Monday, September 16, 2019
ISCFS PRE-SYMPOSIUM - PROGRAMME

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

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

08H06-08H14 | SYM1.1 - INTRODUCTION TO MULTIDISCIPLINARY PANEL AND BURGEONING FIELD OF NEUROPLASTIC SURGERY
Chad Gordon (United States)

08H14-08H22 | SYM1.2 - PEDIATRIC CRANIOPLASTY AND CONSIDERATIONS FOR TEMPORAL DEFORMITIES
Anand Kumar (United States)

08H23-08H31 | SYM1.3 - ADULT CRANIOPLASTY AND OPTIMIZING OUTCOMES WITH CUSTOMIZED CRANIAL IMPLANTS
Chad Gordon (United States)

08H31-08H39 | SYM1.4 - SINGLE-STAGE CRANIOPLASTY RECONSTRUCTION FOR SKULL/brains TUMORS USING CUSTOMIZED CRANIAL IMPLANTS
Michael Lim (United States)

08H40-08H48 | SYM1.5 - CUSTOMIZED CRANIAL IMPLANTS WITH EMBEDDED NEUROMODULATION DEVICES
Stan Anderson (United States)

08H48-08H56 | SYM1.6 - COMPUTER-ASSISTED/ROBOT-ASSISTED TECHNOLOGIES FOR CRANIAL IMPLANT MODIFICATION AND CRANIOPLASTY
Mehran Armand (United States)

08H57-09H05 | SYM1.7 - NON-SURGICAL SOLUTIONS FOR POST-CRANIOTOMY TEMPORAL DEFORMITIES
Mary Sheu (United States)

09H06-09H24 | DISCUSSION
ORTHOGNATIC/ORTHODONTICS PANEL
09H25-10H30 | 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

SYMPOSIUM LECTURES
11H05-13H02 | 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 | SYM7 - 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

MONOBLOC
14H08-15h59 | Amphi theater 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

MONOBLOC
16H35-19H00 | 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 FACIOCRAINOYSYNOSTOSES (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 FACIOCRAINOYSYNOSTOTIC CHILDREN (6 min lecture + 4 min discussion)
Eric Arnaud (Hop Necker, Paris)

17H56-18H05 | SYM9.9E2 - SECONDARY LE FORT 3 AFTER MONOBLOC (5 min 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 FACIOCRAINOYSYNOSTOSES: 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

LECTURES
08H00-09H20 | 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)

PANEL 1 - NEUROSURGERY
09H20-10H30 | 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 SYRINGOMYEILA: EPIDEMIOLOGY, MANAGEMENT AND SURGICAL ATTITUDE (PART 3) (10 min lecture + 5 min discussion)
Giovanna Paternoster (Hop Necker, Paris)

10H30-11H00 - Coffee break
SESSION 1: NEUROSURGERY

11H02-13H15 | 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

11H06-11H09 | S1-02 - INTRACRANIAL HYPERTENSION AND CORTICAL THICKNESS IN SYNDROMIC CRANIOSYNOSTOSIS

11H10-11H13 | S1-03 - INTRACRANIAL HYPERTENSION AND SLEEP-DISORDERED BREATHING IN CHILDREN WITH CRANIOSYNOSTOSIS

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 DISPROPORTION
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. Boddart (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

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 CRANIOPEGUS 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

SESSION 2: POSTERIOR VAULT DISTRACTION
14H15-15H55 / Amphitheater Lavoisier
Chairs: Irene Mathijssen (Netherlands), Syril James (Hop Necker, Paris)

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

14H39-14H45 | S2-05 - VOLUMETRIC CHANGES OF GREY MATTER, WHITE MATTER AND CEREBROSPINAL FLUID FOLLOWING 87 POSTERIOR VAULT EXPANSION CASES IN PATIENTS WITH CRANIOSYNOSTOSIS

14H46-14H52 | S2-06 - VENTRICULAR SHUNT COMPLICATIONS IN PATIENTS UNDERGOING POSTERIOR VAULT DISTRACTION OSTEOSTENESIS
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 DISTRACTOR-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)

15H28-15H34 | S2-11 - ENDOSCOPIC SPRING-MEDIATED DISTRACTION FOR UNILAMBDOID CRANIOSYNOSTOSIS
P. A. Mittermiller, D. H. Rochlin, C. C. Shechter, 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

15H51-15H55 | DISCUSSION

15H55-16H25 - Coffee break

PANEL 2 - TRANSPLANTATION
16H26-17H30 / 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

SESSION 3: FACIOCRANIOSYNOSTOSIS – PART I

17H30-19H25 / 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?

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

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

19H10-19H13 | S3-18-N / S12-11 - THE EFFECT OF FACIAL BIPARTITION DISTRACTION ON UPPER AIRWAY VOLUME AND OBSTRUCTIVE SLEEP APNEA IN APERT’S PATIENTS

19H13-19H25 | DISCUSSION
INTERNATIONAL COURSE S.O.R.G. ACADEMY: THE CRANIOFACIAL ARENA, PRO AND CONTRA, OPINIONS VS. EVIDENCE
17H30-19H30 | 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
- Eric Arnaud, Paris, France
- John Polley, Chicago, IL, USA

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?
SESSION 4A: GENERALITIES IN CRANIOSYNOSTOSIS — PART I

08H00-10H25 | 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. Alhumsi*, 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

08H20-08H23 | S4A-06 - A PERIOPERATIVE 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 | S4A-10 - EFFECTS OF DIFFERENT DIRECTIONS OF ANTERIOR CRANIAL DISTRACTION OSTEOSTEOSIS ON ANTERIOR CRANIAL VOLUME
S. Lijun*, W. Shen, C. Jianbing, H. Tao, C. Jie (China)

08H50 | 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. Taka (Japan)

08HS4 | 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 | DISCUSSION

09H04 | 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 | 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 | S4A-15 - CRANIOSYNOSTOSIS – A REVERSIBLE PATHOLOGY? NEOSUTURES APPEARING AFTER OSTEOTOMY COMBINED WITH SPRINGS
L. Kölby*, G. Maltese, P. Tarnow, K. Säljö (Sweden)

09H14 | DISCUSSION

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

09H25 | 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 | S4A-19 - THE COGNITIVE PROFILE OF CHILDREN WITH NON-SYNDROMIC CRANIOSYNOSTOSIS
M. Klijajic*, G. Maltese, P. Tarnow, P. Sand, L. Kölby (Sweden)

09H35 | DISCUSSION

09H43 | 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

09H53-10h00 | DISCUSSION

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

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

10H15-10H24 | DISCUSSION

10H25-11H00 - Coffee break

SESSION 5A: GENERALITIES IN CRANIOSYNOSTOSIS – PART II

11H02-11H45 | Amphitheater Lavoisier
Chairs: Jeffrey A. Fearon (United States), Juan Carlos Rodriguez (Argentina)

11H03-11H06 | S5A-01 - EVALUATING STRESS IN CAREGIVERS OF CHILDREN WITH CRANIOSYNOSTOSIS

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 - OPHTALMOLOGICAL FINDINGS IN INFANTS WITH NON-SYNDROMIC CRANIOSYNOSTOSIS
E. Ntoula*, 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

11H37-11H45 | DISCUSSION

SESSION 6A: CORONAL SYNOSTOSIS
11H46-12H55 | 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

12H00-12H07 | DISCUSSION

12H08-12H14 | S6A-05 - IMPROVED OUTCOMES IN STRABISMUS ASSOCIATED WITH UNICORONAL CRANIOSYNOSTOSIS (UCS)
D. Cuzzzone*, 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

12H41- 12H44 | S6A-10-N / 19-2-230 - IN SITU UNILATERAL REMODELING OF SUPRA ORBITAL BAR BY INCOMPLETE OSTEOTOMY IN UNILATERAL CORONAL SYNOSTOSIS
J. Saboye*, S. Boeto (France)

12H45-12H55 | DISCUSSION

12H56-13H56 - Lunch & eposter presentations

SESSION 7A: SAGITTAL SYNOSTOSIS

14H00-16H04 | Amphitheater Lavoisier
Chairs: John Persing (United States), Mark R Proctor (United States)

14H01-14H04 | S7A-01 - PROGRESSION OF SCAPHOCEPHALY IN UNTREATED SAGITTAL SYNOSTOSIS OVER THE FIRST YEAR OF AGE

14H04-14H07 | S7A-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 | S7A-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 | S7A-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 | S7A-05 - IMPACT OF SPRING FORCE, LENGTH, AND QUANTITY IN OUTCOMES OF SPRING-MEDIATED CRANIAL VAULT EXPANSION IN SAGITTAL SYNOSTOSIS

14H27-14H30 | S7A-06 - CEPHALIC MEASUREMENTS ON 3D PHOTOGRAMMETRY IN A COHORT OF SCAPHOCEPHALIC PATIENTS FOLLOWING SPRING ASSISTED CRANIoplasty
M. Tenhagen*, K. A. Mauff, I. M. Mathijsen, M.-L. C. van Veelen (Netherlands)

14H31-14H37 | S7A-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 | S7A-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 | S7A-09 - SHAPE MEMORY ALLOYS IN CRANIOFACIAL SURGERY: DESIGN AND ASSESSMENT OF A NOVEL DISTRACTER 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 | S7A-10 - THE MELBOURNE METHOD OF TOTAL CRANIAL VAULT RECONSTRUCTION FOR SCAPHOCEPHALY—A TWENTY YEAR OVERVIEW
A. Holmes*, A. Wray, J. Burge (Australia)

14H59-15H02 | S7A-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 | S7A-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 | S7A-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 | S7A-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 | S7A-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 | S7A-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 | S7A-17 - THE FIRST MULTI-CENTRE RETROSPECTIVE REVIEW OF OUTCOMES AFTER SURGERY FOR SAGITTAL CRANIOSYNOSTOSIS: A CANADIAN NATIONAL COLLABORATIVE
G. A. Roumeliotis* (Canada)
15H50-15H53 | S7A-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 | S7A-19 - LONG-TERM NEUROCOGNITIVE OUTCOMES IN SAGITTAL SYNOSTOSIS: THE IMPACT OF REOPERATION

15H57-16H04 | DISCUSSION

16H05-16H35 - Coffee break

SESSION 8A: METOPIC SYNOSTOSIS
16H35-18H04 | Amphitheater Lavoisier
Chair: 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

16H42-16H48 | S8A-03 - NEUROPSYCHOLOGICAL, BEHAVIOURAL AND PSYCHOLOGICAL FUNCTIONING OF CHILDREN AND ADULTS WITH UNOPERATED METOPIC SYNOSTOSIS

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-Odendaal, M. Bezuhly* (Canada)

16H58-17H01 | S8A-05 - SCHOOL-AGE AESTHETIC OUTCOMES IN CHILDREN WITH METOPIC CRANIOSYNOSTOSIS. AFTER ENDOSCOPIQ OR OPEN TREATMENT

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. Dithakasem, 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 - 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

SESSION 9A: CRANIOPLASTY

18H05-19H20 | 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

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
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

SESSION 4B: ORTHOGNATHIC / TREACHER-COLLINS
08H00-10H35 | Room 101
Chairs: Fernando Molina (Mexico), 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

08H13-08H19 | DISCUSSION

08H20-08H23 | S4B-04 - QUANTITATIVE AIRWAY ANALYSIS OF C3DO 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

08H36-08H39 | 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. Adolfs, 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)

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

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)

09H59-09H58 | 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 MANDIBULOFAICAL 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

SESSION 5B: TRAUMA FACE
11H06-11H40 | 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. Kachnirar, 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

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

SESSION 6B: HFM ROBIN - PART I
11H42-13H04 | 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 OSTEONEOSIS
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

12H36-12H43 | DISCUSSION

12H44-12H47 | S6B-12 - TREATED PIERRE ROBIN SEQUENCE USING PLACED ALLOGENIC ACCELLULAR 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

12H57-13H04 | DISCUSSION

13H05-14H05 - Lunch & eposter presentations
SESSION 7B: HFM ROBIN - PART II

14H06-15H29 | 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 OSTEONEGENESIS
N. Siegel, A. Shi, J. Lopez*, N. Khavanin, H. Wang, H. Jenny, R. Redett, J. Walsh, J. Steinberg (United States)

14H10-14H16 | S7B-03 - HINDSIGHT IS 20/20: DISTRACTION OSTEONEGENESIS IN HEMIFACIAL MICROsomia IN 2020
J. Polley*, J. Girotto, M. Dietze-Fiedler, M. Fahrenkopf (United States)

14H17-14H20 | S7B-04 - RATE AND RISK FACTORS FOR REPEATED MANDIBULAR DISTRACTION OSTEONEGENESIS IN INFANTS 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 OSTEONEGENESIS: 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 SKELETTALLY 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 OSTEONEGENESIS: A NOVEL APPROACH TO GROWING THE PRUZANSKY 3 MANDIBLE
R. M. Vyas* (United States)

15H02-15H05 | S7B-12 - PEDIATRIC MANDIBULAR DISTRACTION OSTEONEGENESIS 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

SESSION 8B: FACE RESEARCH - PART I
15H30-16H03 | 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
SESSION 9B: FACE RESEARCH - PART II

16H35-17H14 | 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. Wolfsinkel*, A. Fahrdryan, W. Magee III, M. Urata, J. Hammoudeh (United States)

SESSION 10B: FACE RECONSTRUCTION

17H15-18H15 | 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 MICROSNOMIA
C. A. Derderian *, C. Zhou, R. R. Hallac (United States)

17H23-17H29 | DISCUSSION

17H30-17H33 | S10B-04 - USE OF FAT TRANSFER IN 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 ALLOTRANPLANTATION

17H58-18H01 | S10B-10 - OCCLUSAL & DENTAL OUTCOMES FOLLOWING FACIAL ALLOTRANPLANTATION

18H02-18H08 | S10B-11 - MOBILE EYE SOCKET RECONSTRUCTION USING COSTAL CARTILAGES
H. Motomura* (Japan)

18H08-18H15 | DISCUSSION

SESSION 11B: FACE MISCELLANEOUS
18H16-19H10 | Room 101
Chairs: Stephen Beals (United States), David Xiongzheng 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

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)

19H01-19H10 | DISCUSSION
SESSION 12: FACIOCRANIOSYNOSTOSIS – PART II

08H35-10H30 | 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

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

SESSION 13: HYPERTELORISM / CRANIOFACIAL CLEFTS

11H05-12H10 | 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. Duvvuri, 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

LECTURE
12H12-13H00 | Amphitheater Lavoisier

12H15-12H15 | 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

SESSION 14: FACIOCRANIROSYNOSTOSIS – PART III
14H03-15H00 | Amphitheater Lavoisier
Chairs: David Xiongzheng 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

14H15-14H20 | DISCUSSION

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

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

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

SESSION 15: PLANNING/IMAGING - PART I
15H02-15H59 | 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

15H24-15H27 | 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)

15H27-15H30 | S15-05 - INTRAOPERATIVE NAVIGATION IN CRANIOSYNOSTOSIS BASED ON VIRTUAL SURGICAL PLANNING AND AN “IN HOUSE” TECHNIQUE

15H31-15H34 | 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)

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

SESSION 16: PLANNING/IMAGING – PART II
16H33-17H58 | 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 STEREOPHOTOGRAMMETRY
E. J. K. Bijlsma*, G. De Jong, J. Meulstee, M. Wennen, H. Delye (Netherlands)

16H56-16H59 | 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)

17H00-17H03 | 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)

17H03-17H10 | DISCUSSION
17H11-17H14 | 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)

17H14-17H17 | 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)

17H18-17H21 | S16-09 - SEPARATING CRANIOPAGUS TWINS: A 4 STAGE APPROACH USING 3D IMAGING TECHNOLOGY

17H21-17H28 | 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

PANEL 3 - AESTHETIC AND COGNITIVE OUTCOMES: REOPERATIONS IN OPEN VS ENDOSCOPY PROCEDURES
18H00-19H00 | 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 Mathijsen (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