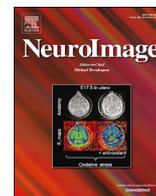


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## Editorial overview: The 25th Anniversary of the Human Brain Mapping Meeting

In the late 1980's, neuroimagers were a ragged band of multi-disciplinary researchers with no real home. In search of their scientific interests, they attended meetings covering radiology, nuclear medicine, neurophysiology, engineering, image processing and computer science. Starting in 1992, a small group of internationally well-known neuroimagers had attended a series of 8 annual BrainMap Workshops in San Antonio devoted to promoting the development of standard space as an analysis and reporting standard, with discussions also related to development of open-access neuroimaging archives. These meetings were organized by Peter Fox [USA] and funded by National Institutes of Health [NIH, USA] R13 awards. After one such meeting in 1994, the crying need for a home of their own was the central issue discussed around a table of 25 scientists who became the driving force behind what would become OHBM. At the meeting, Dr. Bernard Mazoyer [France] volunteered to host a first launch of such an international conference.

Mazoyer and colleagues Per Roland [Sweden] and Rudiger Seitz [Germany] hosted the meeting in Paris, France in June 1995. Incredibly 820 attendees came to the first meeting – greatly exceeding the organizers' expectations! The rest is history.

The overwhelming success of the Paris meeting called for a second meeting in Boston, USA to be held in 1996 and organized by Jack Belliveau and Bruce Rosen. The which was an even larger success in attendees prompting calls for the creation of a new Society for neuroimagers. Opinion was divided on this topic, with some influential senior figures in the movement arguing strongly that this would be unnecessary and compete with established Societies. Quite a contentious debate ensued. In retrospect, it is hard to believe that such an esoteric and minor issue generated such strong sentiment. Indeed, the following year, at the 2nd Human Brain Mapping conference in Boston, the issue was hotly debated at a 'Town Hall' meeting of the 1000–1500 attendees. Alan Evans [Canada] as a moderator, actually donned a combat helmet for the occasion! The meeting's outcome was that an 'Organization' would be established to run annual meetings, but it would not be deemed a 'Society'. OHBM officially became an Organization in 1997 with ratified by-laws and the potential to elect office bearers [OHBM Council, OHBM Program Committee]. Indeed, many of the first OHBM Council Chairs were scientists who had participated in the original BrainMap Workshops. Over the past 25 years, the OHBM has taken on multiple new responsibilities, effectively functioning as a Society while retaining its original name. Therefore, it finally became a Society in 2018 – ratified by the OHBM membership at the annual meeting in Singapore – allowing the official sanctioning of year-round activities of 'Chapters' in different international communities.

In the mid-1990s, the neuroimaging zeitgeist was such that Positron Emission Tomography [PET] was an established neuroimaging modality,

with activation studies of cerebral blood flow and glucose metabolism being performed in both humans and animals. The requirement of a nearby cyclotron meant that PET was largely confined to the largest institutions with clinical and/or research imaging centers. The 1995 Paris neuroimaging meeting was actually a satellite meeting for the Brain PET meeting in Cologne. At the time, only a few groups were performing functional magnetic resonance imaging [fMRI] studies. Analysis software was vestigial – the first generation of Statistical Parametric Mapping [SPM] software for PET data analysis was available – with the first methods papers being published by Karl Friston in 1990/1991 [see <https://www.fil.ion.ucl.ac.uk/spm/doc/history.html>]. Other software packages for fMRI were being developed e.g. Analysis of Functional Images [AFNI] by Bob Cox at the Medical College of Wisconsin began in 1994 [see [https://afni.nimh.nih.gov/afni\\_history](https://afni.nimh.nih.gov/afni_history)], and SPM for fMRI came about from further developments in data analysis from Friston's group in 1995. Magnetoencephalography [MEG] and electroencephalography [EEG] were already established neurophysiological methods in the mid-1990s, with their own specialized smaller scientific meetings. High-density MEG/EEG recordings were still not that common. Most of the book of 404 abstracts for the Paris meeting was devoted to brain activation studies, with 27% devoted to fMRI methods, 6% to the nature of the BOLD response, and 9% to MEG-EEG.

The OHBM has been a hub for the neuroimaging community, gradually incorporating additional MRI-based methods such as quantification of grey matter and white matter, formulation of anatomical atlases. Efforts to encourage the involvement of more basic and clinical researchers performing MEG and EEG studies are also being made. Right from the outset, OHBM has recognized the importance of having an educational program [initially organized by Peter Bandettini from 1998 to 2000], with weekend education sessions being added as early as 1998, and morning education sessions commencing in 2000 for OHBM in San Antonio. In 2000, Peter Fox obtained a 5-year NIH R13 grant whose \$25,000/year proceeds were devoted to 25 travel awards for OHBM trainees, based on abstracts with the highest scored peer-reviews. This grant was extremely helpful in kickstarting engagement from new scientists just starting out in functional neuroimaging and launched the OHBM Trainee Travel Award Program. In 2005, Peter Fox succeeded in obtaining a renewal for this 5-year grant with an increased budget of \$50,000/year. After 10 years of NIH travel awards to the tune of \$750,000 and increasing attendances at OHBM meetings, OHBM had enough financial reserve to continue the travel award program and the NIH-grant was allowed to lapse. Additionally, the neuroimaging journals *NeuroImage* and *Human Brain Mapping* were spawned for this community. *NeuroImage* was an existing Elsevier journal that was transformed to be a forum for [mainly human] PET and fMRI studies by Editors Art Toga,

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Richard Frackowiak, and John Mazziotta [1995], whereas *Human Brain Mapping* was started de novo by Peter Fox for Wiley [1993]. Both *Human Brain Mapping* and *NeuroImage* were the source of OHBM abstract books for the first few years. Additional journals for neuroimaging and related disciplines have been added since those times e.g. *Brain Connectivity* [Christopher Pawela & Bharat Biswal], *Brain Structure and Function* [Laszlo Zaborszky & Karl Zilles] and *Network Neuroscience* [Olaf Sporns]. All of these senior scientists have been active in the OHBM community. Indeed, Editors for all of these journals continue to come largely from the OHBM community. In addition to journal-based activity, early efforts to standardize data formats and data sharing were occurring at the time. For example, in the early '90s, workshops for the International Consortium on Brain Mapping [beginning in 1992 and co-ordinated by John Mazziotta] and for the European Computerized Human Brain Database [beginning in 1994 and co-ordinated by Per Roland] were run in addition to the San Antonio BrainMap Workshops.

A set of awards recognize the achievements of OHBM Members. An award devoted to recognizing excellence in early career neuroimagers began as the Wiley Young Investigator Award [first awarded to Karl Friston in 1996]. In 2016, it became the OHBM *Early Career Investigator Award*. Other OHBM awards include the *Education in Neuroimaging Award* [first awarded to JB Poline in 2013], the *Replication Award* [first awarded to Wouter Boekel in 2017]. In 2014 OHBM awarded the *Glass Brain Award* to Karl Zilles – created to recognize the lifetime achievements of scientists in the field of human neuroimaging. From 2005, OHBM has also been very fortunate to have the Editors-in-Chief of the journals *Human Brain Mapping* and *NeuroImage* also announce their *Editor's Choice Award* for the best paper in their respective journals at the opening ceremony of each OHBM meeting.

OHBM is a Society that is known to be inclusive and to change with the times. Its Council and Scientific Program Committee have existed from the early years [1997]. In response to current issues, committees such as a Diversity & Gender Committee, a Communications Committee, and the OHBM Publishing Initiative Committee (TOPIC), among others, have been constituted. The Communication committee has its hands full improving the OHBM website - providing 'on demand' education program [2014] consisting of resources such as videoed lectures from previous meetings and educational materials, running a blog [2015], among other things. OHBM also is an inclusive Society as indicated by its Code of Conduct Statement [see <https://www.humanbrainmapping.org/i4a/pag>

[es/index.cfm?pageid=3912](https://www.humanbrainmapping.org/index.cfm?pageid=3912)]. Three special interest groups [SIGs] devoted to Students & Post-docs, Open Science and Brain-Art are also now part of OHBM. As OHBM has grown, a professional secretariat soon become necessary, which has helped to preserve institutional knowledge and to increase professionalism. Initially, in the early 2000s Lori Anderson and her team [from a US-based company called L&L] fulfilled that role. Nowadays these greatly expanded functions are fulfilled by the OHBM Executive Office, based in Minneapolis, USA.

Over the years the OHBM Annual Scientific Meeting has alternated between the European, Asian and North American continents, with occasional detours to places such as Australia. Attendee numbers have steadily grown over the years – first surpassing 3000 in 2005 when the meeting was held in Florence, Italy. Indeed, the 25th anniversary of scientific neuroimaging meeting in Rome, Italy promises to be a bumper year – with over 3700 abstract submissions and attendee numbers expected to be around 4000! This year's meeting will be an exciting one – not only for the new science being presented, but also for the nostalgic look back at the previous 25 years of meetings being prepared by members of OHBM's Scientific Advisory Board – individuals who have been part of the history of OHBM. We look forward to seeing you at OHBM in Rome on June 9-13 [see <https://www.humanbrainmapping.org/i4a/pages/index.cfm?pageID=3882&activateFull=true>]!

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