



Editorial

Seventy years of our journal



The grounds of our journal were laid on the occasion of the “founding meeting” of EEG researchers held in London, UK on July 14–16, 1947. Professor Herbert Jasper was appointed Editor and an Editorial Board was chosen to represent as many countries as possible. The official name of the new journal was “*Electroencephalography and Clinical Neurophysiology*”, or abbreviated: “*The EEG Journal*”. This reflected the dominance of EEG in the early days of the Federation (now called the International Federation of Clinical Neurophysiology, IFCN), which was founded during the 2nd International Congress in Paris, France on September 1–5, 1949. The liberal advice of W.T. Liberson of Hartford, USA during the 1947 founding meeting that the international journal “...*should not be concerned exclusively with electroencephalography, but be devoted to all the problems of experimental and clinical neurophysiology. ...many of us do not commit ourselves to the problems of the electrical activity of the brain alone, but carry on research in the fields of electromyography, electrodermography and electrodiagnosis of peripheral nervous diseases*” was largely ignored. Volume 1, Issues 1–4 of *Electroencephalography and Clinical Neurophysiology* appeared in 1949. This first volume contained 529 pages. Predominance of EEG topics in the first volume is obvious from its table of contents:

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A closer look to the papers published in this first volume demonstrates, however, that *Electroencephalography and Clinical Neurophysiology* was much more multifaceted than just EEG research. It contains technical / methodological articles that are still forming areas of research today, such as streaming of electrophysiological data (see article by Breakell et al., p. 243–244), modeling of electrical fields in the individual brain induced by electrical brain stimulation (see article by Lorimer et al., p. 343–348), or automated analysis of EEG data (see article by Hoeffler et al., p. 357–363). This illustrates very nicely the longevity of fundamental research topics in clinical neurophysiology and their relevance throughout seven decades.

Several of the papers published in the first volume became milestone papers in our field. For instance, the paper by Moruzzi and Magoun (p. 455–473) has revealed the fundamental role of the brainstem reticular formation on arousal reactions of the brain as monitored by changes in the EEG. The paper has been cited 2181 times (Scopus) until now, a citation classic.

Many of the authors of the first volume took important roles in the later history of the Federation. For example, Herbert Jasper was the founding editor of *The EEG Journal* (1949–1961), and the first president of the federation (1949–1953), William Grey Walter was the organizer of the founding EEG meeting in (1947), the European Editor of the journal (until 1957) and the second president (1953–1957), Henri Gastaut was the third president (1957–1961), Mary A.B. Brazier was the fourth president (1961–1965) and Editor-in-Chief (1973–1984), Cosimo Ajmone-Marsan was the sixth president (1969–1973) and American Editor (1960–1969).

Another interesting observation is that several papers were published in French. It was only decided later, on the occasion of the International Congress in Brussels, Belgium in 1957 that all papers should be in English if possible.

Finally, it is absolutely worth reading the Editorial by W. Grey Walter: Coming to terms with brain waves (p. 474), in which he puts a strong stance on using clear nomenclature in clinical neurophysiology. He quoted Lewis Carol (*Through the Looking Glass*): “When I use a word“ Humpty Dumpty said in rather a scornful tone “it means just what I choose it to mean – neither more nor less“. “The question is“ said Alice “whether you can make words mean so many different things“. “The question is“ said Humpty Dumpty “which is to be master – that’s all“. And he concluded: “If we are not to be branded as Sorcerers, Vampires or Shamanists, we must decide which is to be master and try to make it possible to say just what we mean“. This is still also very true now, and its importance will be reflected in a glossary of terms in clinical neurophysiology, endorsed by the American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) and the International Federation of Clinical Neurophysiology (IFCN) that will be published in *Muscle & Nerve* (the organ of the AANEM) and in *Clinical Neurophysiology* in 2020.

The development of our journal over the decades is very nicely summarized in two accompanying *Editorials* by Professor Carlo Alberto Tassinari from the perspective of an epileptologist and EEG researcher, and by Professor Jun Kimura (president of the federation 1990–1993) from the perspective of an EMG researcher. Both have been born in the 30ties and have witnessed the maturation of clinical neurophysiology from the early to the present days. The steadily increasing importance of other techniques than EEG led to the addition of two sections to the journal: “*Electroencephalography and Clinical Neurophysiology/ Evoked Potentials Section*” in 1984, and “*Electroencephalography and Clinical Neurophysiology/ Electromyography and Motor Control*” in 1995. Finally, this was all embraced under the new and still current name of the journal in 1999: “*Clinical Neurophysiology*”. In 2016, the IFCN launched a second journal “*Clinical Neurophysiology Practice*”. This is an open-access journal with a special focus on educational and practical studies while *Clinical Neurophysiology* aims now even more deliberately at publishing highest-quality research articles.

Our journal has now a wide scope, including all aspects of clinical neurophysiology in research: “*Clinical Neurophysiology is dedicated to publishing scholarly reports on the pathophysiology underlying diseases of the peripheral and central nervous system of humans. Reports on clinical trials that use neurophysiological measures as endpoints are encouraged, as are manuscripts on integrated neuroimaging of peripheral and central nervous function including, but not limited to, functional MRI, brain mapping, MEG, EEG, PET, ultrasound, and other neuroimaging modalities. Studies on normal human neurophysiology are welcome, if they are relevant to disease or clinical applications. . . Clinical Neurophysiology covers epilepsy, developmental clinical neurophysiology, psychophysiology and psychopathology, motor control and movement disorders, somatosensory disorders including pain, motor neuron diseases, neuromuscular diseases, neuropathies, sleep and disorders of consciousness, auditory and vestibular disorders, aging, Alzheimer’s disease, other dementias, other psychiatric disorders, autonomic disorders, neural plasticity and recovery, intraoperative and ICU monitoring, and therapeutic clinical neurophysiology including non-invasive and invasive brain stimulation.*”

Currently, we are discussing several issues related to modern forms of publishing such as transforming *Clinical Neurophysiology* into an e-only journal, or moving from a subscription-based hybrid model to a full gold open access publication model, where all publications would become freely and immediately accessible. If set into action, these transformations will significantly affect authors the way they are publishing, readers the way they can access the content of the journal, and the publisher (Elsevier) and the federation with respect to their relations. However, no matter what will happen, I am confident that our journal will remain the premier

journal in its field as it has always been ever since its foundation 70 years ago.

This is a very good reason to celebrate. As the current Editor-in-Chief, I would like to thank all the people who have contributed to the ongoing success of our journal, in particular all the ad hoc reviewers, members of the Editorial Board, Associate Editors and the Editorial Officers and Journal Managers at Elsevier. As a particular contribution in celebrating the 70th anniversary, Elsevier has agreed to switch Volume 1, Issues 1–4 of our journal to open access. All articles of the first volume can be reached through:

<https://www.sciencedirect.com/journal/electroencephalography-and-clinical-neurophysiology/vol/1/issue/1>

Let me close this text by quoting Herbert H. Jasper, the founding Editor. He thought that scientific investigation and brain research “...might be an excellent channel for the promotion of better international relations because so many of these problems are based on malignant mental attitudes that might respond to scientific studies of brain function as a detriment of social behavior. I feel strongly that

modern neuroscience with all its advances during recent years should be used to apply knowledge and techniques to the understanding and prevention of such malignant mental attitudes that form the basis for so much conflict.” While this might be an overoptimistic view, it articulates a self-conception of our journal: a globally interacting family of researchers and clinicians devoted to advancing our knowledge of the functions and dysfunctions of the human nervous system, one of the most intricate unresolved enigmas in science.

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