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6th Major Multi-Disciplinary Conference

Porto May 31st - June 3rd

CONFERENCE PROGRAMME

DAY 1
TUESDAY MAY 31st

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Topic: Keynotes Tuesday / Chair: Bronek Boszczyk (Germany)		
8:00	Nemours - optimising paediatric spine care	**Suken Shah (USA)**
8:20	Lessons of life as a spine surgeon	**Max Aebi (Switzerland)**
8:40	High performance teams - if the operating team were a band	**Dan Resnick (USA)**
	9:00-9:30 Break	



Topic: Acute Spine Trauma / Chair: Ian Vlok (South Africa)		
9:30	Assessing the polytrauma patient with spine injury and surgical timing	**Ricardo Rodrigues-Pinto (Portugal)**
9:45	Ganga spine trauma imaging protocol - how CT radiation can be minimized or avoided	**BT Pushpa (India)**
10:00	Considerations in high velocity /energy injury mechanisms	**Alex van der Horst (South Africa)**
10:15	Evaluation & considerations in traumatic spine injury of the elderly	**Max Aebi (Switzerland)**
10:30	Update on screening criteria in cervical spine injury	**Schalk Burger (South Africa)**
10:45	Cervical spine immobilization (Halo, Philly vs Miami J, Traction)	**Ian Zondagh (South Africa)**
11:00	T-L fracture classification systems - application today	**Ian Vlok (South Africa)**
11:15	Understanding the mechanics and patterns of TL fractures	**Max Aebi (Switzerland)**
11:30	Discussion	
	12:00-13:30 Break	



Lunch Workshop Topic: Delegate Case Forum: Trauma Panel / Chair: Ricardo Rodrigues-Pinto (Portugal)		
12:20 lunch workshop	Delegate case TBD	**Ricardo Rodrigues-Pinto (Portugal)**
12:40 lunch workshop	Delegate case TBD	**Max Aebi (Switzerland)**
13:00 lunch workshop	Delegate case TBD	**Alex van der Horst (South Africa)**
	12:00-13:30 Break	



Topic: Cervical Trauma 1 / Chair: Max Aebi (Switzerland)		
13:30	Diagnosing and managing vertebral artery dissection in cervical spine trauma	**Schalk Burger (South Africa)**
13:45	Spinal injuries in professional sports – management and return to play	**Johan Davis (South Africa)**
14:00	Cervical reduction - tips and tricks	**Nick Kruger (South Africa)**
14:15	Cervical traction table – perfecting closed cervical reduction	**Sanesh Miseer (South Africa)**
14:30	The use of anterior only surgery in bifacet- and unifacet dislocation	**Nick Kruger (South Africa)**
14:45	Practicality of skeletal traction in low income countries	**Sanesh Miseer (South Africa)**
15:00	Neglected cervical fractures and dislocations	**Johan Davis (South Africa)**
15:15	Complex subaxial fractures	**David Welsh (South Africa)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Trauma Case Discussion Forum: Paediatric cervical trauma - decision making challenges in extreme cases / Chair: Alex van der Horst (South Africa)		
16:30	Case discussion - Neurologically intact dens dislocation.	**Ian Vlok (South Africa)**
16:45	Case discussion - Gunshot neck in child - time sensitive surgery and intervention	**Sanesh Miseer (South Africa)**
17:00	Case discussion - Cervical instability after dogbite	**Ian Vlok (South Africa)**
17:15	Case discussion - C2 Physeal injury in a 4 year old	**Sanesh Miseer (South Africa)**
17:30	Case discussion - C2 fracture after helicopter accident - conservative or active intervention	**Alex van der Horst (South Africa)**
17:45	Case discussion - Fall from a tree - Ociipito-cervical dislocation	**Ian Vlok (South Africa)**
	18:00 Close	

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Topic: Early Onset Scoliosis 1 / Chair: Laurel Blakemore (USA)		
9:30	Classification of EOS and Growth Friendly Strategies	**Laurel Blakemore (USA)**
9:45	Assessment of maturation in the management of EOS and AIS	**Kenneth Cheung (Hong Kong)**
10:00	Casting - how I do it and when	**Ralf Stücker (Germany)**
10:15	Bracing vs casting vs growth modulation surgery - my experience	**Peter Newton (USA)**
10:30	Use of VEPTR in the very young child	**Ralf Stücker (Germany)**
10:45	Active surgical growth modulation technique in my practice	**René Castelein (Netherlands)**
11:00	My long-term experience with MCGR	**Kenneth Cheung (Hong Kong)**
11:15	My long-term experience with MCGR	**Ralf Stücker (Germany)**
11:30	Discussion	
	12:00-13:30 Break	



Lunch Workshop Topic: NSpine Lunch Symposium: AIS decision making and emerging technology Chair: Nuno Alegrete (Portugal)		
12:20 lunch workshop	Selecting between bracing and Apifix	**Nuno Alegrete (Portugal)**
12:40 lunch workshop	Apifix - evidence, technique and my experience	**Biren Desai (Germany)**
13:00 lunch workshop	VBT - Apifix - Fusion / combinations and decision making	**Baron Lonner (USA)**
	12:00-13:30 Break	



Topic: Early Onset Scoliosis 2 / Chair: Peter Newton (USA)		
13:30	The role and technique of Halo traction in my practice	**Ralf Stücker (Germany)**
13:45	Passive surgical growth modulation techniques in my practice	**Peter Newton (USA)**
14:00	Challenges in instrumenting the young child	**Jwalant Mehta (UK)**
14:15	Revisions in growth modulation surgery	**Laurel Blakemore (USA)**
14:30	Muscle splitting techniques in syndromic EOS deformity correction of young children	**Areena D'Souza (Germany)**
14:45	VBT - decision making in young children	**Stefan Parent (Canada)**
15:00	Is there a role for converting growth modulation to VBT	**Laurel Blakemore (USA)**
15:15	The role of early definitive fusion without growth modulation	**Firoz Miyanji (Canada)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Adolescent Idiopathic Scoliosis 1 / Chair: Per Trobisch (Germany)		
16:30	Natural history of AIS - when is "no treatment" an option / what curve can be accepted	**René Castelein (Netherlands)**
16:45	Traction radiograph in assessing flexibility in AIS	**Keyur Akbari (India)**
17:00	Shoulder balance and structural proximal curves - considerations for surgical strategy	**Laurel Blakemore (USA)**
17:15	Selective thoracic fusion for AIS - when it works	**Michael Ruf (Germany)**
17:30	Selective lumbar fusion for AIS - when it works	**René Castelein (Netherlands)**
17:45	Discussion	
	18:00 Close	

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Topic: Paediatric Cervical Deformity / Chair: Firoz Miyanji (Canada)		
9:30	Understanding early development of the craniocervical spine as basis for congenital deformity	**G Balamurali (India)**
9:45	Surgical strategies for complex craniocervical malformations	**Suken Shah (USA)**
10:00	Surgical considerations in complex subaxial congenital malformations	**Michael Ruf (Germany)**
10:15	Challenges in paediatric post-radiation / intraspinal surgery kyphosis	**Suken Shah (USA)**
10:30	Challenges in congenital cervico-thoracic deformity	**Firoz Miyanji (Canada)**
10:45	Managing paediatric cervical deformity in spinal infections	**Rob Dunn (South Africa)**
11:00	Technical pearls in anterior paediatric cervical spine surgery	**Michael Ruf (Germany)**
11:15	Technical pearls in posterior paediatric cervical spine surgery	**Firoz Miyanji (Canada)**
11:30	Discussion	
	12:00-13:30 Break	



Topic: Spondylolysis and Olisthesis / Chair: Dietrich Schlenzka (Finland)		
13:30	Pathophysiology of spondylolysis and olisthesis revisited	**Dietrich Schlenzka (Finland)**
13:45	Minimally Invasive Pars Repair Options	**Matteo Pejrona (Italy)**
14:00	Spondylolysis in Elite Athletes	**Robert Dunn (South Africa)**
14:15	Outcomes of Non-Surgical Treatment of Pars Fractures in Adolescents	**Dietrich Schlenzka (Finland)**
14:30	Evolving concepts in the management of spondylolisthesis	**Dan Resnick (USA)**
14:45	Mid-grade spondylolisthesis in the child - treatment options	**Robert Dunn (South Africa)**
15:00	High grade spondylolisthesis strategies	**Suken Shah (USA)**
15:15	X-ALIF in lateral spondylolisthesis surgery	**Gergely Bodon (Germany)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Dysraphic / Congenital / Syndromic Paediatric Deformity 1 / Chair: Suken Shah (USA)		
16:30	Anatomical changes in vertebra in dystrophic scoliosis due to neurofibromatosis and its implications on surgical safety	**BT Pushpa (India)**
16:45	Thoracic meningocele in patients with NF 1	**Ashraf Elsayed (UK) tbc**
17:00	Neurofibromatosis and spinal deformity - surgical strategies	**Suken Shah (USA)**
17:15	Scoliosis correction in myelomeningocele children	**Areena D'Souza (Germany)**
17:30	Update on cause and treatment of Chiari Malformations	**Paulo Pereira (Portugal)**
17:45	Discussion	
	18:00 Close	

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Topic: Adult Deformity 1 / Chair: Michael Selby (Australia)		
9:30	Evaluating adult deformity patients for surgical correction	**Michael Selby (Australia)**
9:45	Corrective posterior lumbar osteotomy techniques in degenerative adult deformity	**Matteo Pejrona (Italy)**
10:00	Optimising lordosis through L5/S1 anterior reconstruction - technical aspects	**Daniel Chan (Singapore)**
10:15	Advanced lateral access deformity correction	**Michael Selby (Australia)**
10:30	Open anterior thoracolumbar reconstruction in complex adult deformity	**Daniel Chan (Singapore)**
10:45	Vertebral body tethering in adult degenerative scoliosis	**Baron Lonner (USA)**
11:00	Predicitive parameters and outcome in adult deformity surgery	**Matteo Pejrona (Italy)**
11:15	Single position surgery in adult deformity	**Gergely Bodon (Germany)**
11:30	Discussion	
	12:00-13:30 Break	



Lunch Workshop Topic: NSpine Lunch Symposium: TB related Deformity Chair: Daniel Chan (Singapore)		
12:20 lunch workshop	Challenging TB deformity cases from my practice	**Kenneth Cheung (Hong Kong)**
12:40 lunch workshop	Challenging TB deformity cases from my practice	**Rob Dunn (South Africa)**
13:00 lunch workshop	Challenging TB deformity cases from my practice	**G Balamurali (India)**
	12:00-13:30 Break	



Topic: Adult Deformity 2 / Chair: Michael Selby (Australia)		
13:30	Anaesthetic aspects in preparing for adult deformity surgery	**Robert Nowicki (UK)**
13:45	Surgical strategies in correcting thoracic kyphosis	**Michael Selby (Australia)**
14:00	Correction strategies in ankylosing spondylitis	**Michael Ruf (Germany)**
14:15	Challenging deformity case from my practice	**René Castelein (Netherlands)**
14:30	Subaxial osteotomy in severe cervical kyphosis	**Abolfazl Rahimizade (TBC)**
14:45	Combined anterior-posterior correction of cervical and cervicothoracic deformity	**Michael Ruf (Germany)**
15:00	Pelvic instrumentation and "bedrock" sacroliliac fusion in adult deformity	**Michael Selby (Australia)**
15:15	Managing the new generation of blood thinners in spine surgery	**Robert Nowicki (UK)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Adult Deformity 3 / Chair: Matteo Pejrona (Italy)		
16:30	TLIF and PLIF options in adult degenerative deformity correction	**Nuno Neves (Portugal)**
16:45	All posterior vertebrectomy in adult deformity correction	**Robert Dunn (South Africa)**
17:00	Optimising rod patterns to avoid failure in adult deformity	**Matteo Pejrona (Italy)**
17:15	Salvage strategies in proximal junctional failure	**Michael Selby (Australia)**
17:30	Complications in adult deformity surgery	**Matteo Pejrona (Italy)**
17:45	Discussion	
	18:00 Close	

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Topic: Cervical Degeneration and Arthroplasty / Chair: Paul Thorpe (UK)

9:30	Overview of biomechanical concepts in disc arthroplasty and emerging technology	**Paul Thorpe (UK)**
9:45	Surgical pearls in cervical disc arthroplasty	**Dan Resnick (USA)**
10:00	Review of evidence and personal experience for multi-level disc arthroplasty	**Nuno Neves (Portugal)**
10:15	Cervical arthroplasty in athletes	**Paul Thorpe (UK)**
10:30	Decision making between cervical arthroplasty and fusion	**Dan Resnick (USA)**
10:45	The case for ACDF over TDR	**Ciaran Bolger (Ireland)**
11:00	Posterior cervical techniques in radiculopathy	**Jake Timothy (UK)**
11:15	Revision surgery in cervical arthroplasty	**Paul Thorpe (UK)**
11:30	Discussion	
	12:00-13:30 Break	



Topic: Thoracic Surgical Techniques / Chair: Ciaran Bolger (Ireland)

13:30	Retropleural thoracic disc surgery	**Ciaran Bolger (Ireland)**
13:45	Mini-open thoracic spine procedures	**Jake Timothy (UK)**
14:00	Techniques of crossing and splitting the diaphragm in reconstructive spine surgery	**Daniel Chan (Singapore)**
14:15	Anterior access to the cervicothoracic junction	**Jake Timothy (UK)**
14:30	Managing OPLL and related ossification condition in the thoracic spine	**G Balamurali (India)**
14:45	Posterior costotransversectomy techniques	**Paulo Pereira (Portugal)**
15:00	Spinal epidural abscess management	**G Balamurali (India)**
15:15	Spinal epi / subdural haematoma management	**Ciaran Bolger (Ireland)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Cervical Myelopathy / Chair: Dan Resnick (USA)

16:30	Anterior approaches to the cervical spine – from C1 to T1	**Kenneth Cheung (Hong Kong)**
16:45	Anterior surgical strategies in cervical myelopathy	**Dan Resnick (USA)**
17:00	Posterior surgical strategies in cervical myelopathy	**Kenneth Cheung (Hong Kong)**
17:15	Processus spinous splitting limited width laminectomy	**Gergely Bodon (Germany)**
17:30	Treatment options in basilar invagination	**G Balamurali (India)**
17:45	Discussion	
	18:00 Close	

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Topic: Keynotes Wednesday / Chair: Laurel Blakemore (USA)		
8:00	My life in spinal cord injuries - where we came from and what is on the horizon	**Harvinder Chhabra (India)**
8:20	Lessons of life as a spine surgeon	**Réne Castelein (Netherlands)**
8:40	Lessons of life as a spine surgeon	**Kenneth Cheung (Hong Kong)**
	9:00-9:30 Break	



Topic: Cervical Trauma 2 / Chair: Johan Davis (South Africa)		
9:30	Practicalities of managing combined head and spine trauma	**Dan Resnick (USA)**
9:45	Atlas fractures - surgical strategies, with or without C2	**Johan Davis (South Africa)**
10:00	Odontoid fractures - decision making and surgical techniques	**Sanesh Miseer (South Africa)**
10:15	Odontoid fractures in the elderly	**Johan Davis (South Africa)**
10:30	Neglected hangman fractures	**Abolfazl Rahimizade (Iran)**
10:45	Flouroscopically assisted percutaneous C1-C2 transarticular fixation in odontoid fractures	**Diogo Catelas (Portugal)**
11:00	Condylar fractures	**Schalk Burger (South Africa)**
11:15	Cervicothoracic traumatic injuries – surgical tips and tricks	**Alex van der Horst (South Africa)**
11:30	Discussion	
	12:00-13:30 Break	



Lunch Workshop Topic: Delegate Case Forum: Deformity Panel / Chair: Michael Selby (Australia)		
12:20 lunch workshop	Delegate case TBD	**Nuno Alegrete (Portugal)**
12:40 lunch workshop	Delegate case TBD	**Masood Shafafy (UK)**
13:00 lunch workshop	Delegate case TBD	**Michael Selby (Australia)**
	12:00-13:30 Break	



Topic: Paediatric Spine Trauma / Chair: Laurel Blakemore (USA)		
13:30	Cervical spine clearance in paediatric trauma patients	**Alex Disch (Germany)**
13:45	When (and how) to immobilise or apply traction in paediatric cervical spine trauma patients	**Laurel Blakemore (USA)**
14:00	Epidemiology of paediatric cervical spine injuries	**Nuno Neves (Portugal)**
14:15	My experience and strategies in managing spinal cord injury in the child	**Rob Dunn (South Africa)**
14:30	My experience and strategies in managing spinal cord injury in the child	**Randal Betz (USA)**
14:45	C2 synchondrosis injury in preschool children	**Abolfazl Rahimizade (Iran)**
15:00	Surgical strategies in paediatric cervical spine injuries	**Johan Davis (South Africa)**
15:15	Paediatric thoracolumbar trauma - diagnosis, injury patterns and treatment options	**Sanesh Miseer (South Africa)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Trauma Case Discussion Forum: Lumbar fractures / Chair: Ian Zondagh (South Africa)		
16:30	Case discussion - challenging case from my practice	**Nuno Neves (Portugal)**
16:45	Case discussion - challenging case from my practice	**Philip Horsting (Netherlands)**
17:00	Case discussion - L5S1 gunshot	**Ian Zondagh (South Africa)**
17:15	Case discussion - challenging case from my practice	**Alex Disch (Germany)**
17:30	Case discussion - Lumbar intracanal bullet	**David Welsh (South Africa)**
17:45	Case discussion - thoracolumbar spondyloptosis	**Sanesh Miseer (South Africa)**
	18:00 Close	

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Topic: Adolescent Idiopathic Scoliosis 2 / Chair: Suken Shah (USA)		
9:30	Fine-tuning end-vertebra balance and sagittal profile in AIS - surgical pearls	**Suken Shah (USA)**
9:45	Selective anterior fusion in AIS	**Philip Horsting (Netherlands)**
10:00	Vertebral Body Tethering in Adolescent Idiopathic scoliosis with more than 2 year follow-up - systematic review and meta-analysis	**Aurélien Courvoisier (France)**
10:15	VBT - decision making in teenagers	**Baron Lonner (USA)**
10:30	Borderline indications for VBT	**Aurélien Courvoisier (France)**
10:45	Alternative indications for anterior non-fusion procedures	**Randal Betz (USA)**
11:00	Reasons for VBT failure	**Per Trobisch (Germany)**
11:15	Revision strategies in construct failures and overcorrection after VBT	**Peter Newton (USA)**
11:30	Discussion	
	12:00-13:30 Break	



Lunch Workshop Topic: NSpine Lunch Symposium: VBT / Chair: Aurélien Courvoisier (France)		
12:20 lunch workshop	Outlook on motion preserving scoliosis surgery - where will we be in the next decade	**Per Trobisch (Germany)**
12:40 lunch workshop	Requirements for the ideal motion preserving scoliosis implant	**Stefan Parent (Canada)**
13:00 lunch workshop	Challenges in implementing novel scoliosis implants	**René Castelein (Netherlands)**
	12:00-13:30 Break	



Topic: Adolescent Idiopathic Scoliosis 3 / Chair: Stefan Parent (Canada)		
13:30	Technical steps in mini-open thoracic and lumbar VBT	**Michael Selby (Australia)**
13:45	Thoracoscopic technique and limits for VBT	**Firoz Miyanji (Canada)**
14:00	Effect of non-fusion anterior scoliosis correction on thoracic and lumbar sagittal parameters in AIS - is it detrimental ?	**Keyur Akbari (India)**
14:15	Hybrid VBT-fusion constructs	**Baron Lonner (USA)**
14:30	Retrospective matched cohort study in non-fusion anterior scoliosis correction	**Keyur Akbari (India)**
14:45	Incidental spine and extraspinal anomalies in routine MRI spine of patients with AIS	**BT Pushpa (India)**
15:00	Is there a longterm spinal cord perfusion concern in multilevel segmental ligation	**Firoz Miyanji (Canada)**
15:15	Thromboprophylaxis in paediatric deformity surgery - evidence, risks, benefits	**Jwalant Mehta (UK)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Adolescent Idiopathic Scoliosis 4 / Chair: Per Trobisch (Germany)		
16:30	Novel semi-rigid posterior AIS correction with composite implants	**Areena D'Souza (Germany)**
16:45	Reduction techniques in stiff AIS curves	**Baron Lonner (USA)**
17:00	Vertebral column resection in kyphoscoliosis correction - how I do it	**Jwalant Mehta (UK)**
17:15	Screw / hook placement and rod rotation / translation in deformity correction - how I do it / technique and patterns	**Aurélien Courvoisier (France)**
17:30	Technical steps in reconstructive posterior concave costoplasty	**Areena D'Souza (Germany)**
17:45	Discussion	
	18:00 Close	

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Topic: Dysraphic / Congenital / Syndromic Paediatric Deformity 2 / Chair: Ralf Stücker (Germany)		
9:30	Chest and spine growth and consequences of early fusion	**Laurel Blakemore (USA)**
9:45	Sacral agenesis - treatment strategies	**Jwalant Mehta (UK)**
10:00	Managing congenital lumbar kyphosis in young children	**Ralf Stücker (Germany)**
10:15	Challenges in hemivertebra resection - strategy and timing	**Masood Shafafy (UK)**
10:30	Managing complex combined dysraphism and scoliosis	**Rob Dunn (South Africa)**
10:45	Managing rigid thoracic kyphosis in ambulatory children	**Stefan Parent (Canada)**
11:00	Challenges in managing conjoined ribs in congenital spinal deformity	**Firoz Miyanji (Canada)**
11:15	Is there a role for growth modulation in congenital or dysraphic deformity	**René Castelein (Netherlands)**
11:30		
12:00-13:30 Break		



Lunch Workshop Topic: NSpine Lunch Symposium: Early Childhood Fusion / Chair: Ralf Stücker (Germany)		
12:20 lunch workshop	Is there a role for release and growth modulation of congenital fusions in the young child	**Firoz Miyanji (Canada)**
12:40 lunch workshop	Longterm effects of early childhood fusion procedures	**Michael Ruf (Germany)**
13:00 lunch workshop	Achieving optimal spine length in young children with severe spinal deformity	**Ralf Stücker (Germany)**
12:00-13:30 Break		



Topic: Neuromuscular Scoliosis / Chair: Masood Shafafy (UK)		
13:30	Neuromuscular scoliosis in muscular dystrophy and spinal muscular atrophy - surgical timing and strategies	**Masood Shafafy (UK)**
13:45	Semi-flexible scoliosis correction in mobile cerebral palsy	**Areena D'Souza (Germany)**
14:00	Spine surgery challenges in major curves in cerebral palsy	**Michael Ruf (Germany)**
14:15	Advanced techniques and the use of halo-pelvic traction in large magnituge curves	**Masood Shafafy (UK)**
14:30	When to instrument to the pelvis or lumbar spine in neuromuscular scoliosis	**Michael Ruf (Germany)**
14:45	Neurosurgical techniques in managing spasticity	**G Balamurali (India)**
15:00	Combined deformity correction and dorsal rhizotomy in cerebral palsy	**Masood Shafafy (UK)**
15:15	Expansile thoracoplasty for thoracic hyperlordosis in cerebral palsy	**Areena D'Souza (Germany)**
15:30	Discussion	
16:00-16:30 Break		



Topic: Dysraphic / Congenital / Syndromic Paediatric Deformity 3 / Chair: Kenneth Cheung (Hong Kong)		
16:30	Paediatric spinal deformity correction in bone formation disorders	**René Castelein (Netherlands)**
16:45	Paediatric deformity in achondroplasia - treatment options and strategies	**Stefan Parent (Canada)**
17:00	Role of Combined Selective Dorsal rhizotomy and posterior correction of spastic neuromuscular scoliosis	**Masood Shafafy (UK)**
17:15	Surgical challenges in uncommon syndromic spinal deformity	**Patrick Kiely (Ireland)**
17:30	Surgical techniques in Scheuermann kyphosis	**Stefan Parent (Canada)**
17:45	Discussion	
18:00 Close		

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Topic: Spinal Cord Injury 1 / Chair: Ricardo Rodrigues-Pinto (Portugal)

9:30	Medical management of SCI – current guidelines and evidence	**Ian Vlok (South Africa)**
9:45	Minimalism but comprehensiveness in Spinal Cord Injury Management	**Harvinder Chhabra (India)**
10:00	The role of the MRI in Acute SCI	**Doris Maier (Germany)**
10:15	Clinical assessment in acute spinal cord injury	**Ricardo Rodrigues-Pinto (Portugal)**
10:30	Biomarkers in spinal cord injury research - an unmet need	**Lukas Grassner / Doris Maier (Germany)**
10:45	Timing of surgery in spinal cord injury	**Harvinder Chhabra (India)**
11:00	Expansile duroplasty for acute spinal cord injury	**David Welsh (South Africa)**
11:15	Acute traumatic central cord syndrome without associated cervical spine fracture: Conservative Vs Surgical Management	**Harvinder Chhabra (India)**
11:30	Discussion	
	12:00-13:30 Break	



Topic: Spinal Cord Injury 2 / Chair: Doris Maier (Germany)

13:30	Role of EARLY rehabilitation in improving outcome in acute SCI	**Doris Maier (Germany)**
13:45	Management of the paralytic abdomen in acute SCI	**Harvinder Chhabra (India)**
14:00	Bedsores in SCI – economic impact	**Nick Kruger (South Africa)**
14:15	Management of complex decubital ulcers in spinal cord injury	**Doris Maier (Germany)**
14:30	Optimising hand and arm function in tetraplegia	**Harvinder Chhabra (India)**
14:45	SCI - considerations for return to sports	**Doris Maier (Germany)**
15:00	Advances in sexual rehabilitation in SCI	**Harvinder Chhabra (India)**
15:15	Current developments in spinal cord stimulation	**TBD**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Spinal Cord Injury 3 / Chair: Harvinder Chhabra (India)

16:30	Medicolegal challenges in SCI	**Nick Kruger (South Africa)**
16:45	Postraumatic spinal deformity - treatment strategies	**Ricardo Rodrigues-Pinto (Portugal)**
17:00	Prevention and management of posttraumatic syringomyelia	**Paulo Pereira (Portugal)**
17:15	Managing spasticity following spinal cord injuries	**Harvinder Chhabra (India)**
17:30	End of life in SCI	**Nick Kruger (South Africa)**
17:45	Discussion	
	18:00 Close	

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Topic: Lumbar Degeneration and Arthroplasty / Chair: Kenneth Cheung (Hong Kong)		
9:30	Pathophysiology of lumbar intervertebral disc degeneration, what have I learnt in the past 20 years	**Kenneth Cheung (Hong Kong)**
9:45	Advanced imaging in disc degeneration	**BT Pushpa (India)**
10:00	Is preoperative fat infiltration in lumbar spine muscles associated with worse clinical outcome after lumbar interbody fusion	**Tiago Barbosa (Portugal)**
10:15	Minimally invasive nucleus replacement	**Michael Hess (Germany)**
10:30	Theatre set-up and midline arthroplasty technique	**Biren Desai (Germany)**
10:45	Update on evidence and long-term follow-up for lumbar disc replacement	**Nuno Neves (Portugal)**
11:00	Hybrid and multi-level solutions in lumbar disc arthroplasty	**Biren Desai (Germany)**
11:15	OLIF in anterior reconstruction	**Kenneth Cheung (Hong Kong)**
11:30	Discussion	
	12:00-13:30 Break	



Topic: G-Spine Emerging Technology / Chair: Biren Desai (Germany)		
13:30	Advances in 3D printed cage design to facilitate osteoinduction	**Robert Schultz (Aesculap)**
13:45	Advances in edplate design in osteoconductice interbody fusion devices	**Syntropiq (TBD)**
14:00	Carbon composite technology in spinal implants	**Coligne (TBD)**
14:15	Advances in posterior dynamic fixation	**Surgalign (TBD)**
14:30	Surgify smart bone cutting technology	**Surgify (TBC)**
14:45	Smart vacuum poisitioning in spine surgery	**Schuchmann (TBC)**
15:00	Our vision of spine surgery in the next decade	**(TBC)**
15:15	Improving pedicle screw purchase with woven anchors	**Woven (TBC)**
15:30	Discussion	
	16:00-16:30 Break	

GSPINE

Topic: G-Spine Emerging Technology		
16:30		
16:45		
17:00		
17:15		
17:30		
17:45		
	18:00 Close	

DAY 3
THURSDAY JUNE 2nd

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Topic: Keynotes Thursday		
8:00	Solutions to spine care in severely resource limited environment	**Ian Vlok (South Africa)**
8:20	Lessons of life as a spine surgeon	**Randal R Betz (USA)**
8:40	Lessons of life as a spine surgeon	**Dietrich Schlenzka (Finland)**
	9:00-9:30 Break	



Topic: Thoracolumbar - Pelvic Trauma 1 / Chair: Ian Zondagh (South Africa)		
9:30	Effective bracing in T-L and Lumbar fractures	**Ian Zondagh (South Africa)**
9:45	Less invasive posterior reduction and stabilisation in TL fractures	**Stefan Hauck (Germany)**
10:00	Anterior column reconstruction in trauma - when and how	**Nick Kruger (South Africa)**
10:15	Thoracoscopic spondylodesis of fresh unstable thoracolumbar spinal fractures	**Stefan Hauck (Germany)**
10:30	Single-stage Posterior Reconstruction of Unstable Thoracolumbar Burst Fractures	**Bruno Santiago (Portugal)**
10:45	Dealing with traumatic dural disruption and neural tissue prolapse in thora-columbar fractures	**David Welsh (South Africa)**
11:00	Delayed presentation of spinal trauma	**Alex van der Horst (South Africa)**
11:15	Update on vertebral augmentation techniques in trauma	**Stefan Hauck (Germany)**
11:30	Discussion	
	12:00-13:30 Break	

Lunch Workshop Topic: Delegate Case Forum: Degenerative Panel / Chair: Paulo Pereira (Portugal)		
12:20 lunch workshop	Delegate case TBD	**Marcio Ramalha Cunha (Brazil)**
12:40 lunch workshop	Delegate case TBD	**Paulo Pereira (Portugal)**
13:00 lunch workshop	Delegate case TBD	**Ciaran Bolger (Ireland)**
	12:00-13:30 Break	



Topic: Thoracolumbar - Pelvic Trauma 2 / Chair: Sanesh Miseer (South Africa)		
13:30	Non-missile penetrating injuries of the spine	**Ian Vlok (South Africa)**
13:45	Sepsis in traumatic spinal injuries - management strategies	**David Welsh (South Africa)**
14:00	Acute and delayed projectile injuries to the spine: Management challenges and lessons learnt	**Ian Vlok (South Africa)**
14:15	Spinal fractures in ankylosing spondylitis	**Sanesh Miseer (South Africa)**
14:30	Insufficiency fractures	**Schalk Burger (South Africa)**
14:45	Managing combined spine and pelvic injuries	**Stefan Hauck (Germany)**
15:00	Lumboopelvic dissociation: indications and techniques for fixation	**Sanesh Miseer (South Africa)**
15:15	Traumatic sacral fractures	**Ian Zondagh (South Africa)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Trauma Case Discussion Forum: Thoracic Fractures / Chair: Alex van der Horst (South Africa)		
16:30	Case discussion - challenging case from my practice	**Stefan Hauck (Germany)**
16:45	Case discussion - challenging case from my practice	**Bruno Santiago (Portugal)**
17:00	Case discussion - Long level coronal thoracic fractures	**Johan Davis (South Africa)**
17:15	Case discussion -Thoracic instrumentation in severe obesity	**Alex van der Horst (South Africa)**
17:30	Case discussion - High thoracic fracture that is neurologically incomplete - go long?	**Ian Vlok (South Africa)**
17:45	Case discussion - post-traumatic kyphosis in thoracic fractures	**David Welsh (South Africa)**
	18:00 Close	

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Topic: Neuromonitoring 1 / Chair: Winfried Roth (Germany)		
9:30	Neuromonitoring in spine surgery - biophysical principles of MEP and SSEP	**Fa Langer (Germany)**
9:45	Anaesthetic considerations in neuromonitoring cases - optimising anaesthetic for signalintensity	**Winfried Roth (Germany)**
10:00	Advanced neuromonitoring techniques in spine surgery	**Fa Langer (Germany)**
10:15	Neuromonitoring in the very young child - is it different?	**Fa Langer (Germany)**
10:30	Neuromonitoring in patients with epilepsie - what is the risk?	**Fa Langer (Germany)**
10:45	Epidural analgesia and neuromonitoring	**Fabian Geiselbrecht (Germany)**
11:00	Bite injury in use of MEP monitoring	**Robert Nowicki (UK)**
11:15	Intraoperative Neuromonitoring of pelvic nerves	**Fa Langer (Germany)**
11:30	Discussion	
	12:00-13:30 Break	



Lunch Workshop Topic: Fa Langer Lunch Symposium: Neuromonitoring Incidents Chair: Patrick Kiely (Ireland)		
12:20 lunch workshop	Strategies to reduce neurologic injury during deformity correction surgery	**Kenneth Cheung (Hong Kong)**
12:40 lunch workshop	Interpreting IONM alerts during surgery for AIS	**Randal Betz (USA)**
13:00 lunch workshop	Surgical team actions in neuromonitoring signal loss	**Patrick Kiely (Ireland)**
	12:00-13:30 Break	



Topic: Neuromonitoring 2 / Chair: Randal Betz (USA)		
13:30	Identifying neurological high risk deformity cases	**Kenneth Cheung (Hong Kong)**
13:45	Surgical strategy in the child with spine deformity and neurological compromise	**Patrick Kiely (Ireland)**
14:00	MEP loss - how low can you go ?	**Randal Betz (USA)**
14:15	Conducting wake-up tests for monitoring loss	**Robert Nowicki (UK)**
14:30	Surgical decision making and salvage strategy in high grade intraoperative signal loss	**Masood Shafafy (UK)**
14:45	Perioperative management of the child with neurological deficit following surgery	**Randal Betz (USA)**
15:00	Returning to theatre following signal loss	**Patrick Kiely (Ireland)**
15:15	Using neuromonitoring in neurosurgical spine procedures to avoid deficit	**Fa Langer (Germany)**
15:30	Discussion	
	16:00-16:30 Break	

DR. LANGER
MEDICAL

Topic: Neuromonitoring 2 / Chair: Fa Langer (Germany)		
16:30	Hands-on demonstration and turorial	**Fa Langer (Germany)**
16:45	Hands-on demonstration and turorial	**Fa Langer (Germany)**
17:00	Hands-on demonstration and turorial	**Fa Langer (Germany)**
17:15	Hands-on demonstration and turorial	**Fa Langer (Germany)**
17:30	Hands-on demonstration and turorial	**Fa Langer (Germany)**
17:45	Hands-on demonstration and turorial	**Fa Langer (Germany)**
	18:00 Close	

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Topic: Cervical and Intraspinal Tumours / Chair: G Balamurali (India)		
9:30	Intraspinal tumours - what the surgeon needs to look for on imaging	**Paulo Pereira (Portugal)**
9:45	Recognising and treating spinal meningeoma	**G Balamurali (India)**
10:00	Surgical strateties in challenging ependymomas	**Jake Timothy (UK)**
10:15	MIS surgery for spinal cord tumours	**G Balamurali (India)**
10:30	Evolving MIS endoscopic techniques in tumour resection	**Marcio Ramalha Cunha (Brazil)**
10:45	Know your enemy - behaviour of different spine metastasis types	**Alex Disch (Germany)**
11:00	Indications and strategies for separation surgery	**Paulo Pereira (Portugal)**
11:15	Ablation technology in spinal metastasis	**Alex Disch (Germany)**
11:30	Discussion	
	12:00-13:30 Break	



Topic: Spinal Metastasis / Chair: Dan Resnick (USA)		
13:30	When and how to use carbon implants in spinal tumour surgery	**Alex Disch (Germany)**
13:45	Management strategies in metastatic tumour recurrence	**Bruno Santiago (Portugal)**
14:00	When is aggressive en-bloc excision still indicated in spinal metastasis	**Alex Disch (Germany)**
14:15	Assessing craniocervical spine tumours and surgical planning	**Ciaran Bolger (Ireland)**
14:30	Technical advances in craniocervical reconstructive techniques	**Bruno Santiago (Portugal)**
14:45	Balancing tumour clearance and surgical morbidity in craniocervical surgery	**Marcio Ramalha Cunha (Brazil)**
15:00	Handling of the vertebral artery in cervical spine tumour surgery	**Dan Resnick (USA)**
15:15	Transoral microsurgical or endoscopic transnasal craniocervical surgery - when to choose which	**Ciaran Bolger (Ireland)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Primary and Paediatric Spine Tumours / Chair: Alex Disch (Germany)		
16:30	Overview of paediatric spine tumours and current management concepts	**Laurel Blakemore (USA)**
16:45	Treatment options in Ewings Sarcoma	**Alex Disch (Germany)**
17:00	All-posterior total en-bloc spondylectomy for treatment of lumbar vertebral Ewing Sarcoma	**Sara E Diniz (Portugal)**
17:15	Reconstructive tumour surgery of the spine in children	**Alex Disch (Germany)**
17:30	Challenges of treating paediatric spine tumours in children with substantial growth expectation	**Laurel Blakemore (USA)**
17:45	Discussion	
	18:00 Close	

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Topic: Spinal Endoscopy / Chair: Miguel Loureiro (Portugal)		
9:30	Spine endoscopy in Azores Islands - a challenge how and why we started	**Luis Soares (Portugal)**
9:45	Advances in transforaminal endoscopic techniques	**Frank Hassel (Germany)**
10:00	Endoscopic transforaminal lumbar discectomy / preliminary clinical results	**Sara E. Diniz (Portugal)**
10:15	Advances in interlaminar endoscopic techniques	**Miguel Loureiro (Portugal)**
10:30	Utilising endoscopic techniques in combined adult deformity and neural compression	**Frank Hassel (Germany)**
10:45	State of the art microsurgical techniques in the lumbar spine - what the endoscope cannot do	**Ciaran Bolger (Ireland)**
11:00	Emerging possibilities in biportal endoscopy	**Frank Hassel (Germany)**
11:15	Complications in endoscopic spine surgery	**Miguel Loureiro (Portugal)**
11:30	Discussion	
	12:00-13:30 Break	



Topic: Lateral MIS Surgery / Chair: Navin Verghese (UK)		
13:30	Theatre set-up and lateral L5/S1 ALIF technique	**Jake Timothy (UK)**
13:45	Theatre set-up and pre- and transpsoas lateral access techniques	**Navin Verghese (UK)**
14:00	MIS lateral thoracolumbar techniques	**Jake Timothy (UK)**
14:15	Theatre set-up and combined posterior / lateral single position surgery	**Navin Verghese (UK)**
14:30	Vascular complications in lateral surgery - strategies	**Jake Timothy (UK)**
14:45	Radiologic and clinical outcomes using "target" view fluoroscopic technique for inserting 311 percutaneous pedicle screws	**Jeff Golan (USA)**
15:00	Combining endoscopy and fusion	**Miguel Loureiro (Portugal)**
15:15	Minimising dural leaks in MIS surgery	**G Balamurali (India)**
15:30	Discussion	
	16:00-16:30 Break	



Topic: Anaesthesia Aspects of Paediatric Deformity Surgery / Chair: Robert Nowicki (UK)		
16:30	Blood management in children	**Fabian Geiselbrecht (Germany)**
16:45	Analgesia in the very young child	**Winfried Roth (Germany)**
17:00	Epidural catheter analgesia after paediatric spine deformity surgery	**Fabian Geiselbrecht (Germany)**
17:15	Perioperative iv and oral pain management in children	**Winfried Roth (Germany)**
17:30	Effect of enhanced recovery pathway resulting in reduced length of stay and opioid consumption after non-fusion anterior scoliosis surgery for AIS	**Keyur Akbari (India)**
17:45	Discussion	
	18:00 Close	

DAY 4
FRIDAY JUNE 3rd

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Topic: Keynotes Friday		
8:00	The challenge of effective surgical training	**Bronek Boszczyk (NSpine)**
8:20	Spinal training in the time of Covid - How far behind are we?	**Ian Vlok (South Africa)**
8:40	TBD	**Portuguese Spine Society**
	9:00-9:30 Break	

Topic: Spine Trauma Cases - as bad as it gets / Chair: South African Spine Society		
9:30	Case discussion - challenging case from my practice	**South African Spine Society**
9:45	Case discussion - challenging case from my practice	**Stefan Hauck (Germany)**
10:00	Case discussion - challenging case from my practice	**Alex Disch (Germany)**
10:15	Case discussion - challenging case from my practice	**Ricardo Rodrigues-Pinto (Portugal)**
10:30	Case discussion - challenging case from my practice	**South African Spine Society**
10:45	Case discussion - challenging case from my practice	**Stefan Hauck (Germany)**
11:00	Case discussion - challenging case from my practice	**Alex Disch (Germany)**
11:15	Case discussion - challenging case from my practice	**South African Spine Society**
11:30	Case discussion - challenging case from my practice	

Topic: Deformity Cases - Challenging Case Discussion / Chair: Portuguese Spine Society		
9:30	Case discussion - challenging case from my practice	**Nuno Alegrete (Portugal)**
9:45	Case discussion - challenging case from my practice	**Bronek Boszczyk (Germany)**
10:00	Case discussion - challenging case from my practice	**Kenneth Cheung (Hong Kong)**
10:15	Case discussion - challenging case from my practice	**Laurel Blakemore (USA)**
10:30	Case discussion - challenging case from my practice	**Nuno Alegrete (Portugal)**
10:45	Case discussion - challenging case from my practice	**Bronek Boszczyk (Germany)**
11:00	Case discussion - challenging case from my practice	**Kenneth Cheung (Hong Kong)**
11:15	Case discussion - challenging case from my practice	**Laurel Blakemore (USA)**
11:30	Case discussion - challenging case from my practice	

Topic: Degenerative & infection Cases - Challenging Case Discussion / Chair: Portuguese Spine Society		
9:30	Case discussion - challenging case from my practice	**Nuno Neves (Portugal)**
9:45	Case discussion - challenging case from my practice	**Jake Timothy (UK)**
10:00	Case discussion - challenging case from my practice	**Navin Verghese (UK)**
10:15	Case discussion - challenging case from my practice	**Miguel Loureiro (Portugal)**
10:30	Case discussion - challenging case from my practice	**Nuno Neves (Portugal)**
10:45	Case discussion - challenging case from my practice	**Jake Timothy (UK)**
11:00	Case discussion - challenging case from my practice	**Navin Verghese (UK)**
11:15	Case discussion - challenging case from my practice	**Miguel Loureiro (Portugal)**
11:30	Case discussion - challenging case from my practice	

INDUSTRY FAREWELL LUNCH