From Brain Topography to Brain Imaging

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As the new Editors-in-Chief, it is our distinct pleasure to formally announce the re-launch of *Brain Topography*, marking its 20th anniversary.

Brain Topography was founded in 1988 by Dr. Peter Wong as one of the original neuroimaging journals. Multi-channel EEG recording systems had just become affordable, and topographic analysis techniques had started to enter clinical applications. Topographic EEG and evoked potential databases became available and efforts to use them in clinical diagnosis were at their height. The International Society of Brain Electromagnetic Topography was founded in those years, and the Journal became an important mouthpiece of the Society and of the researchers who were at the forefront of this new brain imaging technique. As Editor-in-Chief, Dr. Wong competently led *Brain Topography* during this particularly successful time in the early 1990s. As a consequence, many seminal and influential publications appeared in *Brain Topography* during this period. We are extremely grateful to Dr. Wong and thank him for his constant dedication to the success of *Brain Topography*.

As *Brain Topography*'s new Editors-in-Chief, our mission is to further enhance its standing as a leading neuroscience and neuroimaging journal. While *Brain Topography* is a mature journal with a stable publication rate and citation record, we are also well aware that now is a critical time for broadening *Brain Topography* to keep up with the growth of research in cognitive and clinical neuroimaging and neuroscience, as well as with methodological discoveries. To this end, we have substantially broadened the aims and scope of the Journal to encourage the submission of manuscripts from clinical and experimental research on functional neurophysiology that make use of the full range of imaging techniques such as EEG, MEG, fMRI, PET, TMS,

diffusion imaging, spectroscopy, intracranial recordings, lesion studies, and related methods.

Alongside of this opening to a host of neuroimaging techniques, a key focus of the Journal remains the temporal dynamics of brain (dys)functions. This is evidenced by *Brain Topography*'s new subtitle: "A Journal of Cerebral Function and Dynamics." It is clear that neuropsychological investigations and hemodynamic imaging methods provide invaluable details concerning the localization of brain functions. Nonetheless and despite the now prolific use of methods proving functional localization, attention is increasingly being directed to the questions of *when* different brain areas become active and in which processing step(s) each of these areas is involved. Here, researchers seek to differentiate between parallel and sequential organization, feed-forward versus feedback processes, and how information is "bound" together. One of our objectives is to establish *Brain Topography* as a forum for demonstrating the capabilities of combining spatial and temporal neuroimaging techniques with high-quality methodological, experimental, and clinical applications.

To help achieve these objectives we are honored to have an Editorial Board comprised of leading international researchers (<http://www.springer.com/biomed/neuroscience/journal/10548?detailsPage=editorialBoard>). We are particularly grateful to our Associate Editors: Anna Nobre, Bin He, and Bruce Turetsky, who will supervise and advise us on the three main subsections of *Brain Topography* (cognitive neuroscience, methodological development, and clinical research). Together with the Editorial Board we have compiled strategies that we are confident the scientific community will appreciate and acknowledge through the submission of high-quality articles. One strategy involves the publication of special issues focusing on timely topics in functional brain

imaging. Prospective guest editors are encouraged to contact us directly. In addition to special issues, we will also seek to publish papers in regular issues on “featured topics.” The object here will be to investigate a single topic from an array of methodological, functional, and clinical perspectives. We will also publish review articles on a regular basis and we will invite editorial-like discussions on controversial topics. And last, but certainly not least, we are fully aware of the importance of rapid publication. We will take every effort to ensure timely reviews of manuscripts as well as the expedited online publication of accepted manuscripts.

The inaugural issue marking the re-launch of *Brain Topography* is a special issue entitled “Brain dynamics of emotional processing: empirical contributions and recent methodological developments.” This peer-reviewed special issue grows out of a 2-day workshop on emotion and affective processes held at the University of Geneva Swiss Center for Affective Sciences in November 2006. The meeting was organized by Dr. Gilles Pourtois and Dr. Didier Grandjean, who figure as the issue’s Guest Editors. Here is how they summarize this issue in their own words:

The goal of this special issue is to provide a clear and thorough presentation of the main contributions to this mini-conference. All the contributions share a similar objective, which is to clarify the specificity of the brain dynamics underlying the processing of emotion-laden stimuli, in particular when this specificity is revealed by modern neuroscientific tools available today in human electrophysiology. All these contributions have in common the use of either scalp EEG or MEG to track the spatio-temporal dynamics of emotional or affective

effects in the human brain. This special issue is organized along two main sections. The first part presents a series of new empirical contributions all addressing the time-course of emotional processing, and using a wide range of emotionally evocative stimuli (including visual scenes, faces, or words, as well as auditory stimuli) and standard experimental tasks in Affective Neurosciences. The second part presents methodologically oriented aspects of EEG or MEG, and highlights how advanced data analyses (including topographic, time-frequency decomposition, and single-trial analyses) may be useful to shed new light on the time-course of emotional processing. The different contributors to this special issue present important new neuroscientific data that will be of great interest to a wide audience of researchers in the neuroscience of emotion, including psychologists, neurologists, psychophysicists, and computational modelers.

We are proud to present this special issue as the first under our editorship and we thank the organizers for having selected *Brain Topography*. We are confident that this will be but the first of many special issues of similarly high quality. In closing, we would call your attention to the Journal’s online submission and tracking system (www.editorialmanager.com/btop) and call for your support in ensuring the continued success of *Brain Topography* as a platform for discoveries in human brain functioning.

Christoph M. Michel and Micah M. Murray
Editors-in-Chief