

A Report from the Diagnostic Methods Commission

Fernando Cendes, Chair

The work of the Diagnostic Methods Commission involved several Task Forces during the period of 2009-2013. For the list of members, please see <http://community.ilae-epilepsy.org/diagnosticmethods/MEMBERS>.



Fernando Cendes

The focus of the Neuropathology Sub-commission was on a new proposal for the classification of Focal Cortical Dysplasias (FCDs) and Hippocampal Sclerosis (HS).

The Task Force on FCD published "The Clinicopathologic Spectrum of Focal Cortical Dysplasias: a Consensus Classification Proposed by an ad hoc Task Force of the ILAE Diagnostic Methods Commission" (Blümcke et al, *Epilepsia* 2011;52:158-74). The Task Force on HS just finished a Consensus Classification of HS and the manuscript is in the process of submission to *Epilepsia* after ILAE approval.

The Neurophysiology Sub-commission met regularly at Regional and International Congresses to strategize and follow up various initiatives. One of the primary goals was to integrate efforts with other Task Forces and Commissions to achieve a broader impact. Several of the initiatives have made significant progress and have plans to continue strategic efforts in the next four years. A document with recommendations developed jointly with the Pediatric Epilepsy Surgery Task Force of the ILAE ("Diagnostic Test Utilization in Evaluation for Resective Epilepsy Surgery in

Children") is being submitted to the ILAE Executive Committee for review and a symposium on this topic has been organized at the ILAE meeting in Montreal 2013.

The three main goals of the Neuroimaging Sub-commission and Task Force were to:

1. Formulate "evidence-based" guidelines on "role of imaging in Pediatric Surgery."
2. Evaluate the "role of advanced imaging methods in Epilepsy Surgery."
3. Promote global education / training in neuroimaging for neurologists and radiologists.

Guidelines for imaging infants and children with recent-onset epilepsy were published in *Epilepsia* in 2009 (50:2147-53), and a commentary on diagnostic testing study guidelines and practice parameters in *Epilepsia* (2011 52:1750-6). During meetings in Boston (AES 2009) and Rome (ILAE 2011), they prepared for a three-day workshop for London from 27-29 September 2012, which comprehensively assessed the clinical role and use of EEG-fMRI, cognitive fMRI for language and memory, as well as the added value of PET and SPECT, and post-processing of MRI. This workshop forms the basis of a "position paper" of expert opinions on the clinical use of these advanced imaging methods, soon to be submitted to the Executive Committee of the ILAE for publication in *Epilepsia*. A long-distance neuroimaging teaching program was formally accepted by the ILAE. Members of the Imaging Task Force participated in the annual web Neuroimaging courses offered by VIREPA, which included students from different parts of the world. Some of the students were supported by scholarships offered by ILAE.

The Neuropsychology Task Force organized a special international workshop entitled "*Neuropsychology in the*

Care of People with Epilepsy." The meeting was held in Toronto, Canada, 3-6 November 2010 and was organized under the auspices of the journal *Epileptic Disorders*. Members from our Neuropsychology Task Force were represented on the Organizing and Planning Committees, served as speakers and discussants, and additionally served as co-editors of the text that emanated from the meeting. Fifty-two specialists attended the session from thirteen countries representing expertise in adult and pediatric neuropsychology, psychiatry, neurology, neuroimaging, cognitive neurosciences, electrophysiology, and pharmacology.

Projects for next period (2013-2017)

The Task Forces of the ILAE Commission on Diagnostic Methods would like to continue their successful work and complete their specific aims and to continue to develop better tools and protocols for diagnostic methods in epilepsy care. Commission members would also like to develop mechanisms to assess cost-effectiveness and accuracy of pre-surgical evaluation protocols, including neuroimaging, neurophysiology and neuropsychology procedures.

In addition to the dissemination of the ILAE consensus classification systems for FCD and HS at national and international scientific meetings and the further promotion of collaboration with the ILAE Neuroimaging Task Force, a major task for the up coming period is to improve the classification and the definition of diagnostic guidelines for tumors associated with the chronic epilepsies. These guidelines should then be referenced in the up coming revision of the WHO classification system for brain tumors to achieve worldwide recognition and dissemination.