

Department of Surgery Division of Neurosurgery

Head of Division: Professor Graham Fieggen

Divisional Profile

The Division achieved some notable milestones in a year which saw ad hominem promotion for Professor Tony Figaji, appointment as a Visiting Professor at the University of the Witwatersrand for Associate Professor Allan Taylor and the appointment of the first two Honorary Professors in Neurosurgery in Peter Siesjo (Lund) and Matthew Wood (Oxford). Furthermore, consultants organised and hosted two major international congresses, Emeritus Professor Kay de Villiers received the prestigious UCT Book Award for for *Healers, Helpers and Hospitals* and we were able to include a 3 month research rotation in the registrar program.

The DoHET-funded Chief Registrar post was awarded to Dr Marco Kogels after a competitive process and he fulfilled the role very effectively. This enabled us to restructure the training program to allow a research rotation and Drs Nte Mjoli, Johan Malan, David Roytowski and Edwin Mogere were all able to complete their MMed projects, with Dr Mjoli becoming the first neurosurgical registrar to pass his MMed dissertation before taking his final fellowship examination. Dr Crispin Thompson completed his training and took up a senior registrar position in Leeds; this post was filled by Dr Ncedile Mankahla.

Dr Peter Ssenyonga also completed his training and returned to Uganda to take up a position at CURE Children's Hospital in Mbale where he joined another UCT-trained neurosurgeon Dr John Mugamba. In view of this track record, CURE wished to continue their relationship with UCT in funding the training of a third Ugandan, Dr Emmanuel Wegoye who commences his training in 2012. In order to contribute to the development of neurosurgery on our continent, we have prioritised the training of supernumerary registrars from elsewhere in Africa and we are fortunate to have another two talented trainees in Dr Mogere (Kenya) and Dr Mohamed Ben-Husein (Libya).

Associate Professor Allan Taylor and Dr David Le Feuvre presented at the International Peer Review Meeting in Val d'Isere and the SNIS meeting in Colorado, USA. Professor Taylor was an invited speaker at the Canadian Congress of Neurosciences (Vancouver), the Boerhaave Course in the Netherlands and the PLANET course in Thailand. The highlight of the year was undoubtedly hosting the 11th biennial congress of the World Federation for Interventional and Therapeutic Neuroradiology in Cape Town in November. With over 1200 delegates this was the largest and most successful meeting ever of this rapidly growing international society and a real tribute to their international standing.

Dr Sally Rothemeyer, Dr Roger Melvill and Professor Fieggen hosted the Interim Meeting of the World Society for Stereotactic and Functional Neurosurgery later that month. This primarily educational meeting was also enormously successful, supported by a wide range of international experts and attended by delegates from 20 African countries.

Dr David Welsh was invited to present at the Cervical Spine Research Society meeting (St Louis, USA). Professor Semple contributed to the international consortium of pituitary surgeons and visited CURE Hospital in Uganda to consolidate our links with that institution.

Associate Professor Tony Figaji was promoted ad hominem to full professor. He was an invited speaker at the 5th World Congress of Pediatric Intensive Care Societies (Sydney, Australia), the International Neurotrauma Symposium (Shanghai, China), the 14th Interim Meeting of the WFNS (Recife, Brazil) and the XVth International Symposium on Brain Oedema (Tokyo, Japan). Furthermore he has been invited to host two international meetings, the 3rd biennial meeting of the International Society for Intraoperative Neurophysiology (2013) and the International Neurotrauma Congress (2016). He was invited to join the Pediatric Brain Injury Consortium and convened a symposium on intracerebral microdialysis attended by Professor Peter Siesjo and Dr David Cederberg (Lund, Sweden) and Dr Adel Helmy (Cambridge, UK).

Dr Llewellyn Padayachy attended the second and third cycle of the European Society for Pediatric Neurosurgery Course in Hong Kong and Malaysia, becoming the first South African neurosurgeon to graduate from this course. He presented at the International Society for Pediatric Neurosurgery meeting in Goa, India and was an invited speaker at the WFNS course in Taipei.

Professor Graham Fieggen was invited to speak at the 14th Interim Meeting of the WFNS (Recife, Brazil), the 39th ISPN Annual Meeting (Goa, India) and continued to serve on the faculty on the ESPN course (Limerick, Ireland).

The activities of the full-time staff are enhanced by regular input from both former Chairs and five part-time consultants. Emeritus Professor Jonathan Peter was supported by a DoHET grant from the Department of Surgery to help with postgraduate and undergraduate education while also playing a leading role in the development of intraoperative neurophysiology program.

Research was funded by grants from the MRC (PI: AG Fieggen) and the Wellcome Trust (PI: AA Figaji) and generous support was received from the Mauerberger Fund. Seven papers were published in international peer-reviewed journals and members of the department served on the editorial boards of Neurosurgery, Childs Nervous System, World Neurosurgery and Interventional Neuroradiology.

Members of the Division continue to play leading roles in other international and national neurosurgical organisations with Professor Semple elected as President of the College of Neurosurgeons for the triennium 2011-2014, Professor Taylor serving as Secretary of the Society of Neurosurgeons of South Africa and Dr David Welsh serving as Secretary-Treasurer of the Spine Society and AO South Africa.

Divisional Statistics

Permanent and Long Term Contract Staff

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|--------------------------|---|
| Professors | 2 |
| Associate Professor | 2 |
| Senior Lecturers | 2 |
| Lecturers | 3 |
| Registrars | 5 |
| Medical Officer | 2 |
| Supernumerary Registrars | 3 |

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|---------------------------------|-----------|
| Administrative & Clerical Staff | 1 |
| TOTAL | 20 |

Students

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|--------------|-----------|
| Doctoral | 1 |
| Master's | 9 |
| TOTAL | 10 |

Honorary Staff

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|---------------------|---|
| Emeritus Professor | 2 |
| Honorary Professors | 2 |
| Part-time Lecturers | 5 |

Research Fields

Permanent Staff

Professor Graham Fieggen

Head of Division; Paediatric and Functional Neurosurgery: spasticity in cerebral palsy, epilepsy surgery; congenital anomalies including dysraphism and the tethered spinal cord, hydrocephalus and neuroendoscopy; CNS infection; neurotrauma.

Professor Anthony Figaji

Paediatric Neurosurgery, neurotrauma and neurocritical care: CNS injury and monitoring techniques including intraoperative neurophysiology; hydrocephalus and neuroendoscopy; CNS infection including TB; neurooncology.

Associate Professor Patrick Semple

Pituitary disease and neuroendoscopy; neurocritical care, neurotrauma, neuroHIV.

Associate Professor Allan Taylor

Neurovascular: diseases, interventions and surgery; Radiosurgery, stereotactic surgery and neuronavigation; skull base surgery.

Dr David Le Feuvre, Senior Lecturer

Neurovascular: diseases, interventions and surgery; HIV vasculopathy, skull base surgery.

Dr David Welsh, Senior Lecturer

Neurospine: diseases and treatment, spinal trauma.

Dr Sally-Jane Rothemeyer, Lecturer

Functional neurosurgery: pain, epilepsy and movement disorders; neuroHIV.

Dr Llewellyn Padayachy, Lecturer

Paediatric Neurosurgery: craniofacial surgery, paediatric neurovascular diseases, neurocritical care, monitoring and neuronavigation.

Emeritus Professor Jonathan Peter
Paediatric Neurosurgery: intraoperative neurophysiology, spasticity.

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Department of Surgery Research Output

Articles in Peer-reviewed Journals

Crowell C, Kiruga JM, Figaji A, Simat K, Padayachy L, Pillay K, Yogev R. 2011. Neuroschistosomiasis due to *Schistosoma haematobium* presenting as a spinal cord tumour. *Pediatric Infectious Disease Journal*, 30 (11): 1006-1008.

Kouvarellis AJ, Rohlwink UK, Sood V, van Breda D, Gowen MJ, Figaji AA. 2011. The relationship between basal cisterns on CT and time-linked intracranial pressure in pediatric head injury. *Childs Nervous System*, 27 (7): 1139-1144.

Langerak NG, Hillier S, Fieggen AG, Peter JC. 2011. Level of activity and participation in adults with spastic diplegia 17 to 26 years after selective dorsal rhizotomy. *Journal of Rehabilitation Medicine*, 43 (4): 330-337

Langerak NG, Tam N, Vaughan CL, Fieggen AG, Schwartz MH. 2011. Gait status 17-26 years after Selective Dorsal Rhizotomy. *Gait and Posture*, Nov 1 [epub ahead of print]

Le Feuvre D, Taylor A. 2011. The management of very small/ blister internal carotid artery aneurysms. *Interventional Neuroradiology*, 17 (4): 431-434.

Mjoli N, Le Feuvre D, Taylor A. 2011. Bleeding source identification in brain arteriovenous malformations. *Interventional Neuroradiology*, 17 (3): 323-330.

Rohlwink UK, Padayachy LC, Fieggen AG, Figaji AA. 2011. The relationship between intracranial pressure and brain oxygenation in children with severe traumatic brain injury. *Neurosurgery*, Nov 30 [epub ahead of print]