



# International Neuroethics Society

[www.neuroethicssociety.org](http://www.neuroethicssociety.org) — January, 2012

Steven Hyman, President • Turhan Canli • Martha Farah • Hank Greely • Barbara Sahakian • Julian Savulescu • Paul Root Wolpe  
*Executive Board*

## 2011 International Neuroethics Society Annual Meeting Recap

By Chelsea Ott, INS Administrator

The International Neuroethics Society hosted its Annual Meeting at the Carnegie Institution in Washington DC on November 10 and 11. We had 185 attendees representing 15 countries and 29 speakers who covered topics from national security to new neurotechnologies and beyond.

Please see our [website](#) or [facebook page](#) to view photos from the meeting (be sure to “tag” yourself in our facebook photo album). Soon we will be posting videos of the different panels on our website, so stay tuned!

On Thursday the Annual Meeting opened up with three unique break-out groups on Teaching Neuroethics, Careers, and Funding. Later that evening, INS joined the Society for Social Neuroscience (S4SN) in a joint reception and poster session. S4SN had 40 posters and INS had 51 posters presented. Twenty-five of the INS posters were selected for publication in *American Journal of Bioethics: Neuroscience*. Check out our [website](#) to see the list of abstracts that were featured at the meeting.

Attendees had many opportunities to network throughout the meeting. The joint poster session was held in conjunction with a reception and members of our eight working groups met for dinner with their group on Thursday night to discuss their specific interests.

Please see reviews of the meeting's panel discussions written by INS members in the following pages of the newsletter for a recap of the meeting's events.



Meeting attendees conversing during the poster session held with S4SN



We had a packed house at the lecture on Thursday night which was co-hosted by S4SN



The Teaching Neuroethics Break-out group featured Martha Farah, Bennet Foddy, Emily Bell, Jon Lepofsky, and Carmelo Santos



Chorost presented on the power of neurotechnology.

## **Review of Michael Chorost Technology and Humanity Session**

By David Sloan

How can progress in neurotechnology improve humanity's future? That was the question posed by writer and consultant Michael Chorost on Thursday afternoon. His talk, entitled "Technology and Humanity: a Neuroethics Perspective", sought a glimpse of the future of neurotechnology, and gave an optimistic appraisal of its ability to change humanity for the better.

Mr. Chorost first encountered the power of neurotechnology when he received bilateral cochlear implants after completely losing his hearing in 2001. He was astounded that computer code could actually control his hearing. It was, he said, his first "collision with computers". Since the day he regained his hearing, he has written prolifically about the effect of technology on himself and on

society. During his talk, he speculated on how technology, including neuroscience advances of all kinds, could not only improve means of communication, but create new styles or genres of communication that would help to further integrate and enhance society as a whole.

Though Mr. Chorost expressed ambivalence about the current power of neurotechnology to dramatically change society, he claimed that there were promising signs in the modern age that society and technology were progressing together, albeit gradually. He noted that violence had gone down worldwide in recent history, intelligence seemed to be increasing worldwide, and there are now some 2 billion internet users connected together worldwide. Referencing hierarchical concepts of societal progression by philosophers Ken Wilbur and Clare Graves, he suggested that a combination of wired technologies and future integrated neural technologies could, together, lift society as a whole to a more peaceful and intelligent level. He admitted that his framework for thinking about the effect of neurotechnology on society was still evolving, but he was hopeful that the future of neurotechnology will be as helpful to humanity as it was to his hearing.

## **Emerging Technologies Panel**

By Adrian Carter

Following a stimulating discussion at lunch on Friday, attendees settled in for three presentations on Neuroethics and Novel Treatments in Neuropsychiatry.

*Continued on Page 3...*



The Neuroethics and novel treatments in Psychiatry Panel is pictured above. Barbara Sahakian moderated the panel of Husseini Manji, Helen Mayberg, and Jorge Moll (left to right).

## Emerging Technology Panel

*...Continued from Page 2*

First up, Husseini Manji (Johnson and Johnson Pharmaceutical R&D) reviewed some of the most promising developments in the treatment of neuropsychiatric disease. As Manji pointed out, neuropsychiatric disorders account for a substantial proportion of the global burden of disease (15% of DALYS). Manji described research on novel treatments of Alzheimer's disease and depression, two of the leading causes of morbidity and mortality globally (e.g. immunotherapies to reduce amyloid burden and ketamine which has been shown to have an immediate improvement in some depressed individuals). He also described research aiming to develop predictive tests for Alzheimer's disease and schizophrenia to enable early intervention.

Next, we heard from the neurologist Helen Mayberg (Emory University) about her groundbreaking research on the use of deep brain stimulation to treat refractory depression. In a breakthrough, 50% of study participants achieved remission for the study period. Significantly, the improvement was immediate, compared to pharmacological treatments which often take weeks to have an effect. Professor Mayberg noted that one of the ethical challenges with this technology are the clinical trials because they require ongoing maintenance and significant intervention to withdraw from the study.

The final speaker in the session was Jorge Moll (D'Or Institute for Research and Education) who presented research on the use of fMRI feedback to enhance prosocial sentiments (e.g. guilt, pity and empathy). Imaging researchers have identified regions of the brain (e.g. frontopolar and ventromedial frontal regions) associated with prosocial behaviours in patients with brain lesions or frontal dementia. Moll described research



Criminal defense attorney Steve Greenberg talked about his experience introducing fMRI evidence into a case

in which fMRI feedback was found to increase prosocial feelings, such as closeness to family members, controversially suggesting that this technology could be used to enhance moral cognition more generally.

The talks provoked much discussion that continued well into the afternoon tea break.

## Neuroscience and the Law Panel

Hank Greely introduced and moderated the panel beginning with commentary from Steve Greenberg, the defense counsel who introduced fMRI evidence into a capital sentencing hearing in Illinois. Greenberg cited fMRI evidence to show that his client was born a psychopath and therefore should not receive the death penalty. (More information on this case is in *Nature* 464:340 2010).

Next was Houston Gordon, counsel for the defendant in *United States v. Semrau*. He tried unsuccessfully to introduce fMRI lie-detection evidence and talked about the real world issues involved in trying to introduce

*Continued on Page 5...*

## Neuroscience and National Security Panel

By Guillermo Palchik

The Neuroscience and National Security Panel was moderated by Fabrice Jotterand and included esteemed panelists Jonathan Moreno, William Casebeer and James Giordano. They addressed the ways in which military applications of neurotechnologies and neuropharmacological drugs provide ways to enable soldiers' performances.

Some of the topics they discussed were devices for the manipulation of brain regions associated with moral sensibility in order to change the moral profile of soldiers in combat situations; "aug-cog" (augmented cognition) targeted brain stimulation to enhance cognitive abilities ("cognitive tune-up"); and managing sleep deprivation while maintaining cognitive performance intact. While some of these approaches were defined to be more proximate than others, it was stressed that what is important is to discuss the potential for abuse and misuse early and often throughout the research and development process, as each and all of these techniques and technologies can generate practical and ethico-legal issues.

Along these lines, an issue discussed was the transition from military applications to public usage and their effects on national security. Of foremost concern was the tension between the desire for public transparency and the need to conceal sensitive information, as well as the requirement for a sustained ethic of responsible action.



William Casebeer gives his portion of the Neuroscience and National Security talk as fellow members Fabrice Jotterand, Jonathan Moreno and James Giordano look on.

## Get Involved! Suggest a session for the 2012 INS Annual Meeting

We are looking for your best session ideas for INS's 2012 Annual Meeting in New Orleans. This is your chance to submit topics designed to engage and challenge your colleagues. You can suggest entire panels and speakers you want to hear or that you feel would benefit the membership. You can suggest a topic or perhaps a new format - a discussion by a leader with the audience, a book or movie review, flash sessions of five minutes followed by audience discussion. We encourage proposals of all shapes and sizes. We're looking for cutting edge topics and speakers that members want to hear.

**What:** Session Proposals for 2012 INS Annual Meeting, no more than 200 words

**Where:** Submit to [kgra-ham@neuroethicsociety.org](mailto:kgra-ham@neuroethicsociety.org)

**When:** Deadline is February 1, 2012

Submit your proposal regardless of session type, length, or room set. Each submission will be reviewed by the Program Committee and may be modified to fit within the meeting format.

Click [here](#) for a look at the 2011 INS Annual Meeting lineup. Evaluations submitted after the 2011 Meeting indicated a desire for more interactive participation. This is your chance to make that a reality by helping to shape the program for the 2012 Annual Meeting -- submit your session ideas by Wednesday, February 1, 2012.

## 2012 INS Board Elections

As we begin the New Year, the International Neuroethics Society Nominating Committee is accepting names for consideration as board members. Suggestions should be made by January 15 to Karen Graham at [kgraham@neuroethicssociety.org](mailto:kgraham@neuroethicssociety.org).

The terms of five board members expire in February 2012. These are Turhan Canli, Pat Churchland, Martha Farah, Barbara Sahakian, and Laurie Zoloth. There are nine continuing board members. The terms of Hank Greely, Steve Hyman, Judy Illes, Julian Savulescu, and Paul Root Wolpe expire in February 2013; the terms of Husseini Manji, Helen Mayberg, Jorge Moll, and Jonathan Moreno expire in February 2014. Board members can be re-elected for additional terms.

The INS Nominating Committee will use the suggestions of the membership in organizing a list of potential board members to be presented to the executive committee. Those whose terms expire may be re-nominated. In 2010, the membership elected four members of the Nominating Committee and the Executive Committee selected three. All have two-year terms. The Committee comprises Hank Greely, chair, with Stephanie Bird, Mark Frankel, Alan Leshner, Richard Nakamura, Barbara Sahakian, and Julian Savulescu.

The duties and responsibilities of the Nominating Committee as outlined in the Governance Statement are "to suggest new members of the Board of Directors to replace those who have resigned, let their membership lapse, had their terms end, or have otherwise left the Board. They should recommend at least twice as many possible members as there are openings and should take into account the needs for balance in the member-

ship of the Board of Directors." Special emphasis is given to the importance of broadening the Society's geographical reach, of maintaining disciplinary and gender balances, and of injecting fresh energy into the Board. The committee is not asked to nominate anyone for a particular office. Board members serve a three-year term.

Please take a moment to consider suggesting someone to the INS Board. New Board members will be announced in the March 1 newsletter. **Remember to submit your suggestion to Karen Graham, [kgraham@neuroethicssociety.org](mailto:kgraham@neuroethicssociety.org) by January 15th!**

## Neuroscience and the Law Panel

*...Continued from Page 3*

this type of evidence in court. (See Science 328:1336 2010)

Russell Swerdlow concluded the panel. He is a neurologist who treated a teacher in the Virginia case of a man whose pedophilic tendencies appeared with a tumor in his brain, disappeared upon removal of the tumor, but reappeared when the tumor returned. (See Arch. Neuro. 60:437 2003)

The consensus from the panelists was that cases need to be examined on an individual basis. There were questions from audience members about the nature of free will and whether society is ready for technology to predict violent tendencies in people and perhaps separate them from society before they have even committed a crime. Lie-detection through imaging also drew concern and criticism from the audience. As these types of cases become more prevalent, courtrooms will certainly be asked for more and more complex decisions.

## Open INS Business Meeting Held

During the 2011 International Neuroethics Society Annual Meeting, an open business forum was held with President Steve Hyman presiding. It was announced that membership is now over 300, registrations at the annual meeting totaled 185 with 32 international participants from Italy, Spain, Japan, Sweden, Brazil, Australia, Belgium, Canada, Costa Rica, Germany, Israel, Switzerland, the Netherlands, and the United Kingdom.

Committee reports were given by Paul Wolpe, chair of the Program Committee; Martha Farah, chair of the Communications Committee; and Hank Greely, chair of the Nomination's Committee.

- Wolpe thanked the other members of the Program Committee for their diligent work in preparing for the meeting and suggested that work on the 2012 meeting would begin immediately.
- Farah announced that in the past year the INS initiated a Facebook page, joined the blog, "Neuroethics: Ethics and Neuroscience in the News," part of the Practical Ethics Blog with the Oxford Centre for Neuroethics; initiated a LinkedIn page; upgraded the look of the newsletter and ask for more members to contribute to it. She suggested that anyone who attends a conference, interview, or other event send a short report to be published under their by-line.
- Greely reviewed the governance structure of the Society – five board memberships expire in 2012 and five expire in 2013. The Nominating Committee is asking for suggestions to be submitted for new board members and reiterated that current members can be renominated. Nominating Committee members are Hank Greely, Julian Savulescu, Barbara Sahakian, Stephanie Bird, Mark Frankel, Alan Leshner,

Richard Nakamura. Suggestions for new board members should be submitted to Karen Graham, [kgraham@neuroethicssociety.org](mailto:kgraham@neuroethicssociety.org)

Emily Murphy, Student Representative to the Executive Board, asked that students contact her directly with any suggestions, comments, ideas, etc. Her email is [ermurphy@stanford.edu](mailto:ermurphy@stanford.edu).

It was announced that a Board meeting was scheduled for later that day and members were asked to voice any concerns or ideas to any of the 13 board members at the Annual Meeting or to Karen throughout the year.

## Join the Conversation

The International Neuroethics Society joined **Neuroethics: Ethics and Neuroscience in the News**, part of the *Practical Ethics Blog* with the Oxford Centre for Neuroethics.

Join in the conversation by following this [link](#). Details and a link are available on our website. Be sure to follow the Practical Ethics blog on twitter @ethicsintheneWS.



### Are you on LinkedIn?

The International Neuroethics Society is now on [LinkedIn](#)! We have started a members only group to expand your networking experience. Search "International Neuroethics Society" in the "Groups" search tab and you can request to join the group.

All posts are regulated by the INS Administrator to make sure content is relevant and appropriate.

## Employment and Educational Opportunities

Do you have a neuroethics-related job opening for staff or faculty at your institution? Is there an educational program you'd like to publicize? Reach your fellow INS members by posting these opportunities here! Please email Chelsea Ott with the information you want posted at [administrator@neuroethicssociety.org](mailto:administrator@neuroethicssociety.org)

## Graduate Student Opportunity at AJOB: Neuroscience

Graduate students from all disciplines are invited to submit proposals to our special "Graduate Student Issue" on ethical issues in neuroscience of the [American Journal of Bioethics Neuroscience](#).

This is a unique opportunity for students to have a peer-reviewed publication in the premier neuroethics journal and official journal of the International Neuroethics Society.

The *American Journal of Bioethics* (AJOB) has the highest "immediacy impact" factor—how quickly an article is cited once published—in any field, according to the ISI Web of Knowledge's 2010 Journal Citation Reports. *AJOB Neuroscience* is the newest addition of the AJOB family of journals.

Please direct specific questions to the special editor for this issue, Meera Modi [meera.modi@gmail.com](mailto:meera.modi@gmail.com)

Submissions must be received by **January 31st 2012** and can be submitted [here](#).



## Short-Term Neuroethics Fellowships for Graduate Students and Postdocs.

From May 29<sup>th</sup>—June 8<sup>th</sup>, 2012, the Penn Center for Neuroscience & Society will host 12 early-career neuroscientists for seminars, discussions and a short-term project in neuroethics.

Office space and accommodations will be provided along with a \$1,000 stipend.

To apply, please send the following materials by February 10, 2012, to [fellowship@neuroethics.upenn.edu](mailto:fellowship@neuroethics.upenn.edu):

- CV
- 150-word description of your current research
- 150-word statement of what interests you in neuroethics and why
- letter of recommendation from research mentor (sent by mentor directly)

Please entitle these emails YOURLASTNAME Fellowship Application and YOUR-

## "Like Us" on Facebook!

The International Neuroethics Society is now on Facebook! Be sure to "like" us today to get up to the minute updates, special sneak previews about our annual meeting, interesting articles, and to connect with fellow INS members.



Like us on  
Facebook

## Need a Good Read?

See our [website](#) to check out books by fellow INS members. Have you written something recently? Submit it to [chelsea@neuroethicssociety.org](mailto:chelsea@neuroethicssociety.org) with a brief description and link to have it included on our website.

## [\*\*Neuroethics Event Calendar\*\*](#)

Share your event with us at [administrator@neuroethicssociety.org](mailto:administrator@neuroethicssociety.org)

**February 3 Ethical, Legal and Social Aspects of Deep Brain Stimulation**, Cologne, Germany, The conference will be the last chord of the German-Canadian Research Project on ethical, legal and social aspects of DBS (ELSA-DBS). The most relevant results of the project of how Deep Brain Stimulation affects and interacts with matters of personal identity and quality of life will be presented, as well as legal rules and regulations. We will discuss new fields of application of DBS and pay special attention to their ethical, social and legal impact on patients' lives and physicians' practices. It will be held in the Cologne Chocolate Museum's "Bel Etage", boasting one of the nicest views of the city. See this [link](#) for more information.

**February 20—23 Current Methodological and Philosophical Issues in Neuroscience (Graduate Seminar)**, Free University Berlin, Germany. The seminar will focus on recent methodological and philosophical issues surrounding experimental designs, generation and statistical modeling of data, and the interpretation of experimental results in neuroscientific research. Beyond that, the cultural and social contexts of neuroscientific discourse and its effects on institutions and the media will be considered. The agenda of the research initiative Critical Neuroscience will be discussed by looking at particular examples. Advanced graduate and PhD students are requested to enroll via email as early as possible [jan.slaby@fu-berlin.de](mailto:jan.slaby@fu-berlin.de). Teaching language is German, See this link for more [information](#).

**July 30—August 8 Penn Neuroscience Boot Camp**, University of Pennsylvania, Philadelphia, PA. The Penn Neuroscience Boot Camp is designed to give participants a basic foundation in cognitive and affective neuroscience and to equip them to be informed consumers of neuroscience research. Through a combination of lectures, break-out groups, panel discussions and laboratory visits, participants will gain an understanding of the methods of

neuroscience and key findings on the cognitive and social-emotional functions of the brain, lifespan development and disorders of brain function. Each lecture will be followed by extensive Q&A. Break-out groups will allow participants to delve more deeply into topics of relevance to their fields. Laboratory visits will include trips to an MRI scanner, an EEG/ERP lab, and a transcranial magnetic stimulation lab. Participants will also have access to an extensive online library of copyrighted materials, including classic and review articles and textbook chapters in cognitive and affective neuroscience. See this [link](#) for more information.

**October 24—25 Brain Matters 3: Values at the Crossroads of Neurology, Psychiatry, and Psychology**, Cleveland Clinic, Ohio, Brain Matters 3 follows in the tradition of the two previous brain matters conferences in fostering further development in the field of NeuroEthics. Although abstracts will be elicited for presentations on a broad spectrum of NeuroEthics Research, the primary themes of the plenary talks for the conference address ethical dilemmas in the treatment and research for conditions with neurological symptomatology but that are without identifiable biological correlates/causes. Please contact Paul Ford, PhD at [fordp@ccf.org](mailto:fordp@ccf.org) for more information.

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**International  
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Our mission is to promote the development and responsible application of neuroscience through interdisciplinary and international research, education, outreach and public engagement for the benefit of people of all nations, ethnicities, and cultures. Questions and comments about the International Neuroethics Society should be directed to Karen Graham, Executive Director, [kgraham@neuroethicssociety.org](mailto:kgraham@neuroethicssociety.org).