

**Course Day ONE:**  
**November 28<sup>th</sup> 2016, Monday**

07:00 – 07:30      **N. Alshafai**, Introduction

**“Spine Surgery Chapter”**

07:30 – 08:00      **N. Alshafai**, Biomechanics of the spine

08:00 – 08:45      **R. Mannion**, Decompressing the spine – When and How?

08:45 – 09:30      **A. Levi**, Reconstructing the spine – When and How?

09:30 – 09:45      **Coffee Break**

09:45 – 10:15      **N. Alshafai**, Spinal column tumors- A to Z

10:15 – 10:30      **N. Thomas**, Case discussion

10:30 – 11:00      **A. Levi**, Spinal cord injury and beyond

11:00 – 11:30      **N. Thomas**, Cervical Spinal column trauma - Classification and surgical management

11:30 – 12:00      **A. Levi**, Thoracolumbar Spinal column trauma - Classification and surgical management

12:00 – 13:00      **Lunch Break**

**“Peripheral Nerve Surgery Chapter”**

13:00 – 13:30      **R. Spinner**, How to do a peripheral nerve clinical examination- illustration

13:30 – 14:15      **R. Spinner**, Diagnosis and surgical management of Peripheral nerves (Brachial plexus)

14:15 – 14:45      **R. Spinner**, Diagnosis and surgical management of Peripheral nerves (Upper extremities)

14:45 – 15:00      **Anna Jaron**, Stretch Exercises

15:00 – 15:30      **R. Spinner**, Diagnosis and surgical management of Peripheral nerves (Lumbosacral plexus and Lower extremities)

15:30 – 16:30      Peripheral Nerve - Station:

**R. Spinner (Rochester)**  
**A. Levi (Miami)**  
**M. Cusimano (Toronto) - Auditor**

16:30: **Participants will divide into five small groups**  
(Will rotate attending 4 out of 5 stations)

**55 minutes each station**

**Small Groups**

**Four cases in each station**

**Round table Discussions of clinical case scenarios**

(Dinner will be served at 18:00)

Spine Imaging and Pathology – Station 1

(All groups will have to attend station 1):

**J. Rossiter (Kingston)**  
**L. Alshafai (Toronto)**  
**D. Schul (Munich) - Auditor**

Spine – Station 2:

(All groups will have to attend station 2):

**A. Levi (Miami)**  
**F. Roser (Abu Dhabi)**  
**R. Czepko (Krakow) - Auditor**

Spine - Station 3:

(All groups will have to attend station 3):

**N. Thomas (London)**  
**J. Schramm (Bonn)**

Spine - Station 4:

**R. Mannion (Cambridge)**  
**MC Wallace (Kingston)**

Spine - Station 5:

**TBA (TBA)**  
**M. Cusimano (Toronto)**

20:30 **Adjourn**

**Course Day Two:  
November 29<sup>th</sup> 2016, Tuesday**

**“Skull base & Oncologic Surgery Chapter”**

- 07:30 – 08:30 **J. Rossiter**, Brain tumor pathology
- 08:30 – 08:40 **N. Alshafai**, Evaluation of Day 1
- 08:40 – 09:00 **N. Alshafai**, Anatomico-radiological approach to the gyri and sulci
- 09:00 – 09:15 **Coffee Break**
- 09:15 – 10:00 **B. Lippitz**, Neurosurgical principals of radiosurgery
- 10:00 – 11:30 **M. Cusimano**, Skull base lesions. Cases and pearls from the frontal sinus to the foramen magnum
- 11:30 - 12:00 **Neuro-oncology cases with expert faculty discussion**  
**Moderator (will audit voting): N. Alshafai**  
**Presenters:**  
**N. Thomas (London)** 15:45 – 16:00  
**F. Roser (Abu Dhabi)** 16:00 – 16:15
- 12:00 – 13:00 **Lunch Break**

**“Functional & Pain Surgery Chapter”**

- 13:00 – 13:30 **A. Lozano**, Introduction to Surgical anatomy and physiology for the Pain and functional neurosurgeon
- 13:30 – 14:15 **A. Lozano**, Surgical management of movement disorders and stereotactic surgery
- 14:15 – 15:00 **A. Lozano**, Surgical management of pain and spasticity
- 15:00 – 15:15 **Anna Jaron**, Stretch Exercises
- 15:15 – 16:00 Pain and movement disorders Station:  
**A. Lozano (Toronto)**  
**B. Lippitz (Hamburg)**  
**P. McGeoch (Edinburgh) - Auditor**
- 16:00 – 16:30 **T. Krings**, Tumor Mimics

16:30: **Participants will divide into five small groups**  
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**55 minutes each station**

**Small Groups**

**Four cases in each station**

**Round table Discussions of clinical case scenarios**

(Dinner will be served at 18:00)

Brain tumors Imaging and pathology – differentials to working diagnosis - Station 1:

(All groups will have to attend station 1):

**J. Rossiter (Kingston)**

**T. Krings (Toronto)**

**R. Mannion (Cambridge) - Auditor**

Skull-base- Station 2:

(All groups will have to attend station 2):

**M. Cusimano (Toronto)**

**F. Roser (Abu Dhabi)**

**R. Czepko (Krakow) - Auditor**

Pituitary disorders – Station 3:

(All groups will have to attend station 3):

**A. Grotenhuis (Neijmegen)**

**W.T. Couldwell (Salt Lake)**

Neuro-oncology - Station 4:

**N. Thomas (London)**

**J. Schramm (Bonn)**

Neuro-oncology – Station 5:

**R. Kirollos (Cambridge)**

**MC Wallace (Kingston)**

20:30

**Adjourn**

**Course Day Three:**  
**November 30<sup>th</sup> 2016, Wednesday**

**“Cerebrovascular & Endovascular Chapter”**

- 07:30 – 08:30 **T. Krings**, Surgical anatomy and physiology “The Arterial & Venous System”
- 08:30 – 09:00 **MC Wallace**, Rapping it up, Surgical anatomy and physiology “The Arterial & Venous System”
- 09:00 – 09:20 **T. Krings** Surgical and endovascular management of Stroke
- 09:20 – 09:30 **MC Wallace**, Rapping it up, Surgical and endovascular management of Stroke
- 09:30 – 09:45 **Coffee Break**
- 09:45 – 11:00 **M. Javadpour, M.C. Wallace & T. Krings**, Intra-cerebral Hemorrhage, pearls of brain vascular malformation, Surgical and Endovascular management
- 11:00 – 11:15 **N. Alshafai**, Evaluation of Day 2
- 11:15 – 12:00 *The Wallace - Cusimano Honorary Lectureship:*  
**W.T. Couldwell**, Surgical approaches to deep brain lesions
- 12:00 – 13:00 **Lunch Break**
- 13:00 – 14:30 **L. Regli, M.C. Wallace & T. Krings**, Pearls in the management of Aneurysms and Sub arachnoid hemorrhage
- 14:30 – 14:45 **Anna Jaron**, Stretch Exercises
- 14:45 – 15:15 **M.C. Wallace**, Cavernous malformation
- 15:15 – 15:45 **L. Regli**, vascular Bypass surgery (Why, When and how)
- 15:45 – 16:15 **Cerebrovascular cases with expert faculty discussion**  
**Moderator (will audit voting): N. Alshafai**  
**Presenters:**  
**R. Kirollos** 15:45 – 16:00  
**M. Javadpour** 16:00 – 16:15
- 16:30: **Participants will divide into five small groups**

(Will rotate attending 4 out of 5 stations)

**55 minutes each station**

**Small Groups**

**Four cases in each station**

**Round table Discussions of clinical case scenarios**

(Dinner will be served at 18:00)

Endovascular and Interventional Neuroradiology - Station 1:

(All groups will have to attend station 1):

**T. Krings (Toronto)**

**M. Wiedmann (Oslo)**

**D. Schul (Munich) - Auditor**

Deep Cranial lesions - Station 2:

(All groups will have to attend station 2):

**W.T. Couldwell (Salt Lake)**

**A. Grotenhuis (Nijmegen)**

**N. Thomas (London) - Auditor**

Cerebrovascular - Station 3:

(All groups will have to attend station 3):

**MC Wallace (Kingston)**

**J. Schramm (Bonn)**

Cerebrovascular – Station 4:

**L. Regli (Zurich)**

**M. Cusimano (Toronto)**

Cerebrovascular - Station 5:

**M. Javadpour (Dublin)**

**R. Kirollos (Cambridge)**

20:30

**Adjourn**

21:00 – 24:00

**“Networking Reception”**

Meet your colleagues and faculty from all-around the world in a relaxed atmosphere. “Complimentary event”

**Course Day Four:**  
**December 1<sup>st</sup> 2016, Thursday**

**“Epilepsy Surgery Chapter”**

- 07:30 – 08:00      **T. Krings**, Imaging in epilepsy
- 08:00 – 08:15      **J. Rossiter**, Pathology in epilepsy
- 08:15 – 08:45      **J. Schramm**, Drug resistant epilepsy: Evaluation
- 08:45 – 09:00      **Coffee Break**
- 09:00 – 10:00      **J. Schramm**, Drug resistant epilepsy: Surgical management

**“Miscellaneous Chapter”**

- 10:00 - 10:45      **A. Grotenhuis**, Surgical management of ventricular lesions (open and endoscopic)
- 10:45 – 10:55      **N. Alshafai**, Evaluation of Day 3

**“Pediatric Neurosurgery Chapter”**

- 10:55 – 11:15      **J. Rossiter**, Pediatric specific Neuropathology
- 11:15 – 12:00      **P. Dirks**, The surgical management of Pediatric Brain tumors
- 12:00 – 13:00      **Lunch Break**
- 13:00 – 13:15      **P. Dirks**, The management of encephalo-coeles
- 13:15 – 13:45      **P. Steinbok**, Pediatric Hydrocephalus
- 13:45 – 14:15      **A. Grotenhuis**, Surgical management of Intra-cranial cysts
- 14:15 – 14:45      **P. Dirks**, Cranio-synostosis
- 14:45 – 15:00      **Anna Jaron**, Stretch Exercises
- 15:00 – 16:00      **P. Steinbok**, Chiari-malformation & Spinal Dys-raphism
- 16:00 – 16:30      **Pediatric cases with expert faculty discussion**  
**Moderator (will audit voting): N. Alshafai**  
**Presenters:**  
**F. Sala (Verona)      16:00 – 16:15**

**V. Fernandez (Alicante) 16:15 – 16:30**

16:30: **Participants will divide into five small groups**  
(Will rotate attending 4 out of 5 stations)

**55 minutes each station**

**Small Groups**

**Four cases in each station**

**Round table Discussions of clinical case scenarios**

(Dinner will be served at 18:00)

Pediatrics pathology-radiology correlation - Station 1:  
(All groups will have to attend station 1):

**TBA (TBA)**

**J. Rossiter (Kingston)**

**V. Fernandez (Alicante) - Auditor**

Epilepsy (Pediatrics & adults) - Station 2:  
(All groups will have to attend station 2):

**J. Schramm (Bonn)**

**W. Couldwell (Salt Lake)**

**R. Kirollos (Cambridge) - Auditor**

Neuro-endoscopy – Station 3:  
(All groups will have to attend station 3):

**A. Grotenhuis (Neijmegen)**

**M. Cusimano (Toronto)**

Pediatrics - Station 4:

**P. Dirks (Toronto)**

**F. Sala (Verona)**

Pediatrics - Station 5:

**P. Steinbok (Vancouver)**

**P. Gonzales (Alicante)**

20:30

**Adjourn**



**Course Day Five:**  
**December 2<sup>nd</sup> 2016, Friday**

**“Head injury and Neuro critical care Chapter”**

- 07:30 – 08:00      **J. Rossiter**, Neuropathology in head injury
- 08:00 – 08:45      **A. Belli**, The management of traumatic brain injury I
- 08:45 – 09:00      **TBA**, Case discussion
- 09:00 – 09:15      **Coffee Break**
- 09:15 – 10:00      **G. Hawryk**, The management of traumatic brain injury II
- 10:00 – 11:00      Brain Trauma - Station:  
**A. Belli (Birmingham)**  
**G. Hawryk (Salt Lake)**  
**R. Kirollos (Cambridge) - Auditor**

**“Miscellaneous Chapter”**

- 11:00 – 11:30      **P. Gonzalez**, Brain White-matter anatomy for the oncologic and functional neurosurgeon
- 11:30 – 12:00      **F. Sala**, Intra-operative Neuro-monitoring (Cranial & Spinal)
- 12:00 – 13:00      **Lunch Break**

**“Neuro-oncology Chapter”**

- 13:00 – 13:30      **M. Sabel**, Brain metastasis
- 13:30 – 13:45      **M. Sabel**, Brain mapping and awake craniotomy
- 13:45 – 14:00      **N. Alshafai**, Evaluation of Day 4 & Trauma/Critical care chapter
- 14:00 – 15:00      **M. Sabel**, The management of Gliomas
- 15:00 – 15:15      **Anna Jaron**, Stretch Exercises
- 15:00 – 16:00      Oncology Station:  
**M. Sabel (Dusseldorf)**  
**MC Wallace (Kingston)**  
**P. Dirks (Toronto) - Auditor**

**“Miscellaneous Chapter”**

16:00 – 16:45	<b>J Lazarou</b> , Neurology for the neurosurgeons
<u>16:45 – 17:45</u>	<u>General Neurosurgery Station:</u> <b>J. Lazarou (Toronto)</b> <b>MC Wallace (Kingston)</b> <b>G. Hawryk (Salt Lake) - Auditor</b>
17:45 – 18:30	<b>N. Alshafai</b> , <b>Feedback distribution to all participants for their performance during the week</b>
18:30 – 19:00	Break <b>Certificates will be distributed</b> “Dinner will be served”
19:00 – 21:00	<i>The CCN Review Challenge</i> “Mandatory attendance”
21:00	<b>Adjourn</b> , End of Course
21:30 - Open	End of the course party

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