 17, 2019	13H25	14H10
18-2	SYNDROMIC CRANIOSYNOSTOSIS	September 18, 2019	13H15	14H00
19-2	SYNDROMIC CRANIOSYNOSTOSIS	September 19, 2019	13H15	13H55

STATION 3

17-3	CRANIOSYNOSTOSIS/SAGITTAL	September 17, 2019	13H25	14H10
18-3	CRANIOSYNOSTOSIS/SAGITTAL	September 18, 2019	13H15	14H00
19-3	CRANIOSYNOSTOSIS/METOPIC	September 19, 2019	13H15	13H55

STATION 4

17-4	CRANIOSYNOSTOSIS/MISCELLEANOUS	September 17, 2019	13H25	14H10
18-4	CRANIOSYNOSTOSIS/MISCELLEANOUS	September 18, 2019	13H15	14H00
19-4	CRANIOSYNOSTOSIS/MISCELLEANOUS	September 19, 2019	13H15	13H55

STATION 5

17-5	CRANIOSYNOSTOSIS/CORONAL	September 17, 2019	13H25	14H10
18-5	IMAGING/PLANNING	September 18, 2019	13H15	14H00
19-5	IMAGING/PLANNING	September 19, 2019	13H15	13H55

STATION 6

17-6	IMAGING/PLANNING	September 17, 2019	13H25	14H10
18-6	HYPERTELORISM	September 18, 2019	13H15	14H00
19-6	CRANIOPLASTY	September 19, 2019	13H15	13H55

STATION 7

17-7	ORTHOGNATHIC	September 17, 2019	13H25	14H10
18-7	ORTHOGNATHIC	September 18, 2019	13H15	14H00
19-7	CRANIOFACIAL AESTHETICS	September 19, 2019	13H15	13H55

STATION 8

17-8	HEMIFACIAL MICROSOMIA/ROBIN	September 17, 2019	13H25	14H10
18-8	HEMIFACIAL MICROSOMIA/ROBIN	September 18, 2019	13H15	14H00
19-8	CRANIOSYNOSTOSIS/MISCELLEANOUS	September 19, 2019	13H15	13H55

STATION 9

17-9	RESEARCH	September 17, 2019	13H25	14H10
18-9	RESEARCH	September 18, 2019	13H15	14H00
19-9	CRANIOFACIAL RECONSTRUCTION	September 19, 2019	13H15	13H55

STATION 10

17-10	CRANIOFACIAL TRAUMA	September 17, 2019	13H25	14H10
18-10	CRANIOFACIAL TRAUMA	September 18, 2019	13H15	14H00
19-10	CRANIOFACIAL TRAUMA	September 19, 2019	13H15	13H55

STATION 11

17-11	CLEFT LIP PALATE	September 17, 2019	13H25	14H10
18-11	CLEFT LIP PALATE	September 18, 2019	13H15	14H00
19-11	AESTHETICS	September 19, 2019	13H15	13H55

STATION 12

17-12	CRANIOFACIAL RECONSTRUCTION	September 17, 2019	13H25	14H10
18-12	CRANIOSYNOSTOSIS/ COGNITIVE	September 18, 2019	13H15	14H00
19-12	CRANIOSYNOSTOSIS/MISCELLEANOUS	September 19, 2019	13H15	13H55

E-posters presentation

TUESDAY, SEPTEMBER 17, 2019

13H25-14H10 | E-POSTER AREA

DAY17 - STATION 1 - NEURO/CRANIOSYNOSTOSIS

- 13H25 - 13H30 | **17-1-001 | NEURONAVIGATION IN PLANNING SCALP INCISIONS FOR SINUS PERICRANII MALFORMATIONS**
N. Limoges, T. D. Willson, S. Durham (United States)*
- 13H30 - 13H35 | **17-1-002 | THE SURGICAL MANAGEMENT OF SKULL BASE TUMORS-A 18YEAR SINGLE INSTITUTION EXPERIENCE**
N. Maltzaris, D. Kotoulas, M. Kotrotsou, S. Stavrianos (Greece)*
- 13H35 - 13H40 | **17-1-003 | SERIAL VISUAL EVOKED POTENTIALS IN PATIENTS WITH CRANIOSYNOSTOSIS AND INVASIVE INTRACRANIAL PRESSURE MONITORING**
M. M. Haredy, A. Liasis, V. Fu, A. Davis, I. Pollack, J. Losee, S. Saied, K. Nischal, J. Goldstein (United States)*
- 13H40 - 13H45 | **17-1-004 | CRANIAL VAULT EXPANSION FOR POST-SHUNT CRANIOSYNOSTOSIS: INDICATION AND OUTCOME USING A VERSATILE TECHNIQUE**
A. Elsherbiny, M. Azzubi, S. Al-Karawi, M. Al-Qattan (Saudi Arabia)*
- 13H45 - 13H50 | **17-1-005 | AUTOMATIC MEASUREMENT OF INTRACRANIAL VOLUME FROM THREE-DIMENSIONAL PHOTOGRAPHY**
L. Tu, A. R. Porras, A. Enquobahrie, G. C. Buck, D. Tsering, S. Horvath, E. Mantilla Rivas, R. Keating, A. K. Oh, G. F. Rogers, M. G. Linguraru (United States)*
- 13H50 - 13H55 | **17-1-006 | TREATMENT OF HYDROCEPHALUS WITH VENTRICULO-PERITONEAL SHUNT ASSOCIATED WITH PREMATURE CRANIAL SUTURE FUSION**
J. R. Bryant, E. Mantilla-Rivas, J. W. Chao, S. N. Magge, J. S. Myseros, C. Oluigbo, R. Keating, A. K. Oh, G. F. Rogers (United States)*
- 13H55 - 14H00 | **17-1-007 | PRECISION MEDICINE FOR PATIENTS WITH POSITIONAL PLAGIOCEPHALY: A TOOL FOR PREDICTING ORTHOTIC HELMET TREATMENT OUTCOMES AND DURATION IN CLINIC**
L. Shock, K. Aldridge, A. Martin, S. Panchal, S. Chakraborty, A. Mukherjee, A. Muzaffar (United States)*
- 14H00 - 14H05 | **17-1-008 | LIMITS OF MEDICAL TREATMENT OF OSTEOPETROSIS AND ROLE OF SURGERY TO CONTROL ITS NEUROSURGICAL MANIFESTATIONS**
F. Di Rocco, C. Pasquali, A. Szathmari, Y. Bertrand, M. Rossi, C. Mottolese (France)*
- 14H05 - 14H10 | **17-1-009 | POOR CORRELATION OF INTRACRANIAL PRESSURE MEASUREMENTS BETWEEN LUMBAR PUNCTURE AND INTRACRANIAL WIRE MONITORING**
R. Bristol, T. Cole, C. Sarris (United States)*

DAY17 - STATION 2 - SYNDROMIC CRANIOSYNOSTOSIS

- 13H25 - 13H30 | **17-2-010 | NUMERICAL MODELLING TO ASSESS THE EFFECT OF SURGICAL PARAMETERS IN SPRING-ASSISTED POSTERIOR VAULT EXPANSION**
K. R. R. Ramdat Misier, P. G. M. Knoops, R. W. F. Breakey, C. J. J. M. Caron, M. J. Koudstaal, D. J. Dunaway, S. Schievano, O. Jeelani, A. Borghi (United Kingdom)*
- 13H30 - 13H35 | **17-2-011 | FRONTO-FACIAL MONOBLOC: A RARE CASE OF CENTROFACIAL MIXOMA**
G. Spuntarelli, M. I. Rizzo, F. Grussu, S. F. M. Marino, U. Urbani, M. Zama (Italy)*
- 13H35 - 13H40 | **17-2-012 | SAND DOLLAR AND STAVES TECHNIQUE: A NOVEL APPROACH TO TREATING UNILATERAL LAMBDOID CRANIOSYNOSTOSIS**
M. Masoumy, R. Dauser, R. Maricevich (United States)*

- 13H40 - 13H45 | **17-2-013-N / 17-12-107 | VIRTUAL COMPUTER PLANNING IN CRANIOFACIAL SURGERY: AN ANALYSIS OF 5 YEARS**
E. Wolvius, I. Mathijssen (Netherlands)*
- 13H45 - 13H50 | **17-2-014 | COMPARATIVE ANALYSIS OF OUTCOMES BETWEEN SURGICAL APPROACHES TO LAMBDROID CRANIOSYNOSTOSIS**
A. Rattani, C. Riordan, J. G. Meara, M. R. Proctor (United States)*
- 13H50 - 13H55 | **17-2-015 | A RARE SYNDROMIC CAUSE OF CRANIOSYNOSTOSIS- A REPORT OF A CASE AND REVIEW OF THE LITERATURE**
D. C. Laraway, A. Weber, C. Parks, M. Cooney, G. Hitchens (United Kingdom)*
- 13H55 - 14H00 | **17-2-016 | SPORTING ACTIVITY AFTER CRANIOSYNOSTOSIS SURGERY IN CHILDREN: A SOURCE OF PARENTAL ANXIETY**
T. Rotimi, P. Jung, J. Ong, N. U. O. Jeelani, D. Dunaway, G. James (United Kingdom)*
- 14H05 - 14H10 | **17-2-018 | MANAGEMENT OF CHIARI MALFORMATION IN SYNDROMIC CRANIOSYNOSTOSIS: EFFICACY OF CRANIAL EXPANSION SURGERY**
A. Matsushashi, K. Usami, H. Ogiwara (Japan)*

DAY17 - STATION 3 - CRANIOSYNOSTOSIS/SAGITTAL

- 13H25 - 13H30 | **17-3-019 | A CRANIOMETRIC ANALYSIS OF CRANIAL BASE AND CRANIAL VAULT DIFFERENCES IN PATIENTS WITH SAGITTAL SYNOSTOSIS**
A. Azzolini, D. Mazzaferro, K. Magoon, R. Yang, J. Swanson, S. Bartlett, J. Taylor (United States)*
- 13H30 - 13H35 | **17-3-020 | OBJECTIVE OUTCOMES IN SAGITTAL CRANIOSYNOSTOSIS: A COMPARISON OF THREE TECHNIQUES PERFORMED AT DIFFERENT AGES**
L. Galiay, C. Cross, M. Moazen, G. Paternoster, E. Arnaud, R. H. Khonsari (France)*
- 13H35 - 13H40 | **17-3-021 | COMPARISON OF INTRACRANIAL VOLUME AND CEPHALIC INDEX AFTER CORRECTION OF SAGITTAL SYNOSTOSIS WITH EITHER TWO OR THREE SPRINGS**
S. Fischer, P. Tarnow, G. Maltese, L. Kölby (Sweden)*
- 13H40 - 13H45 | **17-3-022 | CHANGES IN HEAD SHAPE OVER TIME AFTER ENDOSCOPIC STRIP CRANIECTOMY FOR SAGITTAL CRANIOSYNOSTOSIS**
S. N. Magge, H. Alexander, D. Tsering, A. R. Porras Perez, L. Tu, M. Linguraru, R. F. Keating, G. Rogers (United States)*
- 13H45 - 13H50 | **17-3-023 | ORBITAL SHAPE IN ADULT SCAPHOCEPHALY: A CONTROLLED 3D ASSESSMENT**
R. H. Khonsari, R. Sandy, Q. Hennocq, J. Nysjö, G. Giran, M. Friess, E. Arnaud (France)*
- 13H50 - 13H55 | **17-3-024 | A SUBTYPE OF SAGITTAL CRANIOSYNOSTOSIS HAS ENHANCED BILATERAL TEMPOROPARIETAL CONSTRICTION AND FRONTAL BOSSING: POINTERS FOR SURGICAL MANAGEMENT**
J. Goldstein, M. Lypka, C. Kaufman, D. Garcia (United States)*
- 13H55 - 14H00 | **17-3-025 | A CUSTOM HELMET DESIGN FOR SAGITTAL STRIP CRANIECTOMY: A 3D COMPARATIVE STUDY**
R. R. Hallac, A. Ramamurthi, C. Derderian (United States)*
- 14H00 - 14H05 | **17-3-026 | MULTIPLE OSTEOTOMIES WITH COMBINED DISTRACTION OSTEOGENESIS FOR NON-SYNDROMIC SCAPHOCEPHALY**
W. Shen, Gao Qingwen, Y. Ji, C. Jie, C. Jianbing (China)*
- 14H05 - 14H10 | **17-3-027 | THE THUNDERBIRD APPROACH FOR NASOFRONTAL OSTEOTOMIES ENHANCES NASOFRONTAL AESTHETICS IN SAGITTAL CRANIOSYNOSTOSIS**
J. Goldstein, M. Lypka, C. Kaufman, D. Garcia (United States)*

DAY17 - STATION 4 - CRANIOSYNOSTOSIS/MISCELLEANOUS

- 13H25 - 13H30 | **17-4-028 | COMPLICATIONS RELATED TO CRANIOSYNOSTOSIS SURGERY- EXPERIENCE FROM A NEWLY ESTABLISHED NATIONAL CENTRE**
D. Nowinski, P. Nilsson, P. Frykholm, P. Enblad (Sweden)*
- 13H30 - 13H35 | **17-4-029 | CRANIOSYNOSTOSIS AND RECONSTRUCTION OF THE AESTHETIC TEMPORAL SUBUNIT**
F. Liang, R. Ettinger, K. Bennett, C. Vercler, S. Buchman (United States)*
- 13H35 - 13H40 | **17-4-030 | THE EFFECT OF FRONTO-ORBITAL ADVANCEMENT ON FRONTAL SINUS DEVELOPMENT AND FUNCTION IN NON-SYNDROMIC AND SYNDROMIC CRANIOSYNOSTOSIS**
V. Deraje, C. Jirapinyo, A. Taranath, P. Anderson, M. Moore (Australia)*
- 13H40 - 13H45 | **17-4-031 | THE SYNOSTOSIS RESEARCH GROUP (SYNRG) OUTCOMES STUDY: EARLY RESULTS FROM A MULTI-CENTER, PROSPECTIVE CONSORTIUM FOR THE STUDY OF CRANIOSYNOSTOSIS**
L. A. Dvoracek, J. R. Kestle, A. Lee, R. C. Anderson, B. Gociman, K. B. Patel, M. D. Smyth, C. Birgfeld, I. F. Pollack, M. Tamber, T. Imahiyerobo, F. A. Siddiqi, J. A. Goldstein (United States)*
- 13H45 - 13H50 | **17-4-032 | OPTIMIZING RECONSTRUCTION IN CRANIOSYNOSTOSIS: A 12-YEAR REVIEW OF 162 NON-SYNDROMIC PATIENTS TREATED WITH A NOVEL TECHNIQUE**
E. Uppal, H. Rudy, S. Herman, C. Stern, D. Staffenberg, K. Dowling, J. Goodrich, O. Tepper (United States)*
- 13H50 - 13H55 | **17-4-033 | FRONTO-ORBITAL ADVANCEMENT & VAULT REMODELING FOLLOWING PRIMARY STRIP CRANIECTOMY**
A. Elbarbary, H. Mostafa (Egypt)*
- 13H55 - 14H00 | **17-4-034 | SPRINGS FOR NON-SYNDROMIC CRANIOSYNOSTOSIS: AN APPRAISAL OF THE CEPHALIC INDEX, THE FUNCTION AND THE AESTHETIC AT 12 YEARS OF CLINICAL AND RADIOLOGICAL FOLLOW-UP**
F. Molina and «Fernando Ortiz Monasterio» Foundation for Craniofacial Anomalies (Mexico)*
- 14H00 - 14H05 | **17-4-035 | TRANEXAMIC ACID USE IN INFANT CRANIOSYNOSTOSIS SURGERY: FRIEND OR FOE?**
P. A. Gerety, R. Danforth, J. Cook, W. Bennett Jr., S. S. Tholpady (United States)*
- 14H05 - 14H10 | **17-4-036-N / 18-12-213 | CRANIOFACIAL FELLOWSHIP TRAINED SURGEONS: WHERE ARE THEY NOW?**
A. L. Howarth, N. M. Kurnik, A. M. Rebecca, D. J. Singh (United States)*

DAY17 - STATION 5 - CRANIOSYNOSTOSIS/CORONAL

- 13H25 - 13H30 | **17-5-037 | DISPARITIES IN ACCESS TO HEALTH CARE IN 2018 FOR UNITED STATES CRANIOSYNOSTOSIS PATIENTS: THE INFLUENCES OF PRIVATE INSURANCE AND RURAL RESIDENCY**
J. Goldstein, M. Lypka, C. Kaufman, D. Garcia (United States)*
- 13H30 - 13H35 | **17-5-038 | UNUSUAL COMBINED CRANIOSYNOSTOSIS: CHALLENGES OF DIAGNOSIS AND TREATMENT**
T. Protzenko, C. E. D. B. Jucá, L. A. Bevilaqua, R. Viana, A. Bellas, R. S. de Oliveira (Brazil)*
- 13H35 - 13H40 | **17-5-039 | PAPILLEDEMA IN UNICORONAL SYNOSTOSIS: A RARE FINDING**
S. Van De Beeten, M. Cornelissen, R. Seeters, M.-L. van Veelen, S. Versnel, S. Loudon, I. Mathijssen (Netherlands)*
- 13H40 - 13H45 | **17-5-40-N / S6A-06 | ABNORMAL EXTRA-OCULAR MUSCLE POSITIONS IN ANTERIOR PLAGIOCEPHALY AND THE MECHANISM OF V-PATTERN STRABISMUS**
R. Touze, Y. Heuze, M. Robert, D. Bremond-Gignac, S. James, G. Paternoster, R. H. Khonsari, E. Arnaud (France)*
- 13H45 - 13H50 | **17-5-041 | CORONAL BAND SYNDROME: PREVIOUSLY NOT CLASSIFIED PHENOTYPE OF CRANIOSYNOSTOSIS**
S. Kyutoku, H. Iwanaga, T. Okamoto, Y. Kajimoto, A. Harada, K. Ueda (Japan)*
- 13H50 - 13H55 | **17-5-042 | UNICORONAL SYNOSTOSIS ORBITAL DYSMORPHOLOGY CORRECTION BY 3D PRINTING GUIDED FRONTOORBITAL ADVANCEMENT**
T. Elbanoby, A. Elbatawy (Egypt)*

- 13H55 - 14H00 | 17-5-043 | LONG TERM FOLLOW-UP OF PATIENTS WITH BRACHYCEPHALY: LESSONS LEARNED**
J. Puente Espel, J. Chang, G. Paternoster, R.-H. Khonsari, J. Chen, S. James, D. Renier, E. Arnaud (United States)*
- 14H00 - 14H05 | 17-5-044 | ANTERIOR POSITIONAL PLAGIOCEPHALY EXPLAINS THE PHENOTYPE OF FRONTOSPHEOIDAL SUTURE SYNOSTOSIS**
J. Chen, J. Espel, R. Khonsari, G. Paternoster, M. Rachwalski, S. James, E. Arnaud (United States)*
- 14H05 - 14H10 | 17-5-045 | CRANIAL VAULT ASYMMETRY AFTER DISTRACTION OSTEOGENESIS IN PATIENTS WITH UNICORONAL CRANIOSYNOSTOSIS**
B. Cronin, M. Zaldana-Flynn, M. Reghunathan, D. Vinocur, A. Gosman (United States)*

DAY17 - STATION 6 - IMAGING/PLANNING

- 13H25 - 13H30 | 17-6-046 | ANALYSIS OF THE ROLE OF CT DATA IN THE DIAGNOSIS AND TREATMENT DESIGN OF CONDYLAR OSTEOCHONDROMA**
H. Wei, Z. Zhao, J. Yu, Z. Liu, X. Wang (China)*
- 13H30 - 13H35 | 17-6-047 | ANALYSIS OF NORMAL KOREAN ORBIT MEAN SHAPE MODEL FOR STANDARD PREFORMED IMPLANT**
W. S. Jeong, M. J. Kim, J. W. Choi (Republic of Korea)*
- 13H35 - 13H40 | 17-6-048 | 3D COMPUTER-ASSISTED TWO-LAYER AND THREE-LAYER MODELS OF THE FACE AND AR TECHNOLOGY**
M. Katayama, K. Ueda, D. Mitsuno (Japan)*
- 13H40 - 13H45 | 17-6-049 | EVALUATION OF THREE-DIMENSIONAL SIMULATION ON OSTEOTOMY FOR JAW DEFORMITY**
K. Noda, T. Okumoto, S. Kondo (Japan)*
- 13H45 - 13H50 | 17-6-050 | ZEBRA STRIPING AND MOIRÉ MAPPING ASSESSMENT FOR HEMIFACIAL DEFORMITY**
Y. Takeichi, H. Motai, H. Iguchi, H. Tada, K. Hishida, Y. Itoh (Japan)*
- 13H50 - 13H55 | 17-6-051 | INTEGRATED DIGITAL DESIGN ASSISTANCE AS AN ADDITIONAL MODALITY IN CRANIOFACIAL SURGERY (CASE REPORT)**
I. L. Putri, D. Kuswanto, T. Apriawan (Indonesia)*
- 13H55 - 14H00 | 17-6-052 | DEEP LEARNING APPLICATIONS IN CRANIOFACIAL SURGERY**
D. Khechayan, R. Randall, D. Stow (United States)*
- 14H00 - 14H05 | 17-6-053 | THE 3D EVOLUTION OF THE NORMAL CRANIUM DURING THE FIRST 2 YEARS OF LIFE**
J. Meulstee, G. de Jong, W. Borstlap, T. Maal, H. Delye (Netherlands)*
- 14H05 - 14H10 | 17-6-054 | GUIDANCE TEMPLATES OF THE NORMAL FOREHEAD FOR USE IN CRANIAL VAULT REMODELING**
J. Domson, A. M. Lee, E. Shaffrey, C. Schaeffer, H. Syed, E. Arnaud, J. Black (United States)*

DAY17 - STATION 7 - ORTHOGNATHIC

- 13H25 - 13H30 | 17-7-055 | HEMIPALATAL DISCREPANCY IN TESSIER 7 FACIAL CLEFT RECONSTRUCTION: A PREVIOUSLY UNREPORTED PHENOMENON**
A. M. Kanth, M. Krevallin, O. A. Adetayo (United States)*
- 13H30 - 13H35 | 17-7-056 | SPECIAL DISTRACTION OSTEOGENESIS PERFORMED SEPARATELY FOR EACH BONE SEGMENT IN PATIENTS WITH BILATERAL CLEFT LIPS AND PALATES**
N. Mitsukawa, A. Saiga (Japan)*
- 13H35 - 13H40 | 17-7-057 | FACTORS INFLUENCING RELAPSE IN LEFORT I SURGERY IN THE CLEFT POPULATION**
L. Monshizadeh, W. Flapper, B. Grave, M. Moore, D. David (Australia)*
- 13H40 - 13H45 | 17-7-058 | SINGLE-SPLINT TECHNIQUE IN ORTHOGNATHIC SURGERY FOR PATIENTS WITH CLEFT LIP AND PALATE**
M. Yamashita, T. Kaneko, T. Miyanaga, M. Kishibe, K. Shimada, S. Kawakami (Japan)*

- 13H45 - 13H50 | **17-7-059 | EN-BLOC U-SHAPED OSTEOTOMY OF THE MANDIBLE AND CHIN FOR THE CORRECTION OF A PROMINENT MANDIBULAR ANGLE WITH LONG CHIN**
C. Lai* (China)
- 13H50 - 13H55 | **17-7-060 | PLASTIC SURGERY RESIDENT MILESTONE ACHIEVEMENT IN ORTHOGNATHIC TECHNICAL SKILLS: A TWO-SITE VALIDATION OF EDUCATIONAL MODELS**
K. A. Grunzweig*, J. Son, A. Kumar (United States)
- 13H55 - 14H00 | **17-7-061 | INFORMATION NEEDS OF CHINESE PATIENTS WITH ORTHOGNATHIC SURGERY IN DIFFERENT STAGES OF TREATMENT A QUALITATIVE RESEARCH**
B. Wang*, W. J. Yuan, H. Ruan, X. Wang (China)
- 14H00 - 14H05 | **17-7-062 | DIGITAL OCCLUSION SET UP OF ORTHOGNATHIC SURGERY FOR UNILATERAL CLEFT PATIENTS: COMPARISON WITH DENTAL MODEL APPROACH**
H. J. Seo*, R. Denadai, L.-J. Lo (Republic of Korea)
- 14H05 - 14H10 | **17-7-063 | VALUE-BASED MEDICINE: A RETROSPECTIVE EVALUATION OF VIRTUAL VS. TRADITIONAL SURGICAL PLANNING FOR ORTHOGNATHIC SURGERY**
L. O. Lin*, R. S. Zhang, I. C. Hoppe, J. W. Swanson, S. P. Bartlett, J. A. Taylor (United States)

DAY17 - STATION 8 - HEMIFACIAL MICROSOMIA/ROBIN

- 13H25 - 13H30 | **17-8-064 | PI3K-AKT SIGNALING PATHWAY WAS INVOLVED IN HEMIFACIAL MICROSOMIA BY INHIBITING BONE MODELING**
X. Chen*, G. Chai (China)
- 13H30 - 13H35 | **17-8-065 | WHOLE-EXOME SEQUENCING FOR MONOZYGOTIC TWINS DISCORDANT FOR HEMIFACIAL MICROSOMIA**
X. Chen*, F. Xu, G. Chai (China)
- 13H35 - 13H40 | **17-8-066 | TREATMENT STRATEGIES FOR HEMIFACIAL MICROSOMIA IN FUJITA HEALTH UNIVERSITY SCHOOL OF MEDICINE**
S. Kondo*, T. Okumoto, K. Noda (Japan)
- 13H40 - 13H45 | **17-8-067-N / S6B-13 | TRANS-FACIAL MINIMAL-DISSECTION MANDIBULAR DISTRACTION OSTEOGENESIS FOR NEONATAL AIRWAY OBSTRUCTION FROM PIERRE ROBIN SEQUENCE**
C. Runyan, J. D. Oliver, D. Massary, L. Lor, B. Pan, C. B. Gordon*, H. Elhadi-Babiker (United States)
- 13H45 - 13H50 | **17-8-068 | ADVANCED GENIOPLASTY OSTEOTOMY FOR AIRWAY CONSTRICTION IN THE UPPER RESPIRATORY TRACT**
H. Kino*, K. Ueda, D. Mitsuno, Y. Hirota, G. Ohashi (Japan)
- 13H50 - 13H55 | **17-8-069 | DISTRACTION OSTEOGENESIS IN MANDIBULAR DEFORMITIES IN HEMIFACIAL MICROSOMIA**
S. Najja*, G. Chebbi, H. Mabrouk, Z. Mziou, H. Khochtali (Tunisia)
- 13H55 - 14H00 | **17-8-070 | UTILITY OF THREE-DIMENSIONAL EVALUATION OF UPPER RESPIRATORY TRACT IN SEVERE CASES OF MICROGNATHIA THROUGH MANDIBULAR DISTRACTION**
T. Tamura*, S. Akita, Y. Yamaji, N. Mitsukawa (Japan)
- 14H00 - 14H05 | **17-8-071 | EFFICACY OF MANDIBULAR DISTRACTION FOR OSAS: A RETROSPECTIVE ANALYSIS OF 10 YEARS**
E. Wolvius*, P. V. D. Plas, I. Mathijssen, R. D. Goederen, K. Joosten (Netherlands)
- 14H05 - 14H10 | **17-8-072 | FINITE ELEMENT MODELING OF THE NEONATAL HYPOLASTIC MANDIBLE**
L. S. Humphries*, R. R. Reid, C. F. Ross, J. M. Collins, A. B. Taylor, A. R. Freire, A. C. Rossi, F. B. Prado (United States)

DAY17 - STATION 9 - RESEARCH

- 13H25 - 13H30 | **17-9-073 | OSTEOPROTEGERIN REDUCES OSTEOCLAST RESORPTION ACTIVITY WITHOUT AFFECTING OSTEOGENESIS ON NANOPARTICULATE MINERALIZED COLLAGEN GLYCOSAMINOGLYCAN**
J. D. Rouch, M. J. Pfaff, X. Ren, Q. Zhou, D. Foulad, M. J. Dewey, D. Bischoff, T. A. Miller, R. R. Reid, T.-C. He, D. T. Yamaguchi, B. A. Harley, J. C. Lee (United States)*
- 13H30 - 13H35 | **17-9-074 | APPLICATION OF MODIFIED RNA IN CRANIAL BONE REGENERATION**
J. Yuan, Y. Geng, W. Fu, M. Wei (China)*
- 13H35 - 13H40 | **17-9-075 | EFFECT OF STRONTIUM CITRATE ON BONE CONSOLIDATION IN A RABBIT MODEL OF MANDIBULAR DISTRACTION OSTEOGENESIS**
M. Bezuhyly, B. Taylor, M. Brace, M. Carter, P. Hong (Canada)*
- 13H40 - 13H45 | **17-9-076 | VIABILITY OF DICED CARTILAGE GRAFT WITH PERICHONDRIUM WRAPPING AND ATTACHED ONE SIDED, COMPARED TO WITHOUT PERICHONDRIUM: AN EXPERIMENTAL STUDY**
N. P. Hapsari (Indonesia)*
- 13H50 - 13H55 | **17-9-078 | NEXT GENERATION DNA SEQUENCING APPLICATION IN DIAGNOSIS OF FIBROUS OSSEOUS DISPLASIA OF SCULL BONES**
E. Sviridov, A. Drobyshev, R. Deev, N. Redko, A. Kadykova (Russian Federation)*
- 13H55 - 14H00 | **17-9-079 | THE OPTIMAL DURATION OF THE PERIOSTEOFASCIA IMPLANTATION FOR THE PREFABRICATION OF THE PRELAMINATED PERIOSTEOFASCIAL FLAP**
I. Lee, B. Lee (Republic of Korea)*
- 14H00 - 14H05 | **17-9-080 | INDIRECT ADENOSINE A2A STIMULATION PROMOTES OSTEOGENIC DIFFERENTIATION OF HUMAN PEDIATRIC OSTEOPROGENITOR CELLS**
A. Ibrahim, M. M. Wang, J. McKnight, B. N. Cronstein, R. L. Flores, P. G. Coelho (United States)*
- 14H05 - 14H10 | **17-9-081 | ERROR ANALYSIS OF A SURGERY SIMULANTION SYSTEM FOR UNIDIRECTIONAL MANDIBULAR DISTRACTION OSTEOGENESIS USING BACKWARD INDUCTION METHOD**
X. Wang, H. Sun (China)*

DAY17 - STATION 10 - CRANIOFACIAL TRAUMA

- 13H25 - 13H30 | **17-10-082 | INTRA-OPERATIVE NAVIGATION ASSISTED SURGERY WITH 2-DIMENTION PLANNING FOR CORRECTION OF ORBITAL WALL FRACTURE RELATED SUNKEN EYE**
Y.-C. Yu (Taiwan)*
- 13H30 - 13H35 | **17-10-083 | DEVELOPMENT OF AN ANATOMICAL THIN TITANIUM MESH PLATE AND PATIENT-MATCHED BENDING MODEL FOR ORBITAL FLOOR FRACTURE RECONSTRUCTION**
P. Wang, C.-H. Chen, C.-T. Chen, Y.-T. Wang, P.-H. Hsu, C.-L. Lin (Taiwan)*
- 13H35 - 13H40 | **17-10-084 | TRANSNASAL ENDOSCOPIC APPROACH FOR BLOW-OUT FRACTURE: COMPLICATED CASES**
J. Lee, S. Nam (Republic of Korea)*
- 13H40 - 13H45 | **17-10-085 | CONCOMITANT SKULL FRACTURES AMONG PEDIATRIC PATIENTS WITH FACIAL FRACTURES presented by B.-R. Lair**
J. Moffitt, A. A. Melin, D. J. Wainwright, J. F. Teichgraeber, M. N. Shah, M. R. Greives (United States)
- 13H45 - 13H50 | **17-10-086 | IMPACT OF HOSPITAL VOLUME ON THE TREATMENT OF MIDFACE FRACTURES – INPATIENT BURDEN AND CHARGES**
L. Musavi, H. Jenny, R. Yang, O. Aliu (United States)*
- 13H50 - 13H55 | **17-10-087 | NASOFRONTOMAXILLARYETHMOID FRACTURE PATTERNS: CHALLENGES TO CURRENT CLINICAL NOMENCLATURE**
*E. Mostafa, F. Lalezar, B. J. De Ruiter, A. Levin, D. Baghdasarian, E. H. Davidson * (United States)*
- 13H55 - 14H00 | **17-10-088 | IMPACT ON THE ORAL HEALTH-RELATED QUALITY OF LIFE IN PATIENTS WITH MANDIBLE FRACTURE RELATING TRAUMA AND SURGICAL TREATMENT**
W. Jeong, T. S. Oh, J. W. Choi (Republic of Korea)*

- 14H00 - 14H05 | **17-10-089 | CLINICAL TRIAL TO EVALUATE THE EFFICACY OF BOTULINUM TOXIN TYPE A INJECTION FOR REDUCING SCARS IN PATIENTS WITH FOREHEAD LACERATION – A PILOT STUDY**
S. H. Kim, S. J. Lee, H. J. Kim, H. S. Jeong, I. S. Suh (Republic of Korea)*
- 14H05 - 14H10 | **17-10-090-N / 19-10-296 | AN EPIDEMIOLOGICAL ANALYSIS AND COMPARISON OF SINGLE FRACTURE AND COMPLEX FRACTURE REPAIR: A NSQIP ANALYSIS**
S. J. Torabi, P. R. Brauer, P. P. Salehi, A. K. Ma, J. Y. Lee, Y. H. Lee (United States)*

DAY17 - STATION 11 - CLEFT LIP PALATE

- 13H25 - 13H30 | **17-11-091 | CASE REPORT: THERAPY ON HAEMANGIOMA PATIENT WITH CLEFT LIP AND PALATE**
S. I. Wahdini, I. Dachlan, I. L. Putri (Indonesia)*
- 13H30 - 13H35 | **17-11-092 | USE OF A MODIFIED ENHANCED RECOVERY PROTOCOL IN PRIMARY CLEFT PALATOPLASTY**
C. M. Brady, S.E. Hush, M. Soldanska, J.K. Williams (United States)*
- 13H35 - 13H40 | **17-11-093 | USE OF ACELLULAR DERMAL MATRIX IN CLEFT PALATE SURGERY, KING SAUD UNIVERSITY MEDICAL CITY EXPERIENCE**
B. A. Ahmad, M. A. Almarghoub, T. R. Alhumsi, A. E. Kattan, A. G. Gelidan (Saudi Arabia)*
- 13H40 - 13H45 | **17-11-094 | ASSESSING ADHERENCE TO RECOMMENDED GUIDELINES OF TIMELINESS OF PRIMARY OROFACIAL CLEFT SURGERY: IMPACT ON CLINICAL OUTCOMES**
K. Martin, O. Adetayo and Albany Medical College (United States)*
- 13H45 - 13H50 | **17-11-095 | FILLING THE VOID: INTERPOSITIONAL BUCCAL FAT PAD TO DECREASE FISTULA FORMATION AND MAINTAIN PALATAL LENGTH**
T. Thurston, J. Vargo, C. Vercler, S. Kasten, S. Buchman (United States)*
- 13H50 - 13H55 | **17-11-096 | SINGLE-STAGE DIRECT REPAIR FOR UNILATERAL CLEFT LIP, ALVEOLUS AND PALATE: PRE-SURGICAL ORTHODONTICS AND SURGICAL PROCEDURE**
A. Oyama, E. Funayama, T. Okamoto, Y. Yamamoto (Japan)*
- 13H55 - 14H00 | **17-11-097 | A NEW PRIMARY CLEFT LIP REPAIR TECHNIQUE THAT COMBINES THREE SURGICAL CONCEPTS**
E. Funayama, A. Oyama, M. Osawa, Y. Yamamoto (Japan)*
- 14H00 - 14H05 | **17-11-098-N / S7B-14 | MANAGEMENT OF PERSISTENT BUCCOPHARYNGEAL MEMBRANE WITH DISTRACTION OSTEOGENESIS AND PHARYNGEAL FLAP RECONSTRUCTION**
C. Gordon, S. Rapp (United States)*
- 14H05 - 14H10 | **17-11-099 | THE EFFECT OF THE CLEFT LIP SCAR AND CLEFT SIDE NOSTRIL WIDENING BY DIFFERENT SITES OF BOTULINUM TOXIN INJECTION**
T. Lu, P. K.-T. Chen (Taiwan)*

DAY17 - STATION 12 - CRANIOFACIAL RECONSTRUCTION

- 13H25 - 13H30 | **17-12-100 | VERSATILITY OF THE FREE VASTUS LATERALIS MUSCLE FLAP: ORBITAL RECONSTRUCTION AFTER REMOVAL OF COMPLEX VASCULAR MALFORMATION IN A PEDIATRIC PATIENT**
F. Grussu, U. Urbani, G. Spuntarelli, S. F. Marino, G. Ciprandi, M. Zama, L. Santecchia (Italy)*
- 13H35 - 13H40 | **17-12-102 | REVIEW OF PEDIATRIC CRANIOMAXILLOFACIAL RECONSTRUCTION: EXPERIENCE FROM A SINGLE, LARGE INSTITUTION**
R. F. Dempsey, A. S. Volk, M. Masoumy, K. E. Kania, M. Maricevich, R. S. Maricevich, W. C. Pederson, E. P. Buchanan (United States)*
- 13H40 - 13H45 | **17-12-103 | EXTERNAL PORT TISSUE EXPANSION IN THE PEDIATRIC POPULATION: CONFIRMING THEIR SAFETY AND EFFICACY**
E. Wolfswinkel, B. Azadgoli, A. Fahradyan, P. Goel, M. Tsuha, W. Magee III, J. Hammoudeh, M. Urata, L. Howell (United States)*
- 13H45 - 13H50 | **17-12-104 | SUPERFICIAL TEMPORAL ARTERY AND VEIN AS RECIPIENT VESSELS FOR FACIAL AND CRANIAL MICROSURGICAL RECONSTRUCTION**
M. Kambe, K. Takanari, K. Ebisawa, T. Miyanaga, T. Uchibori, Y. Nakamura, H. Ito, Y. Kamei (Japan)*

13H50 - 13H55 |

17-12-105-N / 19-11-301 | ANTHROPOMETRIC STUDY OF HUMAN EAR: A BASELINE DATA FOR FIRST STAGE MICROtia RECONSTRUCTION

A. T. Prasetyo, I. L. Putri (Indonesia)*

13H55 - 14H00 |

17-12-106 | CRANIOPLASTY WITH CUSTOM-MADE TITANIUM MESH FOR LARGE SKULL DEFECT AFTER FREE FLAP COVERAGE OF INFECTED SCALP DEFECT

S. J. Lee, S. H. Kim, H. J. Kim, H. S. Jeong, I. S. Suh (Republic of Korea)*

14H05 - 14H10 |

17-12-108 | THE ZYGOMATICOSPHEOIDAL ANGLE: A REFERENCE FOR SURGICAL NAVIGATION IN ZYGOMATICOMAXILLARY COMPLEX FRACTURE REPAIR

B. J. De Rooter, A. Levin, D. Nash, G. Kamel, E. Mostafa, D. Baghdasarian, E. H. Davidson (United States)*



WEDNESDAY, SEPTEMBER 18, 2019

13H15-14H00 | E-POSTER AREA

DAY18 - STATION 1 - NEURO/CRANIOSYNOSTOSIS

- 13H15 - 13H20 | **18-1-109 | PEDIATRIC SKULL FRACTURE CHARACTERISTICS ASSOCIATED WITH DEVELOPMENT OF LEPTOMENINGEAL CYSTS IN YOUNG CHILDREN AFTER SKULL TRAUMA**
J. Lopez, J. Chen, A. Reategui, N. Khavanin, P. N. Manson, A. H. Dorafshar, R. J. Redett (United States)*
- 13H20 - 13H25 | **18-1-110 | MEASUREMENT OF INTRACRANIAL PRESSURE UNDER GENERAL ANESTHESIA IS NOT RELIABLE**
R. Bristol, C. Sarris (United States)*
- 13H25 - 13H30 | **18-1-111 | OSTEOPETROSIS LEADING TO SUBTOTAL LOSS OF THE VISCEROCRANIAL BONES**
H.-P. Howaldt, A. Howaldt, U. Kornak, J.-F. Wilbrand, S. Böttger (Germany)*
- 13H30 - 13H35 | **18-1-113 | RISK OF INTRACRANIAL EXTENSION OF CRANIOFACIAL DERMOID CYSTS ACCORDING TO LOCATION**
J. Burge, J. Overland, A. Holmes (Australia)*
- 13H35 - 13H40 | **18-1-114 | SURGICAL CHALLENGES OF ABNORMAL LOCATION OF ANTERIOR CEREBRAL ARTERY IN THE MANAGEMENT OF FRONTOETHMOIDAL MENINGOENCEPHALOCELE - ACFU EXPERIENCE**
V. Prasad, D. David, S. Santoreneos, M. Moore (Australia)*
- 13H40 - 13H45 | **18-1-115 | CENTRAL RETINAL ARTERY OCCLUSION FOLLOWING CALVARIAL EXPANSION FOR RAISED INTRACRANIAL PRESSURE**
G. Roumeliotis, S. Campbell, S. Das, J. Jayamohan, T. Lawrence, S. Magdum, S. Wall, D. Johnson (United Kingdom)*
- 13H45 - 13H50 | **18-1-116 | PRIMARY OSSEOUS PECOMA IN THE PAEDIATRIC CRANIOFACIAL SKELETON. A REPORT OF THE INDEX CASE**
W. Flapper, J. Diab, S. Santoreneos, L. Moore, T. O'Neill and The Australian Craniofacial Unit (Australia)*
- 13H50 - 13H55 | **18-1-117 | CRANIOMETER-APP - A NOVEL MOBILE SOFTWARE TO ASSESS CRANIAL DEFORMITY**
J.-F. Wilbrand, K. Sohrabi, M. Wilbrand, P. Fischer, H.-P. Howaldt (Germany)*

DAY18 - STATION 2 - SYNDROMIC CRANIOSYNOSTOSIS

- 13H15 - 13H20 | **18-2-118 | UNDIAGNOSED NORMOCEPHALIC PANCRANIOSYNOSTOSIS PRESENTING AS BILATERAL ABDUCENS NERVE PALSY**
M. Baron, L. A. Dvoracek, M. Bykowski, J. A. Goldstein, J. E. Losee (United States)*
- 13H20 - 13H25 | **18-2-119 | MULTIDISCIPLINARY MANAGEMENT OF CHILDREN WITH GENETICALLY CONFIRMED CROUZON SYNDROME: A RETROSPECTIVE REVIEW IN THE OXFORD CRANIOFACIAL UNIT**
M. J. Abukhder, H. Care, S. Wall, S. Magdum, S. Kilcoyne, J. Jayamohan, D. Johnson, A. Wilkie (United Kingdom)*
- 13H25 - 13H30 | **18-2-120 | A PROSPECTIVE STUDY OF FORCES IN CRANIOFACIAL DISTRACTION**
A. Wes, L. Lin, D. Mazzaferro, M. Hast, R. Zhang, S. Naran, S. Bartlett, J. Taylor (United States)*
- 13H30 - 13H35 | **18-2-121-N / 19-2-225 | ANALYSIS OF AIRWAY AND MIDFACE IN CROUZON SYNDROME**
A. J. Forte, X. Lu, P. Hashim, D. Steinbacher, M. Alperovich, J. Persing, N. Alonso (United States)*
- 13H35 - 13H40 | **18-2-122 | AN INTERNAL DISTRACTION DEVICE FOR MIDFACE DISTRACTION OSTEOGENESIS: THE NAVID SYSTEM TYPE Z'GOK**
T. Hirao, Y. Sakamoto, T. Sakamoto, T. Ishii, K. Kishi (Japan)*
- 13H40 - 13H45 | **18-2-123 | OUTCOMES IN INTERNAL VERSUS EXTERNAL MIDFACE DISTRACTION IN SYNDROMIC CRANIOSYNOSTOSIS: A SYSTEMATIC REVIEW**
A. A. Bertrand, K. J. Lipman, J. P. Bradley, J. Reidhead, J. C. Lee (United States)*

- 13H45 - 13H50 | **18-2-124 | THREE-DIMENSIONAL AIRWAY ANALYSIS IN APERT SYNDROME**
A. J. Forte, X. Lu*, P. Hashim, D. Steinbacher, M. Alperovich, J. Persing, N. Alonso (United States)
- 13H50 - 13H55 | **18-2-125 | POST-EXPANSION CRANIAL SHAPE AND DEFECT HEALING IN SAETHRE CHOTZEN BILATERAL CORONAL SYNOSTOSIS COMPARED TO NON-SYNDROMIC CONTROLS**
W. Adidharma, C. Purnell, M. Calis*, E. Mercan, R. A. Hopper (United States)
- 13H55 - 14H00 | **18-2-126 | SIMULTANEOUS LEFORT II DISTRACTION AND FRONTO-MALAR ADVANCEMENT: CORRECTING SEVERE MIDFACE RETRUSION IN A PATIENT WITH CROUZON'S SYNDROME**
S. De Stefano*, E. Nadal Lopez, M. Sabas (Argentina)

DAY18 - STATION 3 - CRANIOSYNOSTOSIS/SAGITTAL

- 13H15 - 13H20 | **18-3-127 | SURGICAL PROCEDURES OF NON-SYNDROMIC SAGITTAL CRANIOSYNOSTOSIS BY THE TYPE OF CRANIAL SHAPE**
D. Senda*, K. Shimoji, H. Mizuno, Y. Komuro (Japan)
- 13H20 - 13H25 | **18-3-128 | MULTIPLE TONGUE-IN-GROOVE TENONS REMOLDING CRANIOPLASTY IN LATE CORRECTION, MULTISUTURAL AND REVISION CRANIOSYNOSTOSIS SURGERIES**
C. Herlin*, G. Captier, M. Bigorre, E. Chang-Seng, T. Roujeau (France)
- 13H25 - 13H30 | **18-3-129 | EVALUATION OF SURGICAL OUTCOMES IN SAGITTAL CRANIOSYNOSTOSIS WITH 3D CURVATURE ANALYSIS - OPEN VERSUS ENDOSCOPIC TECHNIQUE**
D. Khechoyan*, D. Stow, C. Forrest, J. Drake, A. Kulkarni, J. Phillips (United States)
- 13H30 - 13H35 | **18-3-130-N / 19-2-226 | DOES VECTOR CORRELATE WITH IMPROVEMENT IN SLEEP APNEA FOLLOWING SYNDROMIC MIDFACE DISTRACTION?**
M. T. Liu*, C. A. Purnell, M. W. Evans, S. Kim, B. B. Massenburg, R. A. Hopper and Division of Plastic Surgery, Department of Surgery, University of Washington; Craniofacial Center, Seattle Children's Hospital in Seattle, Washington (United States)
- 13H35 - 13H40 | **18-3-131 | RADIATION-FREE 3D HEAD SHAPE AND VOLUME EVALUATION AFTER ENDOSCOPICALLY ASSISTED STRIP CRANIECTOMY FOLLOWED BY HELMET THERAPY FOR SCAPHOCEPHALY**
G. de Jong, J. Meulstee, E. van Lindert, W. Borstlap, T. Maal, H. Delye* and Craniofacial Team Nijmegen (Netherlands)
- 13H40 - 13H45 | **18-3-132 | COMPARISON OF PARENTAL SATISFACTION AND OUTCOMES OF STRIP CRANIECTOMY WITH HELMET VERSUS SPRING-MEDIATED REMODELING IN SAGITTAL CRANIOSYNOSTOSIS**
L. G. F. Smith, V. Shah, H. Duenas, A. E. Graver, L. S. Governale, G. D. Pearson, A. I. Drapeau* (United States)
- 13H45 - 13H50 | **18-3-133 | CALVARIAL VAULT RECONSTRUCTION FOR SAGITTAL CRANIOSYNOSTOSIS AFTER 1 YEAR OF AGE**
D. C. Nguyen, G. B. Skolnick, S. D. Naidoo*, M. D. Smyth, K. B. Patel (United States)
- 13H50 - 13H55 | **18-3-134 | MANAGEMENT OF SAGITTAL SYNOSTOSIS IN THE SYNOSTOSIS RESEARCH GROUP (SYNRG)**
B. Gociman*, F. Siddiqi, J. Goldstein, M. Smyth, R. Anderson, K. Patel, C. Birgfeld, I. Pollack, M. Tamber, T. Imahiyerobo, J. Kestle (United States)
- 13H55 - 14H00 | **18-3-135 | FRONTAL WIDENING AND REMODELING FOR SCAPHOCEPHALIC CHILDREN OLDER THAN ONE**
G. Paternoster*, H. Khonsari, S. Haber, X. L. Jing, S. James, X. Liu, C. Legros, E. Arnaud (France)

DAY18 - STATION 4 - CRANIOSYNOSTOSIS/MISCELLEANOUS

- 13H15 - 13H20 | **18-4-136 | SERIOUS COMPLICATIONS AFTER LE FORT III DISTRACTION OSTEOGENESIS IN SYNDROMIC CRANIOSYNOSTOSIS: EVOLUTION OF PREVENTIVE AND THERAPEUTIC STRATEGIES**
C. E. Raposo-Amaral, Y. Moresco de Oliveira, R. Denadai, C. A. Raposo-Amaral*, E. Ghizoni, T. M. D. M. Lameiro (Brazil)
- 13H20 - 13H25 | **18-4-137 | BENIGN FEVER IS VERY COMMON FOLLOWING TRANSCRANIAL SURGERY FOR CRANIOSYNOSTOSIS: PERSISTENT FEVER IS ASSOCIATED WITH COMPLICATIONS**
M. R. Bykowski*, A. M. Ayyash, L. A. Dvoracek, A. Konanur, M. Haredy, J. Daggett, J. E. Losee, J. A. Goldstein (United States)
- 13H25 - 13H30 | **18-4-139 | FRONTO-ORBITAL ADVANCEMENT REMODELLING (FOAR) - THE DEVELOPMENT OF AN IMPROVED TECHNIQUE IN MINIMISING BLOOD LOSS OVER 10 YEARS**
J. Jones*, D. Rodrigues, W. Lo, M. Evans, N. White, H. Nishikawa, S. Dover, E. Carver (United Kingdom)
- 13H30 - 13H35 | **18-4-140 | THE PATH TO TRANSFUSION FREE CRANIAL VAULT SURGERY THROUGH CONTINUED QUALITY AND SAFETY EVALUATION**
A. Beethe*, J. Kugler, R. Spitznagel, M. LeRiger, K. Pellegrino (United States)
- 13H35 - 13H40 | **18-4-141-N / 19-7-271 | TEMPORAL FAT GRAFTING IN CHILDREN WITH CRANIOFACIAL ANOMALIES**
A. Fahradyan*, P. Goel, W. Madeleine, D. Gould, M. M. Urata (United States)
- 13H40 - 13H45 | **18-4-142 | EFFECT OF PARENTAL ENGLISH PROFICIENCY ON PSYCHOSOCIAL FUNCTIONING IN CHILDREN WITH CRANIOFACIAL ANOMALIES**
H. Hoang*, E. Nahabet, M. J. Pfaff, F. S. De Leon, E. J. Volpicelli, H. M. Potemra, J. Lin, J. A. Zimmerman, J. P. Bradley, L. F. Wilson, J. C. Lee (United States)
- 13H45 - 13H50 | **18-4-143 | QUANTITATIVE EVALUATION OF TREATMENT FOR CRANIOSYNOSTOSIS FROM 3D PHOTOGRAPHY**
A. R. Porras*, L. Tu, S. N. Magge, D. Tsering, G. Buck, E. Mantilla-Rivas, A. Oh, R. Keating, G. Rogers, M. G. Linguraru (United States)
- 13H50 - 13H55 | **18-4-144 | TOMOGRAPHIC EXOPHTHALMOMETRY IN PATIENTS UNTIL 3 YEARS OF AGE**
D. C. Gomez Prada, R. Prada Madrid*, L. Trsitanchi (Colombia)
- 13H55 - 14H00 | **18-4-138 | GASTRO-OESOPHAGEAL REFLUX, GLUE EAR AND INTRACRANIAL HYPERTENSION: AN INVESTIGATION OF 182 CONSECUTIVE INFANTS IN THE OXFORD CRANIOFACIAL UNIT**
S. Kilcoyne*, E. Gallo, C. Bonini, S. Overton, S. Wall, J. Jayamohan, S. Magdum, P. Scully, A. Judge, D. Johnson (United Kingdom)

DAY18 - STATION 5 - IMAGING/PLANNING

- 13H15 - 13H20 | **18-5-145 | THE USE OF 3D PRINTING IN CRANIOSYNOSTOSIS SURGERY**
V. Ivanov*, A. Kim, W. Khachatryan (Russian Federation)
- 13H20 - 13H25 | **18-5-146 | PREOPERATIVE SIMULATION AND OPERATIVE FACILITATION OF FRONTO-ORBITAL REMODELING IN CRANIOSYNOSTOSIS USING A NOVEL TEMPLATE**
E. Watanabe*, K. Imai, N. Kunihiro, H. Motomura (Japan)
- 13H25 - 13H30 | **18-5-147 | CRANIAL SHAPE COMPARISON FOR AUTOMATED OBJECTIVE 3D CRANIOSYNOSTOSIS SURGERY PLANNING**
M. Tolhuisen, G. de Jong, R. van Damme, F. van der Heijden, H. Delye* (Netherlands)
- 13H30 - 13H35 | **18-5-148 | VIRTUAL PLANNING IN LE FORT III DISTRACTION OSTEOGENESIS**
H. J. Vercruyssen*, J. Rubio-Palau, N. Nadjmi, M. De Praeter, D. Dunaway (Belgium)
- 13H35 - 13H40 | **18-5-149-N / S9B-02 | USING AUGMENTED REALITY TO REMOTELY TEACH CLEFT SURGERY: BUILDING LONG- TERM INTERNATIONAL CAPACITY AND SUSTAINABILITY**
R. M. Vyas* (United States)
- 13H40 - 13H45 | **18-5-150-N / 19-7-267 | DISCOVERING THE TRUE RESOLUTION OF POSTOPERATIVE SWELLING AFTER RHINOPLASTY USING 3-DIMENSIONAL PHOTOGRAPHIC ASSESSMENT**
J. Schreiber, E. Marcus, O. Tepper*, J. Layke (United States)
- 13H45 - 13H50 | **18-5-151 | DIAGNOSIS OF CRANIOSYNOSTOSIS: ARE CT SCANS NECESSARY?**
A. Fahradyan*, K.-A. Mitchell, G. Daneshgaran, A. Wexler, S. H. Francis (United States)

- 13H50 - 13H55 | **18-5-152-N / 19-7-269 | INTEGRATING 3D-PRINTED MODELS FOR SOFT TISSUE APPLICATIONS IN CRANIOFACIAL SURGERY**
J. Schreiber, H. Rudy, E. Uppal, E. Garfein, O. Tepper (United States)*
- 13H55 - 14H00 | **18-5-153 | MORPHOMETRIC ANALYSIS IN CRANIOSYNOSTOSIS RECONSTRUCTION SURGERY BASED ON STRUCTURED LIGHT SCANNING** presented by **O. Tepper**
D. García-Mato, M. García-Sevilla, S. Ochandiano, C. Navarro-Cuéllar, J. V. Darriba-Allés, R. García-Leal, J. Pascau (Spain)

DAY18 - STATION 6 - HYPERTELORISM

- 13H15 - 13H20 | **18-6-154 | PROTECTION OF MEDIAL CANTHAL LIGAMENT ATTACHMENT DURING CORRECTION OF HYPERTELORISMS**
Z. Yu, M. Wei and Unit of Craniofacial Surgery, Dept. of Plastic and Reconstructive Surgery, Shanghai Ninth People Hospital (China)*
- 13H20 - 13H25 | **18-6-155 | TESSIER NUMBER 3 FACIAL CLEFT: A CASE REPORT OF A NEW METHOD OF REPAIR AND A REVIEW OF LITERATURE OF AVAILABLE TECHNIQUE**
A. Elsherbiny, M. Al-Qattan (Saudi Arabia)*
- 13H25 - 13H30 | **18-6-156 | PAI SYNDROME IN A 4-MONTH-OLD INFANT: RARE LIPOMAS ALONG WITH MIDLINE FACIAL ALVEOLUS CLEFT**
I. Shiokawa, N. Ohshima, N. Mizumura, A. Momosawa (Japan)*
- 13H30 - 13H35 | **18-6-157 | A NOVEL PROPOSAL: ALGORITHM FOR THE STRATIFICATION AND TREATMENT OF THE HYPERTELORISM**
H. O. Malagon Hidalgo, M. L. Aguirre Cazares (Mexico)*
- 13H35 - 13H40 | **18-6-158 | TESSIER 9 LATERAL ORBITOCRANIAL CLEFT: A CLINICAL AND RADIOLOGICAL OVERVIEW OF AN UNDERDIAGNOSED ENTITY**
C. Amm (United States)*
- 13H40 - 13H45 | **18-6-159 | CRANIOFACIAL CLEFT: A CASE OF TESSIER 10 CLEFT WITH A NOVEL METHOD TO REPAIR LARGE BILATERAL COLOBOMAS**
J. M. Barnett, J. H. Pang, S. Herman, J. Lee, S. T. Stefko, J. E. Losee, J. A. Goldstein (United States)*
- 13H45 - 13H50 | **18-6-160 | INNOVATIVE 3-D PRINTED TITANIUM PLATES WITH INTEGRATED POSITIONING CONFIRMATION PROCESS FOR CORRECTION OF VERTICAL ORBITAL DYSTOPIA**
D. A. Staffenberg, B. S. Eisemann, D. S. Harter (United States)*
- 13H50 - 13H55 | **18-6-161 | VIRTUAL PLANNING AND DESIGN OF CUTTING AND POSITIONING TEMPLATES FOR FACIAL BIPARTITION: FIRST GLOBAL REPORT**
H. O. Malagon Hidalgo, M. L. Aguirre Cazares, A. Ibarra Reyes, E. Velazquez Varela (Mexico)*
- 13H55 - 14H00 | **18-6-162 | VARIANT OF FRONTO-ORBITAL ADVANCEMENT BEFORE HYPERTELORISM CORRECTION**
G. Paternoster, H. Khonsari, S. Haber, J. Britto, D. Benderbous, S. James, E. Vergnaud, C. Legros, E. Arnaud (France)*

DAY18 - STATION 7 - ORTHOGNATHIC

- 13H15 - 13H20 | **18-7-163 | ANTERIOR TONGUE MICROGLOSSIA: IMPACT ON FACIAL DEVELOPMENT AND PRESENTATION OF TWO CASES**
J. Puente Espel, R. D. Wallace, J. W. Thompson, P. Konofaos (United States)*
- 13H20 - 13H25 | **18-7-164 | A 28 YEAR REVIEW OF AIRWAY MANAGEMENT IN TREACHER COLLINS SYNDROME**
I. Okonkwo, V. Ratnamma, A. Rickart, V. Sharma, J. Navaratnarajah (United Kingdom)*
- 13H25 - 13H30 | **18-7-165 | EXPERIENCE WITH A NEW INTERNAL LE FORT I DISTRACTOR – THE TRANS-NASAL DEVICE**
M. Lypka, H. Hendricks (United States)*
- 13H30 - 13H35 | **18-7-166 | ACCURACY OF CUSTOM PRINTED PLATES FOR 2 JAW ORTHOGNATHIC SURGERY:**
R. Yang, P. Shakoory, A. Azzolini, J. Swanson, J. Taylor, S. Bartlett (United States)*
- 13H35 - 13H40 | **18-7-167 | THE DENTAL PATHWAY, AND A REVIEW OF THE ORAL HEALTH OF CHILDREN ATTENDING THE NATIONAL PAEDIATRIC CRANIOFACIAL CENTRE IN IRELAND.**
M. Kelly, E. McGovern, D. J. Murray (Ireland)*

- 13H40 - 13H45 | **18-7-168 | VIRTUAL PLANNING SEQUENCE FOR THE TREATMENT OF HEMIHYPERTROPHIA**
S. Shen*, X. Wang (China)
- 13H45 - 13H50 | **18-7-169 | ABLEPHARON MACROSTOMIA: LOWER LID RECONSTRUCTION AND A REVIEW OF THE LITERATURE**
N. Kurnik, L. Mansueto*, G. Leach, D. Singh (United States)
- 13H50 - 13H55 | **18-7-170 | CONGENITAL INFILTRATING LIPOMATOSIS OF THE FACE: STATE OF THE ART AND CASE REPORT**
D. C. Gomez Prada*, R. Prada Madrid (Colombia)
- 13H55 - 14H00 | **18-7-171 | SURGICAL APPROACH OF INFANTILE HEMANGIOMAS OF THE NOSE**
M. V. C. Ferreira*, D. C. Goldenberg, R. C. Lobato, V. Kharmandayan, R. Gemperli (Brazil)

DAY18 - STATION 8 - HEMIFACIAL MICROSOMIA/ROBIN

- 13H15 - 13H20 | **18-8-172 | EFFICACY OF ARTHROPLASTY OF THE TEMPEROMANDIBULAR JOINT AND INSERTION OF A MATTHEWS DISTRATOR AS TREATMENT FOR ANKYLOSIS OF THE JOINT. A CASE SERIES**
M. Kelly*, A. Bowen, D. Murray (Ireland)
- 13H20 - 13H25 | **18-8-173 | CRANIAL ANCHORED MANDIBLE DISTRACTION OSTEOGENESIS (CAMO)**
R. Dempsey, E. Dong, A. Volk, T. Truong, J. Wirthlin, E. Buchanan* (United States)
- 13H25 - 13H30 | **18-8-174 | LIMITATIONS OF DISTRACTION - A CHANCE FOR RECONSTRUCTION**
J. Wittig*, P. Schachner, S. Lux, A. Gaggl (Austria)
- 13H30 - 13H35 | **18-8-175 | ERROR ANALYSIS OF A SURGERY SIMULANTION SYSTEM FOR UNIDIRECTIONAL MANDIBULAR DISTRACTION OSTEOGENESIS**
X. Wang*, H. Sun, Z. Liu (China)
- 13H35 - 13H40 | **18-8-176 | MAXILLOFACIAL DEFORMATION IN CONTRALATERAL CONTROL SIDE IN HEMIFACIAL MICROSOMIA**
R. Shibasaki-Yorozuya*, Y. Watanabe, T. Akizuki, S. Nagata (Japan)
- 13H40 - 13H45 | **18-8-177-N / S7B-09 | SURGICAL CORRECTION OF SEVERE MANDIBULAR HYPOPLASIA IN HEMIFACIAL MICROSOMIA AT THE AUSTRALIAN CRANIOFACIAL UNIT**
L. Monshizadeh*, W. Flapper, B. Grave, M. Moore, D. David (Australia)
- 13H45 - 13H50 | **18-8-178 | PROSPECTIVE RANDOMIZED CONTROLLED CLINICAL TRIAL FOR THE TREATMENT OF MASSETER HYPOPLASIA IN HEMIFACIAL MICROSOMIA**
W. Han*, X. Yang, X. Chen, W. Mooi, M. A. Zin, G. Chai, Y. Zhang (China)
- 13H50 - 13H55 | **18-8-179 | CURRENT TRENDS IN SURGICAL AIRWAY MANAGEMENT OF NEONATES WITH ROBIN SEQUENCE**
A. K. Oh*, K. L. Fan, M. Mandelbaum, J. Buro, A. Rokni, J. W. Chao, G. F. Rogers (United States)
- 13H55 - 14H00 | **18-8-180 | ORTHODONTIC ELASTIC TRACTION ASSISTED THE HEMIFACIAL MICROSOMIA TREATMENT DURING ACTIVATION PERIOD OF DISTRACTION OSTEOGENESIS FOR HFM**
Q. Xiaohui*, C. Gang, S. Huifang, Y. Xianxian, Z. Yan (China)

DAY18 - STATION 9 - RESEARCH

- 13H15 - 13H20 | **18-9-181 | THE EFFECT OF HAEMOSTATIC AGENTS ON WOUND HEALING IN CROUZON MICE**
P. Anderson* and Australian Craniofacial Unit (Australia)
- 13H20 - 13H25 | **18-9-182 | DO MURINE MODELS WITH BOTH FGFR2 AND TWIST MUTATIONS HAVE A WORSE PHENOTYPE?**
P. Anderson* and Australian Craniofacial Unit (Australia)
- 13H25 - 13H30 | **18-9-183 | MULTISUTURAL SYNOSTOSIS AND SEVERE CRANIOFACIAL ASYMMETRY IN HUWE1-SYNDROME**
I. Mathijssen*, S. Versnel, J. Spoor, M.-L. V. Veelen (Netherlands)
- 13H30 - 13H35 | **18-9-184 | NOVEL VARIANT IN FGFR2 RESPONSIBLE OF FAMILIAL SCAPHOCEPHALY**
A. Szathmari, F. Di Rocco*, A. Gleizal, C. Paulus, P.-A. Beuriat, C. Mottolose, C. Collet (France)
- 13H35 - 13H40 | **18-9-185 | MUTATION SPECTRUM IN CHINESE PATIENTS WITH CRANIOSYNOSTOSIS**
Y. Wu*, M. Peng, J. Chen, X. Mu, S. Wang (China)

- 13H40 - 13H45 | **18-9-186 | SWEENEY-COX SYNDROME: A CASE REPORT. SURGICAL CONDUCT**
D. N. Camargo, A. S. Silva, V. L. N. Cardim (Brazil)*
- 13H45 - 13H50 | **18-9-187 | EXOME SEQUENCING IN CRANIOSYNOSTOSIS AT THE NORWEGIAN NATIONAL UNIT FOR CRANIOFACIAL SURGERY**
E. Tønne, B. Due-Tønnessen, U. Wiig, K. Tveten, M. A. Kulseth, K. Heimdal (Norway)*
- 13H50 - 13H55 | **18-9-188-N /19-12-310 | CROUZON WITH ACANTHOSIS NIGRICANS: A RARE VARIANT OF CROUZON SYNDROME DUE TO FGFR3 MUTATIONS - FUNDAMENTAL AND CLINICAL APPROACHES**
M. Cornille, R. H. Khonsari, N. Kaci, M. Bensidhoum, F. Di Rocco, Y. Heuzé, L. Legeai-Mallet (France)*
- 13H55 - 14H00 | **18-9-189 | THE RETENTIVITY OF OSTEOGENIC CAPACITY IN THE PREFABRICATED PERIOSTEOFASCIAL FLAP USING THE VASCULAR TISSUE TRANSFER**
I. Lee, B. Lee (Republic of Korea)*

DAY18 - STATION 10 - CRANIOFACIAL TRAUMA

- 13H15 - 13H20 | **18-10-190-N / 19-11-299 | SPORTS-RELATED INJURIES IN THE PEDIATRIC POPULATION: ANALYSIS OF FACIAL FRACTURE PATTERN AND MANAGEMENT STRATEGIES**
A. A. Dobitsch, N. C. Oleck, F. C. Liu, J. N. Halsey, I. C. Hoppe, E. S. Lee, M. S. Granick (United States)*
- 13H20 - 13H25 | **18-10-191-N / 19-9-288 | IMPLICATIONS OF FACIAL FRACTURE IN AIRWAY MANAGEMENT OF THE ADULT POPULATION: WHAT IS THE MOST EFFECTIVE MANAGEMENT STRATEGY?**
T.-M. T. Le, N. Oleck, A. Dobitsch, F. Liu, J. Halsey, E. Lee, M. Granick (United States)*
- 13H25 - 13H30 | **18-10-192 | PEDIATRIC FACIAL FRACTURES, CHARACTERISTICS AND PATTERNS IN THE UNITED STATES: A SURVEY OF RECENT TRAUMA QUALITY IMPROVEMENT PROJECT (TQIP) DATA**
K. E. Park, A. S. Elzanie, K. Alizadeh, A. Azim, R. Latifi, E. G. Zellner (United States)*
- 13H30 - 13H35 | **18-10-193 | VISUAL PERCEPTION OF ASYMMETRY IN PARRY ROMBERG DISEASE: A PRE- AND POST-SURGICAL EYETRACKING ANALYSIS**
T. Boonipat, A. Abu-Ghname, U. Bite, M. Stotland, S. Mardini (United States)*
- 13H35 - 13H40 | **18-10-194-N /19-5-249 | QUANTIFYING NORMAL HEAD FORM AND CRANIOFACIAL ASYMMETRY OF ELEMENTARY SCHOOL STUDENTS IN TAIWAN**
P. Chou, R. R. Hallac, A. A. Kane, L.-J. Lo (United States)*
- 13H40 - 13H45 | **18-10-195 | CHALLENGES OF PEDIATRIC NASO ORBITO ETHMOID FRACTURES**
C. El Amm (United States)*
- 13H45 - 13H50 | **18-10-196 | PATTERNS OF NASOORBITOETHMOID FRACTURES IN THE PEDIATRIC POPULATION**
T.-M. T. Le, N. Oleck, F. Liu, A. Dobitsch, J. Halsey, E. Lee, M. Granick (United States)*
- 13H50 - 13H55 | **18-10-197 | ESTABLISHING A PROTOCOL FOR CLOSED TREATMENT OF MANDIBULAR CONDYLE FRACTURES WITH DYNAMIC ELASTIC THERAPY**
G. Kamel, D. Baghdasarian, B. De Ruiter, A. Levin, E. Mostafa, E. Davidson (United States)*
- 13H55 - 14H00 | **18-10-198 | PERIORBITAL AND GLOBE INJURIES IN PEDIATRIC ORBITAL FRACTURES: A RETROSPECTIVE REVIEW OF 116 PATIENTS AT A LEVEL 1 TRAUMA CENTER**
J. N. Halsey, M. Argüello-Angarita, I. C. Hoppe, E. S. Lee, M. S. Granick (United States)*

DAY18 - STATION 11 - CLEFT LIP PALATE

- 13H15 - 13H20 | **18-11-199 | REVISION RATES OF CLEFT LIP AND NASAL DEFORMITIES IN NASOALVEOLAR MOLDING VERSUS LIP ADHESION**
I. Ickow, L. Dvoracek, J. Goldstein, L. Grunwaldt, J. E. Losee, L. Schuster, W. Chen, J. Brooker (United States)*
- 13H20 - 13H25 | **18-11-200 | SECONDARY CLEFT RHINOPLASTY IN 1720 PATIENTS: ARE NATIONAL PRACTICES CONSISTENT WITH GUIDELINES?**
F. Chouairi, S. J. Torabi, K. S. Gabrick, J. A. Persing, M. Alperovich (United States)*

- 13H25 - 13H30 | **18-11-201 | CONGENITAL MUSCLE HYPOTONIA IS ASSOCIATED WITH PLATYBASIA: A NOVEL PATHOANATOMIC BASIS FOR RECALCITRANT VELOPHARYNGEAL INSUFFICIENCY**
M. R. Bykowski, L. A. Dvoracek, M. D. Ford, A. J. Davit, L. J. Grunwaldt, J. A. Goldstein, J. E. Losee (United States)*
- 13H30 - 13H35 | **18-11-202 | THE CORRELATION BETWEEN SPEECH OUTCOMES AND THE AMOUNT OF MAXILLARY ADVANCEMENT AFTER ORTHOGNATHIC SURGERY IN PATIENTS WITH CLEFT LIP AND PALATE**
J. H. Ha, Y. T. Koo, H. Park, A. Yoo, J. Chung, S. Kim (Republic of Korea)*
- 13H35 - 13H40 | **18-11-203 | PARAMEDIAN CLEFT OF THE LOWER LIP: A FIRST CASE DESCRIBED IN THE LITERATURE**
J. Chauvel-Picard, J. Massardier, A. Gleizal (France)*
- 13H40 - 13H45 | **18-11-204 | SECONDARY CORRECTION OF WHISTLING DEFORMITY IN BILATERAL CLEFT LIP; REVISION OF OUR CASES**
M. I. Falguera, S. Heredero, A. San Juan, F. Alamillos, A. Dean (Spain)*
- 13H45 - 13H50 | **18-11-205 | A STUDY TO REVEAL VARIATION OF THE COMMON FACIAL VEIN, INCLUDING ITS RELATION TO IMPORTANT LOCAL STRUCTURES, WITH REGARD TO FACIAL RECONSTRUCTION**
C. Patel, D. Gahir (United Kingdom)*
- 13H50 - 13H55 | **18-11-206 | PRACTICAL APPLICATION OF AUGMENTED REALITY IN CRANIOFACIAL SURGERY**
C. El Amm, J. Potts, D. Sharber (United States)*
- 13H55 - 14H00 | **18-11-207 | DIFFERENCES IN PHENOTYPES OF CRANIOFRONTONASAL SYNDROME AND FRONTONASAL DYSPLASIA**
F. Guo, X. Mu (China)*

DAY18 - STATION 12 - CRANIOSYNOSTOSIS/ COGNITIVE

- 13H15 - 13H20 | **18-12-208 | EVALUATION OF A PEDIATRIC FACIAL PARALYSIS EDUCATION AND FAMILY SUPPORT DAY**
M. Heinelt, K. Zuo, J. Copeland, E. Ho, R. Zuker, G. Borschel (Canada)*
- 13H20 - 13H25 | **18-12-209 | CHILDREN'S UNDERSTANDING OF THEIR CRANIOFACIAL DIAGNOSES**
J. Rhodes, R. Trivelpiece (United States)*
- 13H25 - 13H30 | **18-12-210 | SENSITIVITY AND SPECIFICITY OF PARENTAL REPORT OF CONCERN FOR IDENTIFYING HEARING AND LANGUAGE DIFFICULTIES IN INFANTS WITH CRANIOFACIAL DIAGNOSES**
S. Kilcoyne, S. Overton, D. Johnson, S. Wall, A. Benson (United Kingdom)*
- 13H30 - 13H35 | **18-12-211 | THE SENSITIVITY AND SPECIFICITY OF PARENTAL REPORT OF CONCERN FOR IDENTIFYING LANGUAGE DISORDER IN CHILDREN WITH CRANIOFACIAL DIAGNOSES**
S. Kilcoyne, S. Menon Rajan, S. Overton, S. Wall, D. Johnson (United Kingdom)*
- 13H35 - 13H40 | **18-12-212 | THE IMPACT OF HUMANITARIAN TRANSFERS IN THE TREATMENT OF CRANIOFACIAL DISORDERS**
E. M. Rüegg, A. Bartoli, B. Pittet-Cuénod (Switzerland)*
- 13H40 - 13H45 | **18-12-213-N / 17-5-040 | ORBITAL ASYMMETRY IN INFANTS WITH ISOLATED UNI-CORONAL SYNOSTOSIS PRIOR TO SURGERY**
R. Sandy, T. A. Darvann, N. V. Hermann, J. Nysjö, R. H. Khonsari, E. Arnaud, S. James, G. Paternoster, S. Kreiborg (Denmark)*
- 13H45 - 13H50 | **18-12-214 | LARGEST REPORTED ODONTOGENIC MYCOBACTERIUM ABSCESSUS OUTBREAK AND TREATMENT OF A PEDIATRIC PATIENT WITH EXTENSIVE MANDIBULAR OSTEOMYELITIS**
N. Pourtaheri, M. Kanack, M. Mueller, D. Jaffurs, R. Vyas (United States)*
- 13H50 - 13H55 | **18-12-215 | DIRECT TO SURGERY? SURGICAL OUTCOMES IN PEDIATRIC PATIENTS WITH INFANTILE HEMANGIOMA: A RETROSPECTIVE CASE-CONTROL STUDY**
K. A. Grunzweig, N. Goel, C. Wee, A. Kumar (United States)*
- 13H55 - 14H00 | **18-12-216 | CONTEMPORARY CRANIOFACIAL MANAGEMENT AND OUTCOMES OF FRONTO-ETHMOID 'IVORY OSTEOMA'**
J. Jones, D. Zakei, M. Evans, D. Rodrigues, N. White, H. Nishikawa, S. Dover (United Kingdom)*

DAY19 - STATION 1 - NEURO/CRANIOSYNOSTOSIS

- 13H15 - 13H20 | **19-1-217 | IATROGENIC PAN-CRANIOSYNOSTOSIS AFTER CA REPLACEMENT THERAPY: TWO CASES OF THE HYPOPHOSPHATASIA**
S. Kyutoku, H. Iwanaga, Y. Kajimoto, K. Otani, K. Ueda (Japan)*
- 13H20 - 13H25 | **19-1-218 | ATLANTOAXIAL ROTATIONAL SUBLUXATION. A RARE COMPLICATION AFTER PEDIATRIC CRANIOFACIAL PROCEDURES. A SINGLE SURGEONS EXPERIENCE SPANNING 3 DECADES**
R. Yang, A. Azzolini, J. Swanson, J. Taylor, S. Bartlett (United States)*
- 13H25 - 13H30 | **19-1-219 | FRONTO-ORBITAL ADVANCEMENT AS A TREATMENT FOR RECURRENT VPS FAILURE**
A. Brisbin, L. Dvoracek, J. Losee, S. Greene, J. Goldstein (United States)*
- 13H30 - 13H35 | **19-1-220 | RELATION BETWEEN INTRACRANIAL STRUCTURAL CHANGE AND DEVELOPMENTAL OUTCOMES AFTER DISTRACTION METHOD FOR BI-CORONAL SYNOSTOSIS**
M. Kato, K. Mizutani, M. Nagakura (Japan)*
- 13H35 - 13H40 | **19-1-221 | SERIAL VISUAL EVOKED POTENTIALS FOR ASSESSMENT OF VISUAL FUNCTION IN CRANIOSYNOSTOSIS**
M. M. Haredy, J. Goldstein, A. Liasis, V. Fu, A. Davis, J. Losee, K. Koesarie, K. Nischal (United States)*
- 13H40 - 13H45 | **19-1-222 | ANALYSIS OF ADVERSE POSTOPERATIVE OUTCOMES AFTER CRANIOSYNOSTOSIS SURGERY**
S. Dong, A. Ayyash, J. Lee, L. Block, J. E. Losee, J. A. Goldstein (United States)*
- 13H45 - 13H50 | **19-1-223 | ABNORMAL COAGULATION AFTER CRANIOSYNOSTOSIS SURGERY**
D. Nielsen, I. Okonkwo, S. Wilmshurst, K.-B. Ong, D. Dunaway (United Kingdom)*
- 13H50 - 13H55 | **19-1-224 | LONG TERM QUALITY OF LIFE AND COMPLICATIONS WITH SYNDROMIC CRANIOSYNOSTOSIS.**
R. Kitabata, Y. Sakamoto, T. Miawa, K. Yoshida, K. Kishi (Japan)*

DAY19 - STATION 2 - SYNDROMIC CRANIOSYNOSTOSIS

- 13H15 - 13H20 | **19-2-225-N / S4B-11 | TWO AND THREE SEGMENTS SURGICALLY ASSISTED RAPID MAXILLARY EXPANSION: A CLINICAL TRIAL**
M. D. Pereira, G. P. R. Prado, L. M. Ferreira (Brazil)*
- 13H20 - 13H25 | **19-2-226- N / 18-3-130 | BEYOND VIRCHOW: UNDERSTANDING THE GROWTH VECTORS OF ISOLATED SAGITTAL SYNOSTOSIS IN INFANTS**
E. Mercan, A. M. Maga, M. Calis, N. Kurnick, R. A. Hopper (United States)*
- 13H25 - 13H30 | **19-2-227 | THE MIDFACE REVISITED: OUTCOMES OF INTRACRANIAL VERSUS SUBCRANIAL APPROACHES TO THE FRONTOFACIAL SKELETON**
N. C. Munabi, E. Nagengast, A. Fahradyan, D. Gould, P. Goel, M. Williams, J. Hammoudeh, M. Urata (United States)*
- 13H30 - 13H35 | **19-2-228 | IS IT SAFE TO USE FRONTO-FACIAL MONOBLOC ADVANCEMENT AND CUTTING GUIDES ON ADULT PATIENTS WITH A CROUZON SYNDROME?**
B. Laure, C. Queiros, N. Travers, A. Listrat (France)*
- 13H35 - 13H40 | **19-2-229-N / 19-8-280 | APERT SYNDROME MANAGEMENT: ROLE OF POSTERIOR DISTRACTION AND MONOBLOC FACIAL BIPARTITION DISTRACTION**
*C. E. Raposo-Amaral, Y. Moresco de Oliveira *, R. Denada, C. A. Raposo-Amaral, E. Ghizoni (Brazil)*
- 13H40 - 13H45 | **19-2-231 | FACTORS OF DECANNULATION AFTER LE FORT III DISTRACTION FOR SEVERE SYNDROMIC CRANIOSYNOSTOSIS WITH TRACHEOSTOMY**
K. Kawamoto, K. Imai, S. Taniguchi (Japan)*
- 13H45 - 13H50 | **19-2-232 | PREMATURE AGING IN CRANIOFACIAL DYSOSTOSES ASSOCIATED WITH FGFR2 GENE MUTATIONS**
E. M. Wolfe, S. A. Wolfe, S. Mathis, J. Hernandez-Rosa, S. Bhatti (United States)*

13H50-13H55 | **19-2-230-N / S2-03 | ADAPTED OCCIPITAL DISTRACTION IN SYNDROMIC AND MULTISUTURAL CRANIOSYNOSTOSIS**
I. Mathijssen, S. Versnel, J. Spoor, M.-L. V. Veelen (Netherlands)*

DAY19 - STATION 3 - CRANIOSYNOSTOSIS/METOPIC

- 13H15 - 13H20 | **19-3-233 | METOPIC SYNOSTOSIS: PRE AND POST-OPERATIVE EVALUATION OF CRANIOFACIAL DEFORMITY**
H. Matushita, N. Alonso, D. D. Cardeal, M. J. Teixeira (Brazil)*
- 13H20 - 13H25 | **19-3-234 | WHAT CRANIOMETRIC MEASURE BEST DEFINES METOPIC SYNOSTOSIS?**
A. H. Nassar, E. Mercan, B. B. Massenburg, C. Birgfeld, A. Lee, R. A. Hopper (United States)*
- 13H25 - 13H30 | **19-3-235 | HOW MUCH ORBITOFRONTAL DIFFERENCE ATTRACTS ATTENTION? USING EYE-TRACKING AS A PROXY FOR PERCEPTION OF DEFORMITY DUE TO METOPIC CRANIOSYNOSTOSIS**
M. P. Pressler, R. R. Hallac, J. R. Seaward, A. A. Kane (United States)*
- 13H30 - 13H35 | **19-3-236 | ASYMMETRIC CRANIECTOMY VERSUS VASCULARIZED PERICRANIAL FLAP IN PREVENTING PERSISTENT CRANIAL DEFECTS AFTER SAGITTAL CRANIECTOMY**
B. M. French, C. C. Wilkinson (United States)*
- 13H35 - 13H40 | **19-3-237 | THE METOPIC HINGE: A TECHNIQUE FOR ANTERIOR VAULT REMODELING IN METOPIC CRANIOSYNOSTOSIS**
K. Magoon, A. Azzolini, R. Yang, S. Bartlett, J. Swanson, J. Taylor (United States)*
- 13H40 - 13H45 | **19-3-238-N / S8A-01 | THE CC-UK: DEVELOPMENTAL OUTCOMES IN CHILDREN WITH METOPIC CRANIOSYNOSTOSIS AT 7 AND 10 YEARS OF AGE**
*L. Culshaw, A. Kearney, K. Piggott, H. Thornhill, H. Care, L. Dalton *, D. Dunaway, M. Evans, J. Horton, D. Johnson, P. Kennedy-Williams, L. Middleton-Curran, G. O'Leary, C. Parks, N. Rooney, G. Wright (United Kingdom)*
- 13H45 - 13H50 | **19-3-239 | THE OBSERVATION OF THE SPHENOID GREATER WING OF TRIGONOCEPHALY PATIENTS WITH COMPUTED TOMOGRAPHIC**
C. Dong (China)*
- 13H50 - 13H55 | **19-3-240 | GENERATING FICTIVE TRIGONOCEPHALY DATA USING A GENERATIVE ADVERSARIAL NETWORK TO PRODUCE DATA TO TRAIN DEEP LEARNING ALGORITHMS**
A. Sterkenburg, G. de Jong, J. Meulstee, H. Delye (Netherlands)*

DAY19 - STATION 4 - CRANIOSYNOSTOSIS/MISCELLEANOUS

- 13H15 - 13H20 | **19-4-241 | ANAESTHESIA FOR CRANIOPAGUS CONJOINED TWINS - LESSONS LEARNED FROM SUCCESSFUL SEPARATION OF 3 SETS IN A SINGLE CENTRE**
J. Herod, K. Ong, R. King, D. Dunaway, S. Wilmshurst, O. Jeelani (United Kingdom)*
- 13H20 - 13H25 | **19-4-242 | NASAL RECONSTRUCTION USING A CUSTOMIZED THREE-DIMENSIONAL-PRINTED STENT FOR CONGENITAL ARHINIA**
D. Y. Kim, Y. J. Lee, J.-W. Rhie (Republic of Korea)*
- 13H25 - 13H30 | **19-4-243 | SURGICAL NEONATAL TREATMENT OF CONGENITAL NASAL PYRIFORM APERTURE STENOSIS (CNPAS): PRESENTATION OF TWO CASES**
D. C. Goldenberg, V. Kharmandayan, M. V. Ferreira, R. Zatz, J. A. Goldenberg, R. Gemperli (Brazil)*
- 13H30 - 13H35 | **19-4-244 | PREDICTING BLOOD PRODUCT TRANSFUSION IN CRANIOFACIAL SURGERY PATIENTS USING MACHINE LEARNING BASED ON THE PEDIATRIC CRANIOFACIAL COLLABORATIVE GROUP**
A. Fernandez, L. Zamora, A. Jalali, L. Ahumada, P. Stricker, M. Rehman, J. Fackler and Pediatric Craniofacial Collaborative Group (United States)*
- 13H35 - 13H40 | **19-4-245 | EFFECTIVE INTERDISCIPLINARY MANAGEMENT OF CHRONIC OBSTRUCTIVE NASOPHARYNGEAL STENOSIS (NPS): A CASE STUDY**
C. M. Brady, V. Chien, G. Silva, E. Pua, M.W. Granger, J.E. Riski, M. Soldanska, J.K. Williams (United States)*
- 13H40 - 13H45 | **19-4-246 | THE BRACHIOCEPHALIC APPROACH FOR CENTRAL VENOUS CATHETERS PLACEMENT IN PEDIATRIC CRANIOFACIAL SURGERY**
V. Alessandri, V. Tortora, A. Vittori, G. Spuntarelli, S. Picardo, M. Zama, V. Caverni (Italy)*

- 13H45 - 13H50 | **19-4-247 | THE EFFICACY OF TRANEXAMIC ACID IN REDUCING BLOOD LOSS AND TRANSFUSION REQUIREMENTS IN CRANIOSYNOSTOSIS SURGERY - A LARGE SCALE COHORT STUDY**
A. Varidel, D. Marucci, M. Cooper, J. Loughran (Australia)*
- 13H50 - 13H55 | **19-4-248 | TREATMENT STRATEGY FOR CRANIOSYNOSTOSIS - SELECTION OF CONVENTIONAL CRANIOPLASTY, SUTURECTOMY OR DISTRACTION OSTEOGENESIS**
T. Akai, M. Yamashita, H. Iizuka, S. Kuroda (Japan)*

DAY19 - STATION 5 - IMAGING/PLANNING

- 13H15 - 13H20 | **19-5-249-N / 19-12-307 | EVALUATION OF CLINICAL OUTCOMES OF 3D PRINTING GUIDES COMBINE WITH NAVIGATION TECHNIQUE IN REDUCTION OF ZYGOMATICO-ORBITAL-MAXILLARY COMPLEX FRACTURES**
Z. M. Aung, G. Cha, X. Chen, L. Lin, Y. Xin, W. Chen, W. Han, X. Yang, H. Xu, Y. Zhang (China)*
- 13H20 - 13H25 | **19-5-250 | BLACK BONE MRI IS AS ACCURATE AS CT SCANS IN VIRTUAL SURGICAL PLANNING FOR FIBULA FLAP MANDIBULAR RECONSTRUCTION: A MEANS TO REDUCE RADIATION EXPOSURE**
W. Gibreel, M. Suchyta, S. Mardini (United States)*
- 13H25 - 13H30 | **19-5-251 | COMPARISON OF 3D RECONSTRUCTED MR IMAGES WITH CT: PROOF OF CONCEPT**
K. B. Patel, P. K. Commean, C. Eldeniz, G. B. Skolnick, M. Goyal, M. Smyth, U. Jammalamadaka, H. An (United States)*
- 13H30 - 13H35 | **19-5-252 | A 3D MORPHABLE HEAD MODEL FOR APERT AND CROUZON SYNDROME**
E. O' Sullivan, T. Papaioannou, S. Zafeiriou, D. Dunaway (United Kingdom)*
- 13H35 - 13H40 | **19-5-253 | VIRTUAL 3D PLANNING OF OSTEOTOMIES FOR CRANIOFACIAL SURGERIES**
B. Laure, N. Travers, A. Listrat (France)*
- 13H40 - 13H45 | **19-5-254 | PREOPERATIVE PLANNING USING THREE-DIMENSIONAL SIMULATION FOR CRANIO-MAXILLOFACIAL SURGERY**
T. Okumoto, S. Kondo (Japan)*
- 13H45 - 13H50 | **19-5-255 | THE ROLE OF 3D-PRINTING CRANIOFACIAL MODEL SIMULATION IN CONGENITAL CRANIOFACIAL SURGERY**
T. M.-H. Hsieh, G.-T. Shen, M.-F. Kuo, B.-C. Huang, T. J. Liu, Y.-F. Wu, H.-W. Yang, H.-C. Dai (Taiwan)*
- 13H50 - 13H55 | **19-5-256 | 3D PRINTED MODELS VS. VIRTUAL SURGERY SIMULATION IN CRANIOFACIAL SURGERY EDUCATION.**
C. El Amm, A. Franklin (United States)*

DAY19 - STATION 6 - CRANIOPLASTY

- 13H15 - 13H20 | **19-6-257-N / 19-12-305 | USE OF NOVEL TECHNOLOGIES IN THE ANALYSIS, PLANNING AND SURGERY FOR CRANIOPAGUS TWINS. PAST, PRESENT AND FUTURE**
J. Ong, K. Y. Chooi, G. James, F. D'Arco, R. Hayward, O. Jeelani, D. Dunaway (United Kingdom)*
- 13H20 - 13H25 | **19-6-258 | SPLIT CALVARIAL GRAFT FOR RECONSTRUCTION OF FULL THICKNESS CALVARIAL DEFECTS**
R. Agarwal, R. Agarwal (India)*
- 13H25 - 13H30 | **19-6-260 | THE UTILITY OF PARTICULATE BONE GRAFT CRANIOPLASTY FOR PRIMARY CRANIAL VAULT EXPANSION**
A. Azzolini, K. Magoon, R. Yang, J. Swanson, S. Bartlett, J. Taylor (United States)*
- 13H30 - 13H35 | **19-6-261 | ADULT CRANIOPLASTY RECONSTRUCTION WITH CUSTOMIZED CRANIAL IMPLANTS: DOES RADIATION THERAPY AFFECT OUTCOMES?**
K.-A. Mitchell, M. Belzberg, A. Asemota, N. Benshalom, C. Gordon (United States)*
- 13H35 - 13H40 | **19-6-262 | REPAIR OF CRANIAL BONE DEFECTS IN CHILDREN USING SYNTHETIC HYDROXYAPATITE CRANIOPLASTY (CUSTOMBONE®)**
P.-A. Beuriat, A. Szathmari, F. Di Rocco, C. Mottolese (France)*
- 13H40 - 13H45 | **19-6-263 | USE OF CUSTOM-MADE TITANIUM THREE-DIMENSIONAL IMPLANTS FOR A FRONTO-ORBITO-ZYGOMATIC RECONSTRUCTION IN RARE FACIAL CLEFTS: THE FIRST CASE REPORT**
J. Chauvel-Picard, A. Gleizal (France)*

13H45 - 13H50 | **19-6-264 | CRANIOPLASTY CRIPPLES & MICROSURGICAL RECONSTRUCTION**
N. Maltzaris, D. Kotoulas, M. Kotrotsou, S. Stavrianos (Greece)*

DAY19 - STATION 7 - CRANIOFACIAL AESTHETICS

- 13H15 - 13H20 | **19-7-265 | AESTHETIC GENIOPLASTY BASED ON STRATEGIC CATEGORIZATION**
H. S. Moon, C. H. Hwang, M. C. Lee (Republic of Korea)*
- 13H20 - 13H25 | **19-7-270-N / S6A-03 | BIFRONTOORBITAL REMODELING REVISITED: LONG TERM FOLLOW-UP OF OPERATED PATIENTS FOR SYNOSTOTIC PLAGIOCEPHALY**
J. Puente Espel, J. Chang, G. Paternoster, R.-H. Khonsari, J. Chen, S. James, D. Renier, E. Arnaud (United States)*
- 13H25 - 13H30 | **19-7-267 N / 18-5-150 | A 3D STATISTICAL FACE MODEL FOR SYNDROMIC CRANIOFACIAL PATIENTS**
A. Papaioannou, L. S. van de Lande, S. Zafeiriou, D. J. Dunaway (United Kingdom)*
- 13H30 - 13H35 | **19-7-268-N / 19-11-304 | AUTOLOGOUS FAT: CORRECTION OF SECONDARY DEFORMITIES DUE TO CRANIOSYNOSTOSIS**
B. A. Toth (United States)*
- 13H35 - 13H40 | **19-7-269-N / 18-5-152 | QUANTIFICATION OF BONE AND SOFT TISSUE DEFORMATIONS IN CRANIOFACIAL PATIENTS**
L. S. van de Lande, P. G. Knoops, O. Jeelani, S. Schievano, D. J. Dunaway (United Kingdom)*
- 13H40 - 13H45 | **19-7-266-N / 19-12-312 | THE USE OF A TENDON PULLEY TO ACHIEVE A MULTI-VECTOR LINE OF PULL IN LENGTHENING TEMPORALIS MYOPLASTY: A NEW TECHNIQUE TO OPTIMIZE THE SMILE**
W. Gibreel, M. Suchyta, S. Mardini (United States)*
- 13H45 - 13H50 | **19-7-272 | AUTOLOGOUS FAT GRAFT FOR CORRECTION OF FACIAL ASYMMETRY IN PEDIATRIC PATIENTS WITH PARRY-ROMBERG SYNDROME**
Y. Watanabe, T. Akizuki (Japan)*

DAY19 - STATION 8 - CRANIOSYNOSTOSIS/MISCELLEANOUS

- 13H15 - 13H20 | **19-8-273 | INTRACRANIAL VOLUME IN PATIENTS WITH SHUNT-RELATED CRANIOSYNOSTOSIS**
E. Mantilla-Rivas, L. Tu, A. R. Porras, H. Alexander, M. Manrique, J. R. Bryant, R. Keating, S. N. Magge, J. S. Myseros, C. Oluigbo, A. K. Oh, M. G. Linguraru, G. F. Rogers (United States)*
- 13H20 - 13H25 | **19-8-274 | INCIDENTAL DIAGNOSIS OF CRANIOSYNOSTOSIS AT THE ER: SERIES OF 331 PATIENTS**
M. Manrique, E. Mantilla-Rivas, J. Bryant, R. Keating, A. R. Porras, M. G. Linguraru, A. K. Oh, G. F. Rogers (United States)*
- 13H25 - 13H30 | **19-8-275 | ASSOCIATION OF CRANIOSYNOSTOSIS WITH CHARGE SYNDROME**
A. L. Alexander, A. Sethi, A. Tian, B. French (United States)*
- 13H30 - 13H35 | **19-8-276-N / 19-9-283 | NOTHING CAN STOP THE PEDIATRIC NEUROSURGEON: HOW TO MANAGE FRONTO-ORBITAL ADVANCEMENT WITHOUT BIOABSORBABLE PLATES**
T. Protzenko, A. Bellas, M. S. Pousa (Brazil)*
- 13H35 - 13H40 | **19-8-277 | DYNAMIC OSTEOTOMIES WITH EXPANDING SPRINGS FOR CRANIOESTENOSIS BY TRANSPLANTED OSTEOPETROSIS**
G. M. D. C. Peres, V. L. N. Cardim, A. S. Silva (Brazil)*
- 13H40 - 13H45 | **19-8-278 | OPTICAL COHERENT TOMOGRAPHY AND TRANSORBITAL ULTRASOUND IN PATIENTS WITH CRANIOSYNOSTOSIS. ARE THEY USEFUL TOOLS TO ASSESS INTRACRANEAL HIPERTENSION?**
H. Malagon, A. Ibarra (Mexico)*
- 13H45 - 13H50 | **19-8-279 | THE IMPORTANCE OF CLOSE NURSE FOLLOW UP DURING TREATMENT WITH CRANIOREMODELING ORTHOSIS FOR CRANIOSYNOSTOSIS**
T. Rambøl, R. Rapp, E. Nordahl, B. Due-Tønnessen (Norway)*

DAY19 - STATION 9 - CRANIOFACIAL RECONSTRUCTION

- 13H15 - 13H20 | **19-9-281-N / 17-12-105 | REPARATIVE PROCEDURE IN LARGE LOSSES OF SCALP AND BONE OF THE SKULL AFTER RESECTION OF ADVANCED RECURRENT TUMOR ABOUT 2 CASES**
S. Naija, G. Chebbi, M. Haythem, H. Brahem, R. Benmhamed, K. Akkeri (Tunisia)*
- 13H20 - 13H25 | **19-9-282-N / 17-12-101 | MANDIBULAR RECONSTRUCTION USING DOUBLE STEP DISTRACTION OSTEOGENESIS IN SEVERE BILATERAL MANDIBULAR RAMUS HYPOPLASIA**
S. De Stefano, E. Nadal Lopez, M. Sabas (Argentina)*
- 13H25 - 13H30 | **19-9-283-N / 17-10-090 | USING THE SUBMENTAL FLAP FOR RECONSTRUCTION OF TRAUMATIC FACIAL DEFECTS - A CASE SERIES STUDY**
M. Mohammadi Khah, R. Tabrizi (Islamic Republic of Iran)*
- 13H30 - 13H35 | **19-9-284 | HISTORY RECALL, TYPICAL WORLD WAR I INJURIES IN THE EGYPTIAN REVOLUTION 2011**
T. Elbanoby, A. Elbatawy (Egypt)*
- 13H35 - 13H40 | **19-9-285-N / 19-12-308 | MODIFIED TECHNIQUE FOR ELEVATION OF EAR FRAME IN MICROtia RECONSTRUCTION USING SPLIT THICKNESS COSTAL CARTILAGE GRAFT**
I. L. Putri (Indonesia)*
- 13H40 - 13H45 | **19-9-287 | RELATIONSHIP OF MANDIBULAR MORPHOLOGY TO EXTERNAL EAR VOLUME IN TREACHER-COLLINS SYNDROME**
X. Ma, L. Teng (China)*
- 13H45 - 13H50 | **19-9-288-N / 19-12-306 | APPLICATION OF AUGMENTED REALITY FOR THE POSITIONING OF RECONSTRUCTED EAR**
T. Nuri, K. Ueda, D. Mitsuno (Japan)*

DAY19 - STATION 10 - CRANIOFACIAL TRAUMA

- 13H15 - 13H20 | **19-10-289 | SKULL AND FACIAL FRACTURES RELATED TO DOG BITES AMONG CHILDREN: A CASE-CONTROL STUDY OF 60 FRACTURES**
B. Parent, M. R. Bykowski, S. Ramgopal, J. A. Goldstein, J. E. Losee (United States)*
- 13H20 - 13H25 | **19-10-290 | ORBITAL RECONSTRUCTION IN ADULT AND PEDIATRIC CRANIOFACIAL TRAUMA AND CONSERVATIVE MANAGEMENT OF THE ORBITAL WALLS**
J. Michienzi, A. Wolfe, C. E. Raposo-Amaral, R. Perez (United States)*
- 13H25 - 13H30 | **19-10-291 | THE FUNCTIONAL OUTCOME OF MANDIBULAR CONDYLAR HEAD FRACTURES**
B.-R. Lai, Y.-Y. Chu, C.-F. Chen, J.-R. Yang, H.-T. Liao (Taiwan)*
- 13H30 - 13H35 | **19-10-292 | AESTHETIC OUTCOME OF PRIMARY RHINOPLASTY OF SADDLE NOSE DEFORMITY IN NASO-ORBITAL ETHMOIDAL FRACTURES IN ASIAN PATIENTS**
Y.-Y. Chu, H. T. Liao (Taiwan)*
- 13H35 - 13H40 | **19-10-292-N / 18-10-191 | AN ANALYSIS OF PLATE FORM DISTORTION AFTER GRAFTING: CASES OF ORBITAL WALL FRACTURE**
M. Fukuba, M. Tamaki, T. Sekiguchi, M. Fujii, T. Shibuya, T. Yamamoto, K. Dogo, H. Yamaoka, M. Okochi, Y. Komuro (Japan)*
- 13H40 - 13H45 | **19-10-294 | THE ORBITAL INDEX: A NOVEL RISK STRATIFICATION SYSTEM FOR PREDICTING LATE ENOPHTHALMOS IN ORBITAL FLOOR FRACTURE MANAGEMENT**
B. J. De Ruiter, F. Lalezar, D. Baghdasarian, A. Levin, E. Mostafa, E. H. Davidson (United States)*
- 13H45 - 13H50 | **19-10-295 | THE APPLICATION RESEARCH OF TREATMENT ON OLD POST-TRAUMATIC ENOPHTHALMOS WITH CUSTOMIZED MEDPOR BASED ON DIGITAL TECHNOLOGY**
F. Niu, J. Chen, J. Qiao, X. Fu (China)*

DAY19 - STATION 11 - AESTHETICS

- 13H15 - 13H20 | **19-11-297 | FINITE ELEMENTAL BIOMECHANICAL SIMULATED ANALYSIS OF THE NASOLABIAL FOLD**
G. C. Chen, X. Lu (China)*
- 13H20 - 13H25 | **19-11-298 | A NOVEL METHOD OF CORRECTING LOWER FACIAL SYMMETRY: COMPUTER-ASSISTED SURGERY WITH MANDIBULAR OUTER CORTEX "SANDWICH" GRAFTING**
G. Wu, W. Shangguan (China)*
- 13H25 - 13H30 | **19-11-299- N / 18-10-190 | TRANSCONJUNCTIVAL INCISION FOR ORBITAL FRACTURES REPAIR. INCIDENCE OF COMPLICATIONS AND RECOMMENDATIONS TO AVOID THEM IN A MEDICAL CENTRE IN MÉXICO**
H. O. Malagón-Hidalgo, E. García-Cano, S. A. Mejía-Valero, J. E. Chang-Contreras (Mexico)*
- 13H30 - 13H35 | **19-11-300 | INTRAOPERATIVE 3-DIMENSIONAL RECONSTRUCTIVE SCANS ARE USEFUL FOR FACIAL FRACTURE TREATMENT IN HYBRID OPERATION ROOM**
Y. Terabe (Japan)*
- 13H35 - 13H40 | **19-11-302 | NASAL ANTHROPOMETRY ON FACIAL COMPUTED TOMOGRAPHY SCANS FOR RHINOPLASTY IN ASIANS**
S. J. Lee, H. J. Kim, S. H. Kim, H. S. Jeong, I. S. Suh (Republic of Korea)*
- 13H40 - 13H45 | **19-11-303 | OSSEOUS TRANSFORMATION WITH FACIAL FEMINIZATION SURGERY: IMPROVED ANATOMIC ACCURACY WITH VIRTUAL PLANNING**
J. P. Bradley, J. Deschamps-Braly, N. Bastidas, S. Lu, J. Lee (United States)*

DAY19 - STATION 12 - CRANIOSYNOSTOSIS/MISCELLANEOUS

- 13H15 - 13H20 | **19-12-304-N / S12-05 | FRONTO-FACIAL MONOBLOC ADVANCEMENT WITH INTERNAL DISTRACTION IN CROUZON SYNDROME: LONG-TERM EFFECTS OF MOLAR DEVELOPMENT AND GROWTH**
L. Sicard, M. Hounkpevi, C. Tomat, S. James, G. Paternoster, R. H. Khonsari, E. Arnaud (France)*
- 13H20 - 13H25 | **19-12-305-N / 19-9-286 | NEURAL CORRELATES OF CHILDHOOD LANGUAGE DISORDER IN CHILDREN WITH CRANIOSYNOSTOSIS: A SYSTEMATIC REVIEW**
S. Kilcoyne, S. Overton, G. Roumeliotis (United Kingdom)*
- 13H25 - 13H30 | **19-12-306-N / 19-9-285 | SQUAMOSAL SUTURE SYNOSTOSIS: ITS ASSOCIATIONS AND CLINICAL SIGNIFICANCE**
J. E. Brooker, W. Chen, X. Zhu, J. H. Pang, J. Y. Lee, J. E. Losee, J. A. Goldstein (United States)*
- 13H30 - 13H35 | **19-12-307-N / S4A-18 | SING AND SAY: AN INTERACTIVE WEB-BASED RESOURCE OF LANGUAGE STIMULATION RESOURCES FOR CHILDREN WITH CRANIOSYNOSTOSIS**
S. Kilcoyne (United Kingdom)*
- 13H35 - 13H40 | **19-12-309 | COMPARISON OF BLACK-BONE MRI AND 3D-CT IN THE PREOPERATIVE EVALUATION OF PATIENTS WITH CRANIOSYNOSTOSIS**
A. Saarikko, L. Kuusela, E. Mellanen, J. Leikola, T. Autti, A. Karppinen, N. Brandstack (Finland)*
- 13H40 - 13H45 | **19-12-311 | IMPROVEMENT OF PERIORBITAL APPEARANCE IN APERT SYNDROME AFTER SUBCRANIAL LE FORT III WITH BIPARTITION AND DISTRACTION**
V. Chetty, S. E. Haber, E. Arnaud (France)*

GENERAL & PRACTICAL INFORMATION



ABOUT ISCFS

The International Society of Craniofacial Surgery (ISCFS) was founded in June 1983 in Montreal. It represents the leading plastic surgeons in the world with an interest in and focus on craniofacial surgery.

The goals of ISCFS are to:

- Furnish leadership and foster advances in craniofacial surgery
- Provide a forum for exchange of knowledge pertaining to the practice
- Stimulate research, investigation, and teaching methods for preventing and correcting congenital and acquired craniofacial deformities
- Enhance the study and practice of craniofacial surgery
- Afford recognition to those who have contributed to craniofacial surgery by extending to them membership in the ISCFS

MORE INFORMATION ON: WWW.ISCFS.ORG

The biennial Congress presents outcomes studies and presentations of new techniques, as well as a focus on molecular biology as it relates to craniofacial growth and development, minimally invasive procedures for treatment of craniofacial anomalies such as distraction osteogenesis, the use of endoscopic procedures, application of advanced imaging techniques, and the continuing assessment of methodology currently in use.

VENUE AND ACCESS

The meeting will take place at the Maison de la Chimie in Paris downtown.



Maison de la Chimie

28 rue Saint-Dominique 75007 Paris

An historical, prestigious place in the heart of the 7th arrondissement, the Maison de la Chimie provides visitors with a modern house and a genuine soul. A unique place with different sides to it, combining the charm of the 18th century with the simplicity of the 1930s, the Maison de la Chimie is definitely an important Congress and conference centre in France.



Airports access:

- Paris-Orly airport, see airport access
- Roissy Charles De Gaulle airport, see airport access

How to reach Maison de la Chimie in Paris:



By Metro

- Lines 8 and 13 - Stop: Invalides
- Line 12 - Stop: Assemblée Nationale



By Bus

- Line 69 - Stop: Esplanade des Invalides
- Line 93 - Stop: Invalides



By Train

- RER C - Stop: Esplanade des Invalides

ACCREDITATION



The **18th meeting of the International Society of Craniofacial Surgery, Paris, France, 16/09/2019-19/09/2019** has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with **32** European CME credits (ECMEC®s). Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.”

“Through an agreement between the Union Européenne des Médecins Spécialistes and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME® credit to AMA credit can be found at www.ama-assn.org/education/earn-credit-participation-international-activities. “Live educational activities, occurring outside of Canada, recognised by the UEMS-EACCME® for ECMEC®s are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.”

OFFICIAL LANGUAGE

Organized by an International Scientific Society, all presentations will be given in English. Simultaneous interpretation will not be provided.

CONGRESS SECRETARIAT

ISCFS 2019 / MCI France

25 rue Anatole France - CS70139 - 92532 Levallois-Perret Cedex, France
Tel: +33 (0)1 53 85 82 56 - Fax: +33 (0)1 53 85 82 83

- **General information:** info@iscfs2019.com
- **Exhibition, sponsorship and advertising sales:** partnership@iscfs2019.com
- **Registration & Accommodation:** registration@iscfs2019.com
- **Abstracts:** scientific@iscfs2019.com

On-site secretariat opening hours:

Sunday, September 15:	16:00-19:00	Wednesday, September 18:	07:30-19:30
Monday, September 16:	07:30-21:00	Thursday, September 19:	07:00-19:30
Tuesday, September 17:	07:30-19:30		

WIFI



A free wifi access is offered to all participants. Please connect to wifi_MC.



Go to www.iscfs2019.com to get the latest information, view the programme, abstracts, floor plan,...

WORKING HOURS

BANKS: approximately 08.30-12.30 / 13.45-17.00
PHARMACIES: approximately 08.00-19.00
SHOPS: approximately 10.00-19.00

SHOPPING MALLS: approximately 8.30-20.00
EMBASSIES: approximately 9.00-17.00

CURRENCY

FRANCE'S CURRENCY: Euro (€). Currencies can be exchanged at the airport and in banks.

ELECTRICITY NETWORK

France has a voltage of 220 V.

USEFUL TELEPHONE NUMBERS

EMERGENCY PHONE NUMBER: 112 (from a cell phone)
PARIS AIRPORTS: +33 1 70 36 39 50
GARE DU NORD TRAIN STATION: 3635 (for French lines only)

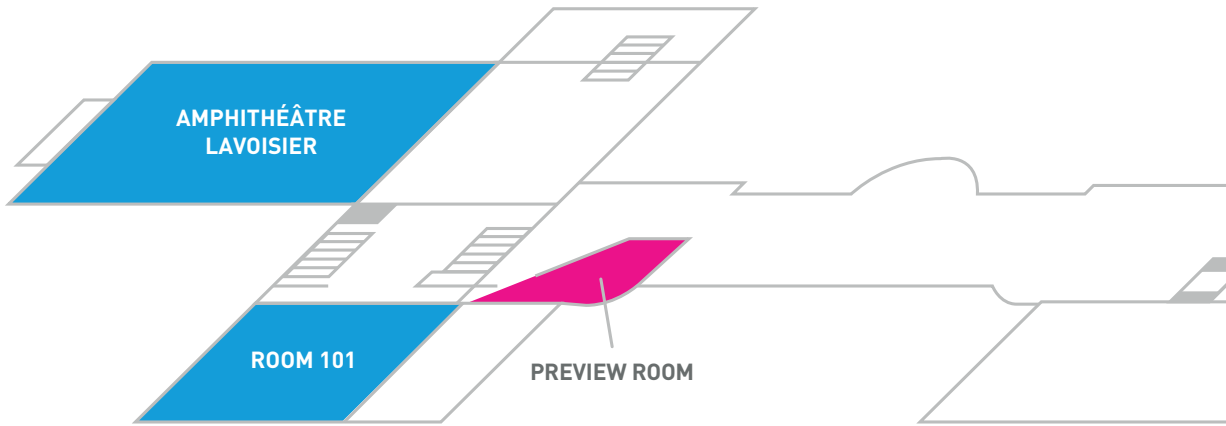
TAXI



TAXI G7: + 33 (0) 1 47 39 47 39
ALPHA TAXIS: +33 (0) 1 45 85 85 85

VENUE FLOORPLAN

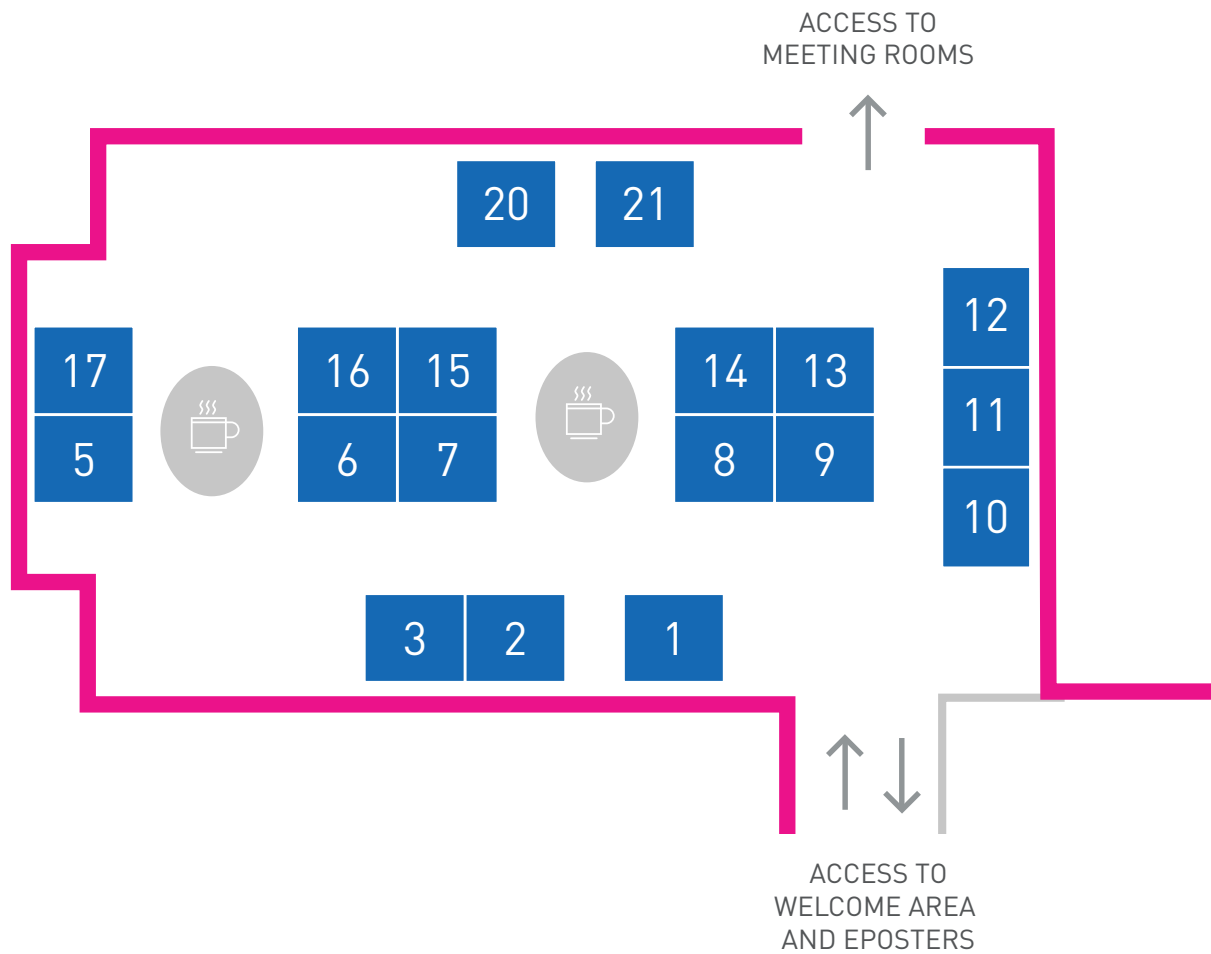
LEVEL 1



LEVEL 0



EXHIBITION FLOOR PLAN & LIST OF EXHIBITORS*



COMPANY	BOOTH N°
CHM SP. Z O.O	7 - 15
DELPHOS IMPLANTS	21
DEPUY SYNTHES	14
INTEGRA/CODMAN	17
KLS MARTIN GROUP	8 - 9
LES P'TITS COURAGEUX	16
MATRIX SURGICAL USA	5
MECTRON SPA	11 -12
MEDARTIS	20
MEDICALSUMI COMPANY, S. L.	13
ORTHO BALTIC	10
OSSDSIGN AB	3
STRYKER	1 -2
UNIVERSITY OF FLORIDA SHANDS HOSPITAL	6

EXHIBITORS PROFILES*

CHM SP. Z O.O

Booth n°: 7 - 15

Contact: Pawel TARASEWICZ - **Email:** export@chm.eu - **Website:** www.chm.eu
Lewickie 3B - 16-061 Juchnowiec Koscielny - Poland
Phone: +48 85 8686 100 - **Fax:** +48 85 8686 101

Established in 1981, ChM sp. z o.o. obtained its development experience in trauma implants. Over 30 years of activity in medical environment resulted in successful launching of new division – craniofacial implants. Bioresorbable and customized 3D implants help us to accomplish our aim – supporting surgeons in managing even most complex cases.

DELPHOS IMPLANTS

Booth n°: 21

Contact: Victor MONSANTO - **Email:** delphos@delphosimplants.com - **Website:** www.delphosimplants.com
Estrada Manuel Correia Lopes – Parque Empresarial Progresso – Armazém 5 - 2785-126 Parede Lisboa - Portugal
Phone: +351 211955986

With more than 15 years of experience in the field of medical implants, both in production and distribution, Delphos Implants guarantees great agility and precision in meeting the expectations of its costumers and distributors through the manufacture of titanium material for orthopedic and maxillofacial surgery.

DEPUY SYNTHES

Booth n°: 14

Contact: Karl ZEDERFELDT - **Email:** kzederfe@its.jnj.com - **Website:** www.depuysynthes.com
325 Paramount Drive – 02767 Raynham, MA - USA
Phone: +41 61 965 65 87

DePuy Synthes Craniomaxillofacial (CMF) systems provide a complete array of implants and instruments for the treatment of facial trauma, tumor resection and reconstruction. Our focus is on supplying a variety of treatment options in the mandibular and maxillofacial skeleton. Products include low-profile systems, intuitive clamps and patient specific implants.

INTEGRA/CODMAN

Booth n°: 17

Email: csemea@integralife.com - **Website:** www.integralife.com
97 Allée Alexandre Borodine, Immeuble Séquoia 2 – Parc technologique de la porte des Alpes
69800 Saint-Priest - France
Phone: +33 4 37 47 59 00 - **Fax:** +33 4 37 47 56 99

Integra is one of the world's largest suppliers of neurosurgical and surgical care products, providing a complete portfolio throughout the continuum of care. Integra's commitment to finding innovative solutions tailored to the needs of neurosurgeons, with the aim of reducing uncertainty in the profession, has enabled it to develop products that have influenced generations of professionals.

KLS MARTIN GROUP

Booth n°: 8 - 9

Contact: Nico STÖBER - **Email:** nico.stoeber@klsmartin.com - **Website:** www.klsmartin.com
KLS Martin Platz 1 - 78532 Tuttlingen - Germany
Phone: +49 (0)151 62516001 - **Fax:** +49 7461 706-193

Surgical Innovation is our Passion. This is a promise we have pursued in surgery since 1923. With this claim in mind, we develop and market medical technology solutions such as implant systems, electrosurgery units, surgical laser systems, sterilization containers, OR lights, surgical instruments as well as individual OR solutions.

LES P'TITS COURAGEUX

Booth n°: 16

Contact: Laetitia DOS REIS GRACA - **Email:** lesptitscourageux@gmail.com - **Website:** www.lesptitscourageux.net
25 rue Kageneck - 67000 Strasbourg - France
Phone number: +33 7 83 84 63 14

Les P'tits Courageux is an association created for/by families and their children with faciocraniostenosis (principally Crouzon, Pfeiffer and Apert's). Our objective is to help families to cope via communication and support via financial aid when needed. We strive to create a positive community for these strong and happy children.

MATRIX SURGICAL USA**Booth n°: 5**

Contact: Jim PEREZ - **Email:** jperez@matrixsurgicalusa.com - **Website:** www.matrixsurgicalusa.com
4025 Welcome All Rd., Suite 120 – 30349 Atlanta, GA - USA
Phone: +1 404 855 4592 - **Fax:** + 1 404-344-0283

Matrix Surgical USA designs, manufactures and distributes OMNIPORE® porous high-density polyethylene implants for craniofacial reconstructive surgery. Manufactured in the USA, OmniPore Surgical Implants meet the highest standards for quality and reliability. OMNIPORE implants have been cleared by the FDA, CE marked in Europe and utilized by surgeons throughout the World.

MECTRON SPA**Booth n°: 11 - 12**

Contact: Renato DI MARTINO - **Email:** piezosurgery@mectron.com - **Website:** www.mectron.com
Via Loreto 15/A - 16042 Carasco (GE) - Italy
Phone: +39 0185 35361 - **Fax:** +39 0185 351374

Mectron has been active and successful in the dental field since 1979, developing and producing top-quality devices. When Mectron introduced PIEZOSURGERY® in 2001, the technology was evolutionary for bone surgery: a device which provided precision, safety, perfect ergonomics and the highest quality to surgeons all around the world. Soon the new technology became the benchmark for bone surgery devices.

MEDARTIS**Booth n°: 20**

Contact: Michel LAMARCHE - **Email:** Michel.lamarche@medartis.com - **Website:** www.medartis.com
Hochbergerstrasse 60E – 4057 Basel - Switzerland
Phone: +41 (0) 61 633 34 34 - **Fax:** +41 (0) 61 633 34 00

As an innovation leader, Medartis promotes technologies and solutions for osteosynthesis in cranio-maxillofacial surgery and upper/lower extremities. In close cooperation with international surgeons and scientists from leading clinics and universities. Developed and produced at the headquarters in Basel/Switzerland. For optimized treatment and an improved quality of life for patients. Worldwide.

MEDICALSUMI COMPANY, S. L.**Booth n°: 13**

Contact: Joan PINYOT GARRÒS - **Email:** medsumi@medicalsumi.com - **Website:** www.plagiocephalie.com
Carrer del Centre n° 31 – 08211 Castellar del Vallès (Barcelona) - Spain
Phone: +34 656314014 - **Fax:** +34 93 747 11 56

Diagnostic and treatment of cranial deformities (plagiocephaly, brachycephaly...) and cranial malformations (craniosynostosis...) with the DOC Band™ (dynamic orthotic cranioplasty) for plagio, brachy... and the DOC Band post-op™ for synostosis. Medical centers in: Barcelona (Spain), info@plagiocephaly.es; Paris (France), craniodocparis@gmail.com ; Porto (Portugal) consultaexterna@ordemsaofrancisco.pt. Distribution of cranial Anthropometric Measuring tools (cranial spreading calipers)

ORTHO BALTIC**Booth n°: 10**

Contact: Vilma BALCIAUSKAITE - **Email:** vilma.balciauskaite@orthobaltic.lt - **Website:** www.balticimplants.eu
Taikos Ave. 131A - LT-51124 Kaunas - Lithuania
Phone: +370 37 473970 - **Fax:** +370 37 473863

Ortho Baltic specializes in design and production of patient-specific medical devices for treatment of complex and rear clinical conditions, as well as in developing Digital Health IT technologies. Ortho Baltic is export-oriented company (99%), the main markets are Benelux, Scandinavia, Germany and Switzerland.

OSSDSIGN AB**Booth n°: 3**

Contact: Felicia FREDRIKSSON - **Email:** fb@ossdsign.com - **Website:** www.ossdsign.com
 Virdings Allé 2 - SE-75450 Uppsala - Sweden
Phone: +46 18 55 39 93

OssDsign is a company dedicated to creating regenerative implants for improved healing of bone defects. We provide surgeons around the world with innovative implant solutions for improved patient outcomes. By combining clinical insight, proprietary material technology and patient-adapted design, OssDsign supplies an expanding range of tailored solutions for cranial repair.

STRYKER**Booth n°: 1 - 2**

Contact: Caitlin CASEY - **Email:** Caitlin.Casey@Stryker.com - **Website:** www.stryker.com
 Herikerbergweg 110 - 1101 CM Amsterdam - Netherlands

Stryker is one of the world's leading medical technology companies and is dedicated to helping healthcare professionals perform their jobs.

UNIVERSITY OF FLORIDA SHANDS HOSPITAL**Booth n°: 6**

Contact: Kelly FLOWERS - **Email:** flowek@shands.ufl.edu
Website: <https://neurosurgery.ufl.edu/patient-care/pediatric-neurosurgery/>
 1329 SW 16th Street, Suite 3120 - 32608 Gainesville - USA
Phone: +1 352 265 8314

At UF Health Shands Children's Hospital, Drs. Lance Governale, Associate Professor of Pediatric Neurosurgery, and Jessica Ching, Assistant Professor, Plastic and Reconstructive Surgery, are the co-directors of the UF Multidisciplinary Craniosynostosis Program. They use advanced technology to conduct minimally invasive procedures for children with Craniosynostosis. For more information visit, www.neurosurgery.ufl.edu.

SPONSORS ACKNOWLEDGEMENTS

PLATINUM SPONSOR



SILVER SPONSOR



BRONZE SPONSORS





ISCFS 2019

16-19 September

Paris, France

www.iscfs2019.com

18th Congress of International Society of **Craniofacial Surgery**

Stay tuned - Feel engaged

www.iscfs2019.com   #ISCFS2019

ISCFS 2019 / MCI France 25 rue Anatole France 92300 Levallois-Perret Cedex
partnership@iscfs2019.com Tel. + 33 (0)1 53 85 82 56