DEBATES

MONDAY, JULY 2ND 2012 – 11.40–12.30

Controversial topic 1
RELEVANCE OF GENETIC STUDIES ON IDIOPATHIC SCOLIOSIS

with participation of:
Alain Moreau (Montreal, Canada) – moderator
Jack Cheng (Hong Kong, China) – how much genetics in IS?
Ryszard Slomski (Poznan, Poland) – how to find the pathology?
Tomasz Kotwicki (Poznan, Poland) – who should be tested?

TUESDAY, JULY 3RD 2012 – 12.00–13.00

Mini-Symposium
LOWER LIMBS – PELVIS – SPINE:
ANATOMICAL ASSEMBLAGE VERSUS EFFICIENT FUNCTIONALITY

with participation of:
Peter Dangerfield (Liverpool, UK) - moderator
Nachiappan Chockalingam (Stoke on Trent, UK) – point by biomechanician
Marek Józwiak (Poznan, Poland) – point by surgeon
Dariusz Czaprowski (Poznan, Poland) – point by physiotherapist

WEDNESDAY, JULY 4TH 2012 – 11.40–12.30

Controversial topic 2
CONSERVATIVE OR SURGICAL MANAGEMENT OF IDIOPATHIC SCOLIOSIS
– FUTURE PERSPECTIVES

with participation of:
Nobumasa Suzuki (Tokyo, Japan) – moderator
Daniel Zarzycki (Zakopane, Poland) – surgeon
Stefano Negrini (Milan, Italy) – physiatrist
Joe O’Brien (Boston, USA) – patient

PROGRAMME

SUNDAY, JULY 1ST 2012

15.00–15.30 Scoliosis Journal Board of Editors Meeting – Mercure Hotel
16.00–17.00 IRSSD Board Meeting – Mercure Hotel
17.00–18.30 Registration – Poznan Opera, Fredry Street 9
18.30–20.30 Welcome Reception – Poznan Opera
(Teatr Wielki, Fredry street 9, www.opera.poznan.pl)

Welcome address (5 min.)
Tomasz Kotwicki, Local Organizer

Opening
Carl-Eric Aubin, President of IRSSD

Memorial address for Dr Moreland (5 min.)
Leszek Romanowski

Invited lecture: One hundred years of orthopaedics in Poznan (10 min.)
Theodoros B Grivas

Invited lecture: Contribution of IRSSD to knowledge on spinal deformities (10 min.)
Carl-Eric Aubin

Presidential address: 3D analysis and modeling of spinal deformities. State of the art (15 min.)
Carl-Eric Aubin

Concert (30 min.)
Cocktail (30 min.)

20.45 IRSSD Board dinner
08.30–09.20 SESSION I – ETIOLOGY

Moderators: J Cheng, J Huber

1 ROLE OF HIGH CENTRAL LEPTIN ACTIVITY IN A SCOLIOSIS MODEL CREATED IN BIPEDAL AMPUTATED MICE
T Wu, X Sun, Z Zhu, X Zheng, B Qian, F Zhu, JCY Cheng, Y Qiu (China)

2 MATERNAL AGE AT BIRTH: DOES IT DICTATE THE EPIGENOTYPIC EXPRESSION OF THE TRUNKAL ASYMMETRY OF A CHILD?
TB Grivas, C Mihas, C Maziotti, N Zisis, S Sakellaropoulou, A Akirotis, RG Burwell (Greece, UK)

3 ABNORMALLY LOWER EXPRESSION OF MELATONIN RECEPTOR IN OSTEOBLASTS OF ADOLESCENT IDIOPATHIC SCOLIOSIS GIRLS
APY Yim, GQ Sun, HY Yeung, KM Lee, KW Ng, TP Lam, Y Qiu, JCY Cheng (China)

4 SECONDARY SCOLIOSIS AFTER THORACOTOMY IN PATIENTS WITH AORTIC COARCTATION AND PATENT DUCTUS ARTERIOSUS
M Roclawski, R Pankowski, A Smoczynski, M Ceynowa, W Kloc, W Wasilewski, P Jende, W Liczbik, P Beldzinski, W Libionka, O Pierzak, S Adamski, M Niedbala (Poland)

5 ETHIOPATHOGENESIS OF THE ADOLESCENT IDIOPATHIC SCOLIOSIS Basing ON NEUROIMAGING AND NEUROPHYSIOLOGICAL EXAMINATIONS WITH THE SPECIAL EMPHASIZING OF MOTOR EVOKED POTENTIALS (MEP)
J Huber, P Rogala (Poland)

09.20–09.35 INVITED LECTURE – Keith Bagnall: My concept on AIS etiology research

09.35–10.25 SESSION II – GENETICS

Moderators: R Castelein, J Żeromski

6 ASSOCIATION STUDY OF IL-17RC, CHL1, DSCAM AND CNTNAP2 GENES POLYMORPHISMS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS SUSCEPTIBILITY IN A CHINESE HAN POPULATION
S Zhou, Z Zhu, X Qiu, W Wu, W Wang, Z Liu, F Lv, Y Qiu (China)

7 ASSOCIATION OF CHD7 POLYMORPHISM WITH SUSCEPTIBILITY TO AND SEVERITY OF IDIOPATHIC SCOLIOSIS IN CENTRAL EUROPEAN POPULATION: PRELIMINARY STUDY
P Janusz, T Kotwicki, M Katwicka, M Andrusiewicz (Poland)

8 MUTATION ANALYSIS OF MESP2, HES7 AND DUSP6 GENE EXONS IN PATIENTS WITH CONGENITAL SCOLIOSIS
X Qiu, S Zhou, H Jiang, M Ji, Q Ding, F Lv, Z Liu, N Tong, JCY Cheng, Y Qiu (China)

10.25–11.00 COFFEE BREAK

11.00–11.40 SESSION III – GENETICS & ETIOLOGY

Moderators: A Moreau, D Bylski-Austrow

11 ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS): METABOLIC FACTORS, BIOMECHANICAL STRESS AND ESTROGEN IMPACT
F Moldovan, I Villemure, K Hendri, G Grimard, C Zaouter, S Parent, A Moreau, H Labelle, SA Patten (Canada)

12 SCOLIOSIS IN THE 22Q11 DELETION SYNDROME
D Cola, C Van Weelden, M Kruyt, R Castelein (The Netherlands)

13 EXOME SEQUENCING IDENTIFIES NOVEL CANDIDATE MUTATIONS IN IDIOPATHIC F Moldovan, SA Patten, K Hendri, S Girard, C Zaouter, P Edery (Canada, France)

14 GENETIC ASSOCIATION STUDIES IN IDIOPATHIC SCOLIOSIS – WHO WAS REALLY TESTED?
P Harasymczuk, P Janusz, T Kotwicki (Poland)

11.40–12.30 CONTROVERSIAL TOPIC 1: RELEVANCE OF GENETIC STUDIES ON IDIOPATHIC SCOLIOSIS

Moderator: Alain Moreau (Montreal, Canada)

HOW MUCH GENETICS IN IS?
Jack Cheng (Hong Kong, China)

HOW TO FIND THE PATHOLOGY?
Ryszard Slomski (Poznan, Poland)

WHO SHOULD BE TESTED?
Tomasz Kotwicki (Poznan, Poland)

Discussion

12.30–13.30 LUNCH
13.30–14.00 POSTER SESSION 1 – GENETICS & ETIOLOGY, IMAGING & MEASUREMENTS

Moderators: W Chu, K Bagnall, M Andrusiewicz

P1-1 A LINE OF ZEBRAFISH WITH INCREASED INCIDENCE OF SPINAL DEFORMITIES
HG Tomasiewicz, XC Liu, C Tassone, P North, J Thometz (USA)

P1-2 ESTROGEN RECEPTOR 2 EXPRESSION IN BACK MUSCLES OF GIRLS WITH IDIOPATHIC SCOLIOSIS – RELATION TO RADIOLOGICAL PARAMETERS
B Rusin, T Kotwicki, A Głędek, M Andrusiewicz, P Urbania, M Kotwicka (Poland)

P1-3 EVER-PRESENT FACTORS IN HEALTHY CHILDREN THAT CAN DEFORM THEIR SPINES. OPPOSITION TO DICKSON'S PARADIGM ON LORDOSIS
PJM van Loon (The Netherlands)

P1-4 A SIMILAR APPROACH IN BRACING OF ADOLESCENT SCOLIOSIS AND KYPHOSIS WITH THE USE OF GROWTH ITSELF IN THORACOLUMBAR LORDOTIC INTERVENTION (TLI)
PJM van Loon, M Roukens, FB Thunnissen, J Munneke (The Netherlands)

P1-5 CORRELATION OF IDIOPATHIC SCOLIOSIS ASSESSMENTS BETWEEN NEWLY DEVELOPED MILWAUKEE TOPOGRAPHIC SCANNER AND QUANTEC
CH Lim, C Tassone, XC Liu, JG Thometz, R Lyon (USA)

P1-6 TRUNK ASYMMETRY IN ONE THOUSAND SCHOOL CHILDREN AGED 7-10 YEARS
L Stolinski, T Kotwicki (Poland)

P1-7 HOW TO MEASURE KYPHOSIS IN EVERYDAY CLINICAL PRACTICE: A RELIABILITY STUDY ON DIFFERENT METHODS
F Zaina, S Donzelli, M Lusini, S Negrini (Italy)

P1-8 WHY X-RAYS ARE NOT RELIABLE TO ASSESS SAGITTAL PROFILE: A CROSS SECTIONAL STUDY
F Zaina, P Pizzetti, S Donzelli, F Negrini, S Negrini (Italy)

P1-9 THE METHOD OF GEOMETRICAL COMPARISON OF 3-DIMENSIONAL OBJECTS CREATED FROM DICOM IMAGES
D Gaweł, K Danielewicz, M Nowak (Poland)

P1-10 ASSESSMENT OF TRUNK ASYMMETRY IN TRANSVERSAL PLANE BY GEOMETRIC OUTLINE OF TRUNK DEFORMATION (GOTD)
IM Kowalski, T Gieżewski, K Zaborowska-Sapeta, H Protasiewicz-Faldowska, P Siwik (Poland)

P1-11 INVESTIGATION OF A LOW COST METHOD TO QUANTIFY COSMETIC DEFECT
T Shannon, N Chockalingam (UK)

P1-12 IS CURVE DIRECTION CORRELATED WITH THE SIDE OF DOMINANT DISPLACEMENT OF CEREBELLAR TONSL AND SYRINX DEVIATION IN THORACIC SCOLIOSIS SECONDARY TO CHIARI MALFORMATION TYPE I AND SYRINGOMYELIA?
T Wu, Z Zhu, X Sun, H Yan, X Zheng, B Qian, F Zhu, W Chu, JCY Cheng, Y Qiu (China)

14.00–15.00 SESSION IV – IMAGING

Moderators: S Negrini, XC Liu

15 NEURONAVIGATION-GUIDED SPINE SURGERY
P Beldziński, W Kloc, O Pierzak, W Libionka, W Lizsbik, B Szopa (Poland)

16 AN IMPROVED KINEMATIC MODEL OF THE SPINE FOR THREE-DIMENSIONAL MOTION ANALYSIS IN THE VICON SYSTEM
MM Długosz, D Panek, P Maciejasz, W Chwała, W Alda (Poland)

17 COMPUTATIONAL MORPHOMETRY OF SEMICIRCULAR CANALS IN ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS) BASED ON HIGH-RESOLUTION MR IMAGES
WCW Chu, L Shi, D Wang, JCY Cheng (China)

18 STATISTICAL DIFFERENCE IN CEREBRAL CORTICAL THICKNESS IN PATIENTS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS AND NORMAL CONTROLS USING COMPUTATIONAL TECHNIQUES – THE UPDATED DATA
WCW Chu, L Shi, D Wang, JCY Cheng (China)

19 SYSTEMATIC ANALYSIS OF THE NEUROCENTRAL JUNCTION (NCJ) IN THE NORMAL INFANTILE, JUVENILE AND ADOLESCENT SPINE
T Schlösser, M Janssen, H Attech, M Viergever, K Vincken, R Costelesin (The Netherlands)

20 ARE BENDING FILMS USEFUL FOR LENKE CLASSIFICATION OF IDIOPATHIC SCOLIOSIS?
M Tyrokowski, T Kotwicki, A Koch, M Drwięga, K Lisiecka, D Ławniczak, S Pietrzak, J Czubak (Poland)

15.00–15.20 INVITED LECTURE – Geoffrey Burwell, Peter Dangerfield: Whither aetiopathogenesis of adolescent idiopathic scoliosis

15.20–16.00 COFFEE BREAK

16.00–17.00 SESSION V – IMAGING

Moderators: W Chu, S Snela

21 DISCORDANCE IN SPINAL AND THORACIC CORRECTION USING POWERFUL FULL SCREW CONSTRUCTS IN IDIOPATHIC SCOLIOTIC
K Soutis, TB Grivas, KA Starantzi, NA Stavropoulos, C Markopoulos, P Papagelopoulos (Greece)
22 THE RIB VERTEBRA ANGLE DIFFERENCE AND ITS MEASUREMENT IN 3D FOR THE EVALUATION OF EARLY ONSET SCOLIOSIS
G Foley, CE Aubin, H Labelle, J Sanders, J D'Astous, C Johnston, S Parent (Canada, US)

23 ANALYSIS OF THE ANTERIOR TRUNK SYMMETRY INDEX (ATSI). PRELIMINARY REPORT
L Stolinski, T Kotwicki, D Czaprowski, J Chowanska, N Suzuki (Poland, Japan)

24 SENSITIVITY-TO-CHANGE OF FULL TORSO SURFACE TOPOGRAPHY MEASUREMENTS IN ADOLESCENTS WITH IDIOPATHIC SCOLIOSIS AND A MAIN THORACIC CURVE
EC Parent, PQ Zhang, D Hill, M Moreau, D Hedden, E Lou (Canada)

25 A NEW 3D TOPOGRAPHIC DEVICE FOR MONITORING SCOLIOSIS PROGRESSION IN CHILDREN
XC Liu, JC Tassone, JG Thometz, RM Lyon, S Tarima, CH Lim, LC Paulsen (USA)

26 GONIOMETER EVALUATION OF THORACIC KYPHOSIS AND LUMBAR LORDOSIS IN SUBJECTS DURING GROWTH AGE: A VALIDITY STUDY
AR Gravina, C Ferraro, A Frizziero, M Ferraro, S Masiero (Italy)

19.00–23.00 SOCIAL EVENT
1. **Finite Element Model of Spinal Hemiepiphysiodesis: Effect of Contact Conditions, Initial Conditions, and Growth**
   - B Kumar, D Bylski-Austrow, Y Liu (USA)

2. **Static and Dynamic Postural Control in Girls with Idiopathic Scoliosis**
   - M Wiernicka, D Łochniński, T Kotwicki, Ł Michałowski, E Kamińska, J Lewandowski, E Hurnik (Poland)

   - A Valassina, AG Aulisa, L Aulisa (Italy)

4. **10.35–11.00 COFFEE BREAK**

5. **11.00–12.00 SESSION VIII – BIOMECHANICS**

6. **The Effect of Leg Length Discrepancy on Pelvis and Spine Kinematics During Gait**
   - R Needham, N Chockalingam, A Healy, EB Ahmed, A Ward (UK)

7. **LBP and Lower Limb Discrepancy: 3D Evaluation of Postural Rebalancing Via Underfoot Wedge Correction**
   - M D’Amico, P Roncoletta, F Di Felice, D Porto, RG Bellomo, R Saggini (Italy)

8. **Lombo-Sacral Joint Efforts During Gait: Comparison Between Healthy and Scoliotic Subjects**
   - M Raison, L Ballaz, C Detrembleur, P Mahaudens, J Lebleu, P Fisette, M Mousny (Canada, Belgium)

9. **The Pelvic Lordosis: An Essential Adaptation in Human Evolution, and a Determinant of SpinoPelvic Alignment**
   - MMA Janssen, T Vrtovec, F Pernus, FC Öner, EE Vereecke, AJ Channon, MA Viergever, KL Vincken, RM Castelein (Slovenia, Belgium, UK, The Netherlands)

10. **Sagittal Spinal Profile and SpinoPelvic Balance in Parents of Scoliotic Children, as Compared to Normal Controls**
    - MMA Janssen, KL Vincken, SM Van Raak, T Vrtovec, B Kemp, MA Viergever, LW Bartels, RM Castelein (The Netherlands, Slovenia)

11. **The Effect of Frontpacks, Shoulder Bags and Handheld Bags on 3D Back Shape and Posture in Young University Students: An ISIS2 Study**
    - J Bettany-Saltikov, L Cole (UK)

12. **12.00–13.00 MINI-SYMPOSIUM. LOWER LIMBS – PELVIS – SPINE: ANATOMICAL ASSEMBLAGE VERSUS EFFICIENT FUNCTIONALITY**
    - **Moderator: Peter Dangerfield (Liverpool, UK)**

    **Point by Biomechanician**
    - Nachiappan Chockalingam (Stoke on Trent, UK)

    **Point by Surgeon**
    - Marek Józwiak (Poznan, Poland)

    **Point by Physiotherapist**
    - Dariusz Czaprowski (Poznan, Poland)

13. **13.00–14.00 LUNCH**

14. **14.00–14.30 POSTER SESSION 2 – BIOMECHANICS & MOVEMENT & POSTURE, GROWTH & METABOLISM**
    - **Moderators: J Raso, PIM van Loon, M Tyrokowski**

    **P2-1**
    - Biomechanical Analysis of Spino-Pelvic Parameters in Adolescent Idiopathic Scoliosis After Spinal Instrumentation and Fusion: A Case Study
    - S Pasha, C-E Aubin, H Labelle, S Parent, J-M Mac-Thiong (Canada)

    **P2-2**
    - Variations in Bioelectric Activity During Symmetric Loading and Asymmetric Stretching of Paraspinal Extensors in Young Adult Women with Mild Single Curve Scoliosis
    - W Chwała, M Plaszewski, P Kowalski (Poland)

    **P2-3**
    - Present Day Explanation of the Clinical Signs in the Biomechanical Aetiology of the So-Called Idiopathic Scoliosis (1995–2011): The Relationship Between the “Model of Hips Movement” and the Character of Scoliosis; Three Groups and Four Types. The Causative Role of “Gait” and “Standing ‘At Ease’ on the Right Leg”
    - T Karski (Poland)

    **P2-4**
    - Typical and Atypical AIS. Pathogenesis
    - M Dudin, D Pinchuk (Russia)

    **P2-5**
    - Leg Length Discrepancy in Scoliotic Patients
    - M D’Amico, P Roncoletta, F Di Felice, D Porto, RG Bellomo, R Saggini (Italy)

    **P2-6**
    - Influence on Mastication of Adolescent Idiopathic Scoliosis: Prevalence of Reverse Chewing Cycles with and Without Brace
    - MG Piancino, T Valletonga, G Frongia, M Brayda, D Braddebin, C Debernardi, P Bracco (Italy)
**P2-7** VALIDATION OF A MULTI-SEGMENT SPINAL MODEL FOR KINEMATIC ANALYSIS AND A COMPARISON OF DIFFERENT DATA PROCESSING TECHNIQUES  
R Needham, N Chockalingam, R Naemi, T Shannon, A Healy (UK)

**P2-8** INTER-EXAMINER, INTRA-SESSION AND INTER-SESSION RELIABILITY OF GAIT MEASUREMENT  
J Leszczewska, D Czaprowski, P Pawłowska, K Bia³obrzewska, A Gębicka, T Kotwicki (Poland)

**P2-9** CLASSIFICATION OF POSTURAL DISORDERS AND SPINAL DEFORMITIES IN THE THREE DIMENSIONS ACCORDING TO COMPUTER OPTICAL TOPOGRAPHY  
VN Sarnadskiy (Russia)

**P2-10** THE EVOLUTION OF STATE OF VERTEBRAL COLUMN IN THREE PLANES  
V Pecherskiy, L Lihacheva, A Chicherin, M Dudin, D Pinchuk (Russia)

**P2-11** ANALYSIS OF CHANGES IN SELECTED BODY CHARACTERISTICS IN MANY YEARS OF OBSERVATION OF CHILDREN AND ADOLESCENTS WITH FAULTY BODY POSTURE  
M Kluszczynski, J Czernicki (Poland)

**P2-12** NEUROHUMORAL REGULATION IN CHILDREN WITH IDIOPATHIC SCOLIOSIS  
T Khaymina, T Avaliani, M Dudin, D Pinchuk (Russia)

**P2-13** PHOTODYNAMIC IMPACT ON THE EPIPHYSEAL PLATES  
S Kurchenko, A Shashko, M Dudin, V Mikhailov, G Netylkota, V Ashmarov (Russia)

**P2-14** LOWER HANDGRIP STRENGTH IN GIRLS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS) – A CASE-CONTROL STUDY  
WS Yu, KY Chan, FWP Yu, HY Yeung, KM Lee, KW Ng, Y Qiu, TP Lam, JCY Cheng (China)

**P2-15** THE IN-VIVO EFFECT OF TORQUE ON GROWTH IN CAUDAL VERTEBRAE  
R Rizza, XC Liu, J Thometz (USA)

**P2-16** NUTRITIONAL STATUS OF CHILDREN AND ADOLESCENTS WITH IDIOPATHIC SCOLIOSIS – PRELIMINARY RESULTS  
E Matusik, J Durmala, P Matusik, E Malecka-Tendera (Poland)

**P2-17** EARLY DEVELOPMENT OF THE COSTOVERTEBRAL JOINTS  
PJ Chen, W Wozniak (Poland)

**P2-18** SEVERE SPINAL DEFORMITY AND MULTIPLE VERTEBRAL COLLAPSES IN JUVENILE CUSHING SYNDROME: A CASE REPORT  
B Rossi, M Mormando, LA Nasto, D Colangelo, L De Marinis, CA Logroscino, E Pola (Italy)

14.30–16.30 SESSION IX – GROWTH AND METABOLISM  
Moderators: TB Grivas, F Moldovan

**P2-19** ASSOCIATION OF VOLUMETRIC BONE MINERAL DENSITY WITH LEPTIN AND SOLUBLE LEPTIN RECEPTOR IN GIRLS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS  
EMS Tam, FWP Yu, Z Liu, TP Lam, BKW Ng, KM Lee, Q Yong, JCY Cheng (China)

**P2-20** BONE QUALITY IN ADOLESCENT IDIOPATHIC SCOLIOSIS GIRLS – A CASE-CONTROL STUDY  
WS Yu, KY Chan, FWP Yu, HY Yeung, KM Lee, KW Ng, Y Qiu, TP Lam, JCY Cheng (China)

**P2-21** ELEVATED SOLUBLE LEPTIN RECEPTOR LEVEL AND ASSOCIATION WITH BODY COMPOSITION IN GIRLS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS  
EMS Tam, HY Yeung, Z Liu, TP Lam, T Ting, JYF Lok, BKW Ng, KM Lee, Q Yong, JCY Cheng (China)

**P2-22** IS AIS UNDER 20-30° A CHAOTIC DYNAMICAL SYSTEM?  
JC de Mauroy, JM Ginoux (France)

**P2-23** CONFERENCE MEETING  
Moderators: TB Grivas, F Moldovan

**P2-24** INFLUENCE OF DYNAMIC LOADING PARAMETERS ON BONE GROWTH MODULATION  
A-L Ménard, B Valteau, I Londono, F Moldovan, G Grimard, I Villemure (Canada)

**P2-25** ABNORMAL SKELETAL GROWTH PATTERNS IN ADOLESCENT IDIOPATHIC SCOLIOSIS – A LONGITUDINAL STUDY TILL SKELETAL MATURITY  
APY Yim, HY Yeung, WJ Wang, VWY Hung, L Qin, KM Lee, TP Lam, Y Qiu, JCY Cheng (China)

**P2-26** UPPER ARM LENGTH MODEL SUGGESTS TRANSIENT BILATERAL ASYMMETRY IS ASSOCIATED WITH RIGHT THORACIC ADOLESCENT IDIOPATHIC SCOLIOSIS (RT-AIS) WITH IMPLICATIONS FOR PATHOGENESIS AND ESTIMATION OF LINEAR SKELETAL OVERGROWTH  
RG Burwell, RK Aujla, MP Grevitt, TL Randell, PH Dangerfield, AA Cole, AS Kirby, FJ Polak, RK Pratt, JK Webb, A Moulton (UK)

**P2-27** ANALYSIS OF BODY GROWTH PARAMETERS IN GIRLS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS: SINGLE THORACIC IDIOPATHIC SCOLIOSIS VERSUS SINGLE LUMBAR IDIOPATHIC SCOLIOSIS  
Z Liu, Z Zhu, J Guo, S Mao, W Wang, B Qian, F Zhu, W Chu, JCY Cheng, Y Qiu (China)

**P2-28** HEIGHT VELOCITY CURVES IN FEMALE PATIENTS WITH IDIOPATHIC SCOLIOSIS  
M Chazono, S Soshi, Y Kida, K Hashimoto, T Inoue, Y Nakamura, A Shinohara, K Marumo, K Kono, N Suzuki (Japan)

**P2-29** THE VALUE OF DIFFERENT RISSER GRADING SYSTEMS IN DETERMINING GROWTH MATURITY OF GIRLS WITH ADOLESCENT IDIOPATHIC SCOLIOSIS  
W Wang, X Zhen, X Sun, Z Zhu, F Zhu, TP Lam, JCY Cheng, Y Qiu (China)

16.30–17.30 IRSSD BUSINESS MEETING

19.30–23.00 GALA DINNER
**WEDNESDAY, JULY 4TH 2012**

Congress Center, Przybyszewskiego Street 37
6-minute presentation followed by 4-minute discussion

**08.30–09.20 SESSION X – TREATMENT**

Moderators: M McMaster, P Rogala

54 BIOMECHANICAL ANALYSIS OF PROXIMAL JUNCTIONAL KYPHOSIS: PRELIMINARY RESULTS
M Cammarata, X Wang, J-M Mac-Thiong, CE Aubin (Canada)

55 BIOMECHANICAL ANALYSIS OF PEDICLE SCREW DENSITY IN SPINAL INSTRUMENTATION FOR SCOLIOSIS TREATMENT: FIRST RESULTS
X Wang, C-E Aubin, AN Larson, H Labelle, S Parent (Canada, USA)

56 BIOMECHANICAL ANALYSIS OF FORCES SUSTAINED BY ILIAC SCREWS IN SPINAL INSTRUMENTATION FOR DEFORMITY TREATMENT: PRELIMINARY RESULTS
FD Perrault, C-E Aubin, X Wang, RM Schwend (Canada, USA)

57 OPERATIVE TREATMENT OF IsthMIC SPONDYLOLISTHESIS WITH POSTERIOR STABILIZATION AND ALIF. CAGES VERSUS AUTOGENOUS BONE GRAFTS
R Pankowski, A Smoczyński, M Rocławski, M Ceynowa, W Kloc, W Wasilewski, P Jende, W Liczbik, P Beldziński, W Libionka, O Pierzak, S Adamski, M Niedbala (Poland)

58 LATE RESULTS OF SURGICAL TREATED SCOLIOSIS WITH THE USE OF SELECTIVE AND SURGICALLY EXTENDED INSTRUMENTATION
S Snela, G Sokół, P Jasinski (Poland)

**09.20–10.10 SESSION XI – TREATMENT**

Moderators: N Suzuki, R Tomaszewski

59 RADIOLOGICAL CORRECTION OF SEVERE THORACIC IDIOPATHIC SCOLIOSIS: COMPARISON OF THREE SURGICAL APPROACHES APPLIED TO SIMILAR CURVES
A Koch, P Janusz, P Harasymczuk, D Ławniczak, T Kotwicki (Poland)

60 SURGICAL TREATMENT OF NEUROMUSCULAR SCOLIOSIS: CURRENT TECHNIQUES
T Greggi, F Lollì, M Di Silvestre, K Martikos, F Vommaro, E Maredì, S Giacomini, A Baioni, A Cioni (Italy)

61 THE INFLUENCE OF THE DEVELOPMENT OF SCOLIOSIS POSTERIOR SURGERY ON 3-PLANAR DEFORMITY CORRECTION
R Pankowski, M Rocławski, A Smoczyński, M Ceynowa, W Kloc, W Wasilewski, P Jende, W Liczbik, P Beldziński, W Libionka, O Pierzak, S Adamski, M Niedbala (Poland)

62 IS THE SRS-22 ABLE TO DETECT QUALITY OF LIFE (QOL) CHANGES DURING CONSERVATIVE TREATMENT?
S Negrini, S Donzelli, M Dullio, F Zaina (Italy)

**10.10–10.40 COFFEE BREAK**

**10.40–11.40 SESSION XII – TREATMENT**

Moderators: Y Nohara, W Kloc

64 A SURVEY DATA BASE USE BY SRS MEMBERS
VJ Raso, J Sanders, D Kumar, R Knight, D Burton, R Bowen, K Spratt (Canada)

65 INTRAOPERATIVE NEUROPHYSIOLOGIC MONITORING (INM) IN SCOLIOSIS SURGERY
R Pankowski, K Dziegieł, M Rocławski, A Smoczyński, M Ceynowa, W Kloc, W Wasilewski, P Jende, W Liczbik, P Beldziński, W Libionka, O Pierzak, S Adamski, M Niedbala (Poland)

66 TOWARD THE NEXT GENERATION OF SIMULATOR FOR INTRAOPERATIVE NAVIGATION OF SCOLIOITIC SPINE SURGERIES
O Cartiaux, C-E Aubin, H Labelle, F Cheriet (Canada)

67 SURGICAL TREATMENT FOR SCOLIOSIS ASSOCIATED WITH RARE DISEASE
T Greggi, F Lollì, E Maredì, M Di Silvestre, K Martikos, F Vommaro, S Giacomini, A Baioni, A Cioni (Italy)

68 SURGICAL TREATMENT OF EARLY ONSET SCOLIOSIS IN NEUROFIBROMATOSIS
T Greggi, K Martikos (Italy)

69 COMPLICATIONS INCIDENCE IN THE TREATMENT OF EARLY ONSET SCOLIOSIS WITH GROWING SPINAL IMPLANTS
T Greggi, F Lollì, M Di Silvestre, K Martikos, F Vommaro, E Maredì, S Giacomini, A Baioni, A Cioni (Italy)

**11.40–12.30 CONTROVERSIAL TOPIC 2: CONSERVATIVE OR SURGICAL MANAGEMENT OF IDIOPATHIC SCOLIOSIS – FUTURE PERSPECTIVES**

Moderator: Nobumasa Suzuki (Tokyo, Japan)

POINT BY SURGEON
Daniel Zarzycki (Zakopane, Poland)

POINT BY PHYSIATRIST
Stefano Negrini (Milan, Italy)

POINT BY PATIENT
Joe O’Brien (Boston, USA)

Discussion
12.30–13.30  LUNCH

13.30–14.00  POSTER SESSION 3 – TREATMENT, QUALITY OF LIFE

Moderators: HR Weiss, R Pankowski, E Kinel

P3-1  CONGENITAL SCOLIOSIS, RIYADH EXPERIENCE
M Aljawarah, W Attia, K Almusreia, M Halwani (Saudi Arabia)

P3-2  SPINECOR, EXERCISE AND SPORT RIGID BRACE: WHAT IS THE BEST FOR ADOLESCENT IDIOPATHIC SCOLIOSIS? SHORT TERM RESULTS FROM 2 RETROSPECTIVE STUDIES
F Zaina, S Donzelli, A Negrini, M Romano, S Negrini (Italy)

P3-3  CORRECTIVE EXERCISES IN MULTIMODALITY THERAPY OF IDIOPATHIC SCOLIOSIS IN CHILDREN – ANALYSIS OF SIX WEEKS EFFICIENCY – PILOT STUDY
N Pugacheva (Russia)

P3-4  THE EFFECTIVENESS OF PERCUTANEOUS VERTEBROPLASTY IN THE TREATMENT OF DIFFERENT AETIOLOGY VERTEBRAL BODY FRACTURES
W Kloc, W Libionka, O Pierzak, W Libionka, B Szopa, M Roclawski, R Pankowski, A Smoczynski, M Ceynowa (Poland)

P3-5  THE EFFECT OF PRESSURE PAD LOCATION OF SPINAL ORTHOSIS ON THE TREATMENT OF ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS)
M Wong, M Li, B Ng, TP Lam, M Ying, A Wong, J Cheng (China)

P3-6  OSTEOPATHIC METHOD FOR TREATMENT OF DISCAL HERNIAS
O Kalinovskaya (Russia)

P3-7  RESULTS OF SPINECOR DYNAMIC BRACING FOR IDIOPATHIC SCOLIOSIS
A Szwed, M Kolban (Poland)

P3-8  BRACE TREATMENT IN INFANTILE/JUVENILE PATIENTS WITH PROGRESSIVE SCOLIOSIS IS WORTHWHILE
HR Weiss (Germany)

P3-9  SHORT-TERM EFFECT (ATR, KASPERCZYK’S SCALE, CHEST’S MOBILITY) OF USING PHYSIOTHERAPY METHOD IN THE TREATMENT OF AIS - PILOT STUDY
I Blicharska, A Brzek, J Durmala (Poland)

P3-10  BRACING CAN REDUCE HIGH DEGREE CURVES AND IMPROVE AESTHETICS IMMEDIATELY AFTER THE END OF GROWTH. FINAL RESULTS OF A RETROSPECTIVE CASE SERIES
S Negrini, S Donzelli, M Lusini, F Zaina (Italy)

P3-11  IDIOPATHIC SCOLIOSIS, GROWTH ZONES, MAGNETIC THERAPY
A Arsenev, M Dudin, V Lednev, N Belova, V Mikhailov, G Sokolov (Russia)

P3-12  TREATMENT’S RESULTS OF THE IDIOPATHIC SCOLIOSIS, DEPENDING ON THE USED INSTRUMENTATION
S Snela, P Jasiński, G Sokól (Poland)

14.00–15.10  SESSION XIII – CONSERVATIVE TREATMENT

Moderators: R Nowak, M Kolban

70  CHARACTERISTICS OF PATIENTS WITH MORE THAN 20° OF IMPROVEMENT OR WORSENING DURING CONSERVATIVE TREATMENT OF ADOLESCENT IDIOPATHIC SCOLIOSIS
S Negrini, S Donzelli, M Lusini, F Zaina (Italy)

71  CORRELATION BETWEEN IN-BRACE RADIOGRAPHIC CORRECTION AND SHORT TIME BRACE RESULTS
F Zaina, S Donzelli, M Lusini, S Negrini (Italy)

72  INCLUSION CRITERIA FOR PHYSICAL THERAPY INTERVENTION STUDIES ON SCOLIOSIS – A REVIEW OF THE LITERATURE
HR Weiss (Germany)

73  SMART BRACE VERSUS STANDARD RIGID BRACE FOR THE TREATMENT OF ADOLESCENT SCOLIOSIS: A PILOT STUDY
E Lou, D Hill, J Raso, A Donauer, M Moreau, J Mahood, D Hedden (Canada)