

BIOGRAPHICAL SKETCH

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NAME: WILMSHURST, JO

eRA COMMONS USER NAME (credential, e.g., agency login): JOWILMSHURST

POSITION TITLE: PROFESSOR OF PAEDIATRIC NEUROLOGY

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
University of Cape Town	Doctor of Medicine	2009	Paediatrics (Peripheral Neuropathies)
Health Professions Council of South Africa	Sub-specialty accreditation	2002	Paediatric Neurology
College of Medicine of South Africa	Fellowship of College of Paediatricians	2000	Paediatrics
The Children's Hospital at Westmead, Sydney	Novartis Epilepsy Fellowship	1999-2000	Neurophysiology
The Children's Hospital at Westmead, Sydney	Peel Trust Travelling Fellowship	1999-2000	Peripheral neuropathy
Guy's Hospital, King's College Hospital	CCST subspecialist (UK)	1996-1999	Paediatric Neurology
Great Ormond Street Children's Hospital, Guy's Hospital	Certificate of Completion Specialist Training (UK)	1994-1996	Paediatrics
Royal College of Physicians, London, Guy's Hospital, London	MRCP (UK)	1994	Paediatrics
	MB BS	1984-1989	Medicine

A: Personal statement

I am head of the Paediatric Neurology service for Red Cross War Memorial Children's Hospital. This is a teaching hospital affiliated to the University of Cape Town in South Africa. It is the largest children's hospital in sub-Saharan Africa which cares for children from across the region. I am involved in clinical service provision for children with neurological complications, inclusive of a dedicated neuromuscular service, as well as a complex epilepsy service and have been involved in research studies in these areas. I have headed and contributed to a number of systematic reviews through my work for the International League Against Epilepsy. I am president of the International Child Neurology Association (2018-2022). My areas of research interest include epilepsy, neuromuscular diseases, neurocutaneous disorders and neuroinfections, especially HIV. In addition to my position as head of paediatric neurology and I am also director of a training program for doctors from Africa, the African Paediatric Fellowship Program. This training program initiated by the University of Cape aims at developing skills in paediatric disciplines for doctors from across Africa. The program is focused at skills retention through relevant training in Africa by Africans to develop leaders in child health. To date over 120 doctors have trained through the program from 14 African countries with 95% 5 year retention rates.

B. Positions and Honors

Sept 2009-present Director of the African Paediatric Fellowship Program
Feb 2000 – present Head of Paediatric Neurology and Neurophysiology Departments, Red Cross War Memorial Children's Hospital, University of Cape Town, South Africa
1999- 2000 Senior Registrar Paediatric Neurology, (Epilepsy Fellow), The New Children's Hospital at Westmead, Sydney, Australia
1996 –1998 Senior Registrar Paediatric Neurology, United Medical and Dental School King's, Guy's, King's and St. Thomas's Hospitals, London

ILAE offices held

2004-2005 Treasurer, South African branch of International League Against Epilepsy
 2010-present Committee Member of **Pediatric Commission**, ILAE
 2010-2014 Chair of the Infantile seizures guidelines task force, ILAE
 2011-present Chair for **Education, African Commission**, ILAE
 2012-2014 Co-chair of the **Guidelines committee**, ILAE
 2013-2017 Chair of the **Pediatric Commission**, ILAE
 2013-2016 Secretary, SA chapter ILAE
 2017-2021 ILAE TF/ Commissions – **Pediatrics, Education, Epilepsy Surgery, Genetics, Neuropsychiatry, Africa**

Offices held - other

- 2004-present Executive Committee Member, Paediatric Neurology and Neurodevelopmental Association of South Africa (PANDA).
- 2006-present Executive Member of the Board, International Child Neurology Association
- 2010-2014, re-elected 2014-2018; Secretary, International Child Neurology Association
- 2010-present Executive Member of the Board, African Child Neurology Association
- 2012-2015 WFN, member of the Education committee
- 2018-2022 President of International Child Neurology Association

C. Contribution to Science

As the major training centre for child neurology in sub-Saharan Africa, I have, and am, supervising postgraduate students (since 2009 masters n=14 completed, with n=7 currently completing) as well as four PhD students. Total: > 110 publications, H-index 23

Key areas of research specific to Epilepsy or related

International League Against Epilepsy

Pediatric Commission (immediate past-chair)

- International Infantile seizure guidelines (collaborative group with authors from global representation) – completed 2015, update 2021
- International neonatal guidelines – updating the previously published guidelines 2018 – present (ongoing)
- Co-morbidities of epilepsy – establishing internationally recognized evidence based guidelines for various sub-areas –collaborations across multiple centres with leaders in the field – *published in Epilepsia 2018*
- Advocacy – based on the recent WHO resolution – examining how the care for children can be improved based on this resolution – Published as a report endorsed and under the ILAE *2018 in Epilepsia Open*. Current study exploring research in Epilepsy trends in Africa.
- Neuropsychiatry task force collaboration with Ped Commission – paper published in *Epilepsia Open* on transition of care for children with intellectual disability and epilepsy.
- Adaptation of guidelines – development of frameworks to ensure transition of guidelines into clinical practice. Already commenced in part with PET (paediatric epilepsy training courses) rolled out in Cape Town (Feb 2016) establishing an African teaching faculty. (Many of the faculty represent past / present APFP trainees, who are also part of the research network for paed neurosciences). **To date over 1000 health practitioners trained in Africa on the course.**
- Paediatric neurosurgery task force - sits across Pediatric Commission and Epilepsy surgery commission – completed several surveys and will lead to various publications – good network of international contacts.

Africa Commission

- Education chair (2011-current)
- Promotion of PET courses in Africa

Education Commission

- Curriculum committee – on-line course, Primary health care curriculum (2017-current)
- Certification committee (2019-current)

Genetic Commission

- Assisting update of the current guidelines for genetic testing (2019-current)

Lancet / Lancet Neurology Task Force

- COVID guidelines for people with epilepsy (published Neurology 2020)
- Developing reports which are current and relevant to practical and pragmatic care for people with epilepsy (2019-current)

Related Publications in last 5 years

1. Kander V, Wilmschurst JM. Training doctors in basic EEG: analysis of a learning tool relevant to resource-limited settings. *Epileptic Disord*. 2015 Mar;17(1):58-66; quiz 66.
2. Ackermann S, Wilmschurst JM. Medical management of children with epilepsy. *Minerva Pediatr*. 2015 Mar;67(1):47-74.
3. Wilmschurst JM, Burman R, Gaillard WD, Cross JH. Treatment of infants with epilepsy: Common practices around the world. *Epilepsia*. 2015 Jul;56(7):1033-46.
4. Megaw K, Wilmschurst JM. The Keilah Foundation: Making the ketogenic diet viable for children in Africa. *Epilepsia*. 2015 Apr;56(4):514-6.
5. Williams N, Nefdt WM, Wilmschurst JM. *Epilepsy South Africa: Turning obstacles into true potential*. *Epilepsia*. 2015 Feb;56(2):184-7.
6. Wilmschurst JM, Gaillard WD, Vinayan KP, Tsuchida TN, Plouin P, Van Bogaert P, Carrizosa J, Elia M, Craiu D, Jovic NJ, Nordli D, Hirtz D, Wong V, Glauser T, Mizrahi EM, Cross JH. Summary of recommendations for the management of infantile seizures: Task Force Report for the ILAE Commission of Pediatrics. *Epilepsia*. 2015 Aug;56(8):1185-97.
7. Sauro KM, Wiebe S, Dunkley C, Janszky J, Kumlien E, Moshé S, Nakasato N, Pedley TA, Perucca E, Senties H, Thomas SV, Wang Y, Wilmschurst J, Jetté N. The current state of epilepsy guidelines: A systematic review. *Epilepsia*. 2016 Jan;57(1):13-23.
8. Wilmschurst JM, Ibekwe RC, O'Callaghan FJ. Epileptic spasms - 175 years on: Trying to teach an old dog new tricks. *Seizure*. 2017;44:81-86
9. Ibekwe, R Jeaven, L Wilmschurst JM. The role of Melatonin to attain Electroencephalograms in Children in a sub-Saharan African setting. In press *Seizure: Europ J Epilep* Aug 2017
10. Wilmschurst JM, Selco M, Guekt A, Cross JH, Perucca E. Advocacy In children with Epilepsy. ILAE TF. *Epilepsia Open* 2018 May 14;3(2):167-174
11. Esterhuizen A, Carvill G, Ramasar R, Kuriuki S, Newton C, Wilmschurst JM. Relevance of genetic analysis for people with Epilepsy in Africa. *Frontiers in Neurology* 2018 May 2;9:276
12. Raga SV, Wilmschurst JM. *Epileptic spasms: Evidence for oral corticosteroids and implications for low and middle income countries*. *Seizure*. 2018 Jul;59:90-98
13. Auvin S, Wirrell E, Donald KA, Berl M, Hartmann H, Valente KD, Van Bogaert P, Cross JH, Osawa M, Kanemura H, Aihara M, Guerreiro MM, Samia P, Vinayan KP, Smith ML, Carmant L, Kerr M, Hermann B, Dunn D, Wilmschurst JM. Systematic review of the screening, diagnosis, and

management of ADHD in children with epilepsy. Consensus paper of the Task Force on Comorbidities of the ILAE Pediatric Commission. Epilepsia. 2018 Oct;59(10):1867-1880.

14. Burman RJ, Wilmshurst JM, Gebauer S, Weise L, Walker KG, Donald KA. *Seizures in Children with HIV infection in South Africa: A retrospective case control study. Seizure. 2019 Jan 28;65:159-165*
15. Blümcke I, Arzimanoglou A, Beniczky S, Wiebe S; EpiEd Task Force. *Roadmap for a competency-based educational curriculum in epileptology: report of the Epilepsy Education Task Force of the International League Against Epilepsy. Epileptic Disord. 2019 Mar 20. doi: 10.1684/epd.2019.1039. [Epub ahead of print]*
16. Burman RJ, Ackermann S, Shapson-Coe A, Ndondo A, Buys H, Wilmshurst JM. *A Comparison of Parenteral Phenobarbital vs. Parenteral Phenytoin as Second-Line Management for Pediatric Convulsive Status Epilepticus in a Resource-Limited Setting. Front Neurol. 2019 May 15;10:506. doi: 10.3389/fneur.2019.00506. eCollection 2019.*
17. Kija E, Gidal BE, Shapson-Coe A, Cader S, van der Watt G, Delpont S, Wilmshurst JM. *Vitamin D abnormalities and bone turn over analysis in children with epilepsy in the Western Cape of South Africa. Seizure. 2019 Apr 29;69:186-192.*
18. Aliyu MH, Abdullahi AT, Iliyasu Z, Saliyu AS, Adamu H, Sabo U, Garcia JP, Abdullahi SU, Mande A, Xian H, Yakasai HM, Schootman M, Ingles DJ, Patel AA, Yakasai A, Curry Johnson S, Wudil UJ, DeBaun MR, Trevathan E; BRIDGE Advisory Panel. *Bridging the childhood epilepsy treatment gap in northern Nigeria (BRIDGE): Rationale and design of pre-clinical trial studies. Contemp Clin Trials Commun. 2019 Apr 16;15:100362. doi: 10.1016/j.conctc.2019.100362. eCollection 2019 Sep.*
19. Samia P, Hassell J, Hudson JA, Murithi MK, Kariuki SM, Newton CR, Wilmshurst JM. *Epilepsy diagnosis and management of children in Kenya: review of current literature. Res Rep Trop Med. 2019 Jun 28;10:91-102*
20. Ackermann S, Le Roux S, Wilmshurst JM. *Epidemiology of children with epilepsy at a tertiary referral centre in South Africa. Seizure. 2019 Aug;70:82-89.*
21. Burman RJ, Selfe JS, Lee JH, van den Berg M, Calin A, Codadu NK, Wright R, Newey SE, Parrish RR, Katz AA, Wilmshurst JM, Akerman CJ, Trevelyan AJ, Raimondo JV. *Excitatory GABAergic signalling is associated with benzodiazepine resistance in status epilepticus. Brain. 2019 Sep 23. pii: awz283. doi: 10.1093/brain/awz283. [Epub ahead of print]*
22. Wilmshurst JM. *Treatment of status epilepticus in children: where in the world are we now? Dev Med Child Neurol. 2020 Feb;62(2):152.*
23. R van Rensburg, M Blockman, K Moodley, J M Wilmshurst. *Medical cannabis: What practitioners need to know. S Afr Med J 2020;110(3):192-196.*
24. French JA, Brodie MJ, Caraballo R, Devinsky O, Ding D, Jehi L, Jette N, Kanner A, Modi AC, Newton CR, Patel AA, Pennell PB, Perucca E, Sander JW, Scheffer IE, Singh G, Williams E, Wilmshurst J, Cross JH. *Keeping people with epilepsy safe during the COVID-19 pandemic. Neurology. 2020 Jun 9;94(23):1032-1037.*

International Child Neurology Association collaborations

- Reports on capacity in Africa for child neurology, epilepsy, cerebral palsy and autism – published in a series of articles in JCN
- Similar the child neurology African network compiled a special issue for Seminars in Pediatric Neurology in 2014

Related publications in last 5 years

ICNA capacity in Africa series

1. Donald, KA; Samia, P; Kakooza, A.; Babakir, H.; Bearden, D.; Wammanda, R.; Mallewa, M.; Majnemer, A.; Fehlings, D.; Shevell, M.; Chugani, H.; Wilmshurst, J. *Cerebral Palsy in Africa: Where are we? Journal of Child Neurology. 2015 Jul;30(8):963-71.*
2. Ruparella K, Abubakar A, Badoe E, Bakare M, Visser K, Chugani DC, Chugani HT, Donald KA, Wilmshurst JM, Shih A, Skuse D, Newton CR. *Autism Spectrum Disorders in Africa: Current Challenges in Identification, Assessment, and Treatment: A Report on the International Child Neurology Association Meeting on ASD in Africa, Ghana, April 3-5, 2014. J Child Neurol. 2016 Jul;31(8):1018-26*
3. Wilmshurst J. *Paediatric neurology in Africa: filling the gap. Dev Med Child Neurol. 2017 Feb;59(2):113.*

Other key publications (APFP related)

1. Wilmshurst JM, Morrow B, du Preez A, Githanga D, Kennedy N, Zar HJ. *The African Pediatric Fellowship Program: Training in Africa for Africans. Pediatrics. 2016 Jan;137(1):1-12.*
2. Wilmshurst J. *Protecting the developing brain: empowering child neurologists to become more preventative. Dev Med Child Neurol. 2018 Nov;60(11):1067.*
3. Daniels AD, Buys H, Dunkley R, Wilmshurst JM. *The African Hospitalist Fellowship. S Afr Med J. 2017 Oct 31;107(11):945-947.*

D. Additional Information: Research Support and/or Scholastic Performance

Research Funding over last 5 years

01/01/16-12/01/21 03707, NRF (National Research Foundation) Role: PI – rated B3

07/17/15-09/30/18 NHLS Research Trust Application, Role: co-PI (with Prof R Ramesar)

Delineation of the Genetic Causes and Expression of Epileptic Encephalopathies in South African children.

05/01/16-05/01/18 395476, MRC (Medical research council) Role: PI

Delineation of the Genetic Causes and expression of complex epilepsies in South African children.

10/01/13-10/01/17 CRAD001MIC01 Novartis Role: PI

An international disease registry collecting data on manifestations, interventions and outcome in patients with Tuberous sclerosis complex – TOSCA. National PI for the collection of data on children in South Africa.

01/06/2019-31/12/2023 Establishment of an International Centre for Genomic Medicine in Neuromuscular Diseases (ICGNMD) Role UCT co-investigator and PI for PhD student

Multicentre MRC grant with University College London, UK.

Journal Editorial Board:

- Board of Directors of the Journal of Child Neurology (2010-present)
- Editorial Board e-journal through ICNApedia - Journal of the International Child Neurology Association (JICNA) (2012-present)
- Editorial board for Seizure: the European Journal of Epilepsy (2011-present)
- Editorial board for Epileptic Disorders (2013-present)
- Editorial board for Developmental Medicine and Child Neurology (2014-2019)
- Assistant Editor for Epilepsia. (2012-present)
- Chief Editor for Paediatric Neurology sub-section of Frontiers in Neurology (2018-present)
- Associate Editor for Developmental Medicine and Child Neurology (2019-present)