

CURRICULUM VITAE

Samuel Frank Berkovic AC, MD, FAA, FRACP, FAHMS, FRS



Current Positions

Laureate Professor, Department of Medicine, University of Melbourne,

Director, Epilepsy Research Centre, University of Melbourne

Biography

I am a physician-scientist and adult epileptologist in Melbourne, Australia. I have spent all of my career in Melbourne, except for a 3 year fellowship at the Montreal Neurological Institute. I am director of the Epilepsy Research Centre at University of Melbourne and head a large research program which integrates epilepsy genetics, high level imaging and neurobiology with parallel studies in humans and animals. My research focuses on

understanding the basic neurobiology of human epilepsies so that insights may be used for diagnosis and treatment of patients. I have been involved in the discovery of many of the known epilepsy genes. I have been heavily involved in the Australian Chapter of the ILAE, including being President (2000-03). I have also worked extensively on numerous ILAE Commissions and Task Forces, especially those on Classification and on Genetics. I was Chair of the Scientific Committee of the 1995 Sydney International Epilepsy Congress, which set a new direction and benchmark for international Epilepsy congresses. I founded and chair the ILAE Consortium on Complex Epilepsies.

Awards and Honours

- 1995: Epilepsy Research Recognition Award of the American Epilepsy Society
- 1998: Lennox Lecture, American Epilepsy Society
- 2001: Novartis Prize for Epilepsy Research
- 2005: Member of the Order of Australia
- 2005: Fellow of the Australian Academy of Science.
- 2005: Zulch prize for Neuroscience, Max Planck Society, Germany
- 2007: Fellow of the Royal Society (London)
- 2014: Companion of the Order of Australia
- 2014: Prime Minister's Prize for Science (shared with Prof Ingrid Scheffer)
- 2017: T.S. Srinivasan Endowment Prize and Oration, Chennai, India
- 2017: Member, National Academy of Medicine (USA)

ILAE Roles

- 1990-1993 Member, Commission on Pediatric Epileptology
- 1991-94 Secretary, Epilepsy Society of Australia.
- 1994-95 Chair, Scientific Committee for 21st International Epilepsy Congress (Sydney)
- 1994-97 Chair, Commission on Neuroimaging
- 1994-97 Member, Commission on Neurosurgery
- 1994-97 Member, Commission on Genetics, Pregnancy and the Child
- 1994-97 Member, Commission on Long Range Planning
- 1997-01 Member, Commission on Diagnostic Strategies
- 1997-01 Member, Commission on Search for Epilepsy Genes
- 2000-03 President, Epilepsy Society of Australia
- 2000-05 Member, Task force on Classification and Terminology
- 2007-11 Member, Commission on Classification and Terminology
- 2009-13 Chair, Commission on Genetics

2012- Chair, Consortium on Complex Epilepsies Task Force
 2017- Member, Genetic Literacy Task Force
 2017- Member, Task Force on Sequencing Data Sharing

Academic Record and Relevant Papers

> 650 peer-reviewed papers. H index 132 (Google Scholar); 16 papers cited >500 times (Google Scholar)

ILAE Commissions/Task Forces

Myers KA, Scheffer IE, **Berkovic SF** on behalf of the ILAE Genetics Commission. Genetic Literacy Series: Genetic Epilepsy with Febrile Seizures Plus. *Epileptic Disord* 2018; 20: 232-238.

Mullen SA, **Berkovic SF**, ILAE Genetics Commission. Genetic generalized epilepsies. *Epilepsia*. 2018; 59:1148-1153.

Scheffer IE, **Berkovic SF**, Capovilla G, Connolly MB, French J, Guilhoto L, Hirsch E, Jain S, Mathern GW, Moshé SL, Nordli DR, Perucca E, Tomson T, Wiebe S, Zhang YH, Zuberi SM. ILAE classification of the epilepsies: Position paper of the ILAE Commission for Classification and Terminology. *Epilepsia* 2017; 58: 512-521.

Helbig I, Heinzen EL, Mefford HC; ILAE Genetics Commission (includes **Berkovic SF**). Primer Part 1-The building blocks of epilepsy genetics. *Epilepsia*. 2016; 57: 861-8.

Berg AT, **Berkovic SF**, Brodie, MJ et al. Revised terminology and concepts for organization of seizures and epilepsies: Report of the ILAE Commission on Classification and Terminology, 2005-2009. *Epilepsia* 2010; 51: 676–685.

Commission on Diagnostic Strategies (ILAE Commission report, **Berkovic SF**, member). Recommendations for functional neuroimaging of persons with epilepsy. *Epilepsia* 2000; 41: 1350-1356.

Commission on Neuroimaging of the International League Against Epilepsy (ILAE Commission report, **Berkovic SF**, chairman). Guidelines for neuroimaging evaluation of patients with uncontrolled epilepsy considered for surgery. *Epilepsia* 1998; 39: 1375-1376.

Commission on Neuroimaging of the International League Against Epilepsy (ILAE Commission report, **Berkovic SF**, chairman). Recommendations for neuroimaging of patients with epilepsy. *Epilepsia* 1997; 38: 1255-1256.

Leadership of Major International Collaborations

Epi4K Consortium (project led by **Berkovic SF**). Quantitative analysis of phenotypic elements augments traditional electro-clinical classification of common familial epilepsies. *Epilepsia* 2019; 60: 2194-2203.

Epi25 Collaborative (**Berkovic SF**, co-corresponding author). Ultra-rare genetic variation in the epilepsies: a whole-exome sequencing study of 17,606 individuals. *Am J Hum Genet* 2019; 105: 267-82.

Ellis CA, Churilov L, Epstein MP, Xie SX, Bellows ST, Ottman R, **Berkovic SF***, Epi4K Consortium. Epilepsy in Families: Age at onset is a familial trait, independent of syndrome. *Ann Neurol* 2019; 86: 91-98. (*corresponding author)

The Epilepsy Genetics Initiative (includes **Berkovic SF**): Systematic reanalysis of diagnostic exomes increases yield. *Epilepsia* 2019; 60: 797-806.

International League Against Epilepsy Consortium on Complex Epilepsies (**Berkovic SF**, Consortium Chair). Genome-wide mega-analysis identifies 16 loci and highlights diverse biological mechanisms in the common epilepsies. *Nat Commun*. 2018; 9: 5269. doi: 10.1038/s41467-018-07524-z.

The Epi4K Consortium. Phenotypic Analysis of 303 Multiplex Families with Common Epilepsies (project led by **Berkovic SF**). *Brain* 2017; 140: 2144-2156.

Epi4K Consortium, Epilepsy Phenome/Genome Project (includes **Berkovic SF**). Ultra-rare genetic variation in common epilepsies: a case-control sequencing study. *Lancet Neurol* 2017; 16: 135–43

EpiPM Consortium (includes **Berkovic SF**). A road map for precision medicine in the epilepsies. *Lancet Neurology* 2015; 14: 1219–28.

International League Against Epilepsy Consortium on Complex Epilepsies (**Berkovic SF**, Chair). Genetic determinants of common epilepsies: a meta-analysis of genome-wide association studies. *Lancet Neurology* 2014; 13: 893-903.

Epi4K Consortium (includes **Berkovic SF**). De novo mutations in epileptic encephalopathies. *Nature* 2013; 501: 217-21.

The Epi4K Consortium (includes **Berkovic SF**). Epi4K: Gene discovery in 4,000 genomes. *Epilepsia* 2012; 53: 1457-67.

International Relations

Numerous international collaborations throughout Europe, North America and Asia. including chairing the International League Against Epilepsy Consortium on Complex Epilepsies, chairing the Strategy Committee of Epi25 which is sequencing 25,000 exomes from patients with epilepsy at the Broad Institute.

Publications

Over 600 peer-reviewed Journal articles largely related to epilepsy and genetics.

ACADEMIC INDICATORS AT A GLANCE

Career Citation Record (Web of Science)

Total number of citations: > 37,000

Papers cited more than **500** times: 7

Papers cited **100** - <**500** times: 96

h-index 102 (Web of Science August 2018)