



Course Day ONE:
November 28th 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 **F. Roser**, 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)
A. Lin (Toronto)
P. McGeoch (Edinburgh) - 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:

D. Schul (Munich)
MC Wallace (Kingston)

Spine - Station 5:

TBA (TBA)
M. Cusimano (Toronto)

20:30 **Adjourn**

Course Day Two:
November 29th 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 – 17:00 **N. Alshafai**, Exam review

17:00 **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 18:30)

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)

D. Schul (Munich) - 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)

21:00

Adjourn

Course Day Three:
November 30th 2016, Wednesday

“Cerebrovascular & Endovascular Chapter”

- 07:30 – 08:00 **T. Krings**, Surgical anatomy and physiology “The Venous System”
- 08:00 – 08:30 **MC Wallace**, Surgical anatomy and physiology “The Arterial System”
- 08:30 – 09:00 **T. Krings & MC Wallace** Surgical and endovascular management of Stroke
- 09:00 – 09:15 **Coffee Break**
- 09:15 – 10:30 **R. Kirollos, M.C. Wallace & T. Krings**, Intra-cerebral Hemorrhage, pearls of brain vascular malformation, Surgical and Endovascular management
- 10:30 – 10:45 **N. Alshafai**, Evaluation of Day 2
- 10:45 – 11:15 **M.C. Wallace**, Cavernous malformation
- 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 **L. Regli**, vascular Bypass surgery (Why, When and how)
- 15:15 – 15:45 **Cerebrovascular cases with expert faculty discussion**
Moderator (will audit voting): N. Alshafai
Presenters:
R. Kirollos 15:45 – 16:00
M. Wiedmann 16:00 – 16:15
- 15:45 – 16:15 **N. Alshafai**, Exam review

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 18:15)

Endovascular and Interventional Neuroradiology - Station 1:
(All groups will have to attend station 1):

T. Krings (Toronto)
M. Wiedmann (Oslo)
A. Lin (Toronto) - Auditor

Deep Cranial lesions - Station 2:
(All groups will have to attend station 2):

W.T. Couldwell (Salt Lake)
A. Grotenhuis (Nijmegen)
P. Gonzalez (Alicante) - Auditor

Cerebrovascular - Station 3:
(All groups will have to attend station 3):

MC Wallace (Kingston)
D. Schul (Munich)

Cerebrovascular – Station 4:

L. Regli (Zurich)
M. Cusimano (Toronto)

Cerebrovascular - Station 5:

R. Kirollos (Cambridge)
J. Schramm (Bonn)

20:30 **Adjourn**

21:15 – 24:00 **“Networking Reception”**
Meet your colleagues and faculty from all-around the world
in a relaxed atmosphere. “Complimentary event”



Course Day Four:
December 1st 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):

J. Rossiter (Kingston)

A. Lin (Toronto)

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 2nd 2016, Friday

“Head injury and Neuro critical care Chapter”

07:30 – 08:00	J. Rossiter , Neuropathology in head injury
08:00 – 08:45	G. Hawrlyk , The management of traumatic brain injury I
08:45 – 09:00	G. Hawrlyk , Penetrating Non-Missile Case Discussion
09:00 – 09:15	Coffee Break
09:15 – 10:00	A. Belli , The management of traumatic brain injury II
<u>10:00 – 11:00</u>	<u>Brain Trauma - Station:</u> A. Belli (Birmingham) G. Hawrlyk (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 – 14:30	M. Sabel , Management of Brain Infiltration (Primary & Secondary)
14:30 – 14:45	N. Alshafai , Evaluation of Day 4 & Trauma/Critical care chapter
14:45 – 15:00	M. Sabel , Brain mapping and awake craniotomy
15:00 – 15:15	Anna Jaron , Stretch Exercises
<u>15:15 – 16:15</u>	<u>Oncology Station:</u>

M. Sabel (Dusseldorf)
MC Wallace (Kingston)
P. Dirks (Toronto) - Auditor

“Miscellaneous Chapter”

16:15 – 17:00	J Lazarou, Neurology for the neurosurgeons
<u>17:00 – 18:00</u>	<u>General Neurosurgery Station:</u> J. Lazarou (Toronto) MC Wallace (Kingston) G. Hawryk (Salt Lake) - Auditor
18:00 – 18:45	N. Alshafai, Feedback distribution to all participants for their performance during the week
18:45 – 19:15	Break Certificates will be distributed “Dinner will be served”
19:15 – 21:00	<i>The CCN Review Challenge</i> “Mandatory attendance”
21:00	Adjourn, End of Course
21:30 - Open	End of the course party

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