

ISNR NEWSLETTER

July 2011

Fourteenth International Symposium on Neural Regeneration

Asilomar Conference Center - Pacific Grove, California

December 7-11, 2011

The Fourteenth International Symposium on Neural Regeneration will be held at the Asilomar Conference Center in Pacific Grove, California from December 7-11, 2011. The meeting will be co-sponsored by the US Department of Veterans Affairs, the Paralyzed Veterans of America, and the National Institutes of Health (National Institute of Neurological Disorders and Stroke). Support has also been requested from the California Institute for Regenerative Medicine (CIRM).

The keynote speaker for this year's symposium will be Mark Tuszynski from the University of California - San Diego and the San Diego VAMC. Featured talks will be given by Hunter Peckham from Case Western Reserve University and the Cleveland VAMC, Colin McCaig from University of Aberdeen, Ed Boyden from Massachusetts Institute of Technology, Stefan Heller from Stanford School of Medicine, and Dwight Bergles from Johns Hopkins School of Medicine. Following the format of preceding neural regeneration symposia, the program is

divided into six sessions, including: 1) Brain Machine Interface (BMI), chaired by Doug Weber; 2) Translational Approaches - "Lost in Translation", chaired by Naomi Kleitman; 3) Stem Cells - The promises and challenges, chaired by Itzhak Fischer; 4) DEBATE: The future of functional recovery is robotics not regeneration, chaired by David Shine; 5) ISN Symposium on Neurochemistry - Neurobiology of Repair, chaired by Jacqueline Bresnahan; and 6) Route 28 Student Presentations - Novel Ways to exploit stem cells for recovery of CNS function. The speakers for each of these sessions and their titles are given in the program on the following pages and on the ISNR website www.rehab.research.va.gov/ISNR. Please see the Editor's Comments section later in this newsletter for additional information about the website.

Posters and Abstracts

Free communication will be presented in the form of posters. Two poster sessions have been scheduled, one on Thursday afternoon, December

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8 and one on Saturday afternoon, December 10. Symposium registrants are invited to submit poster abstracts, the deadline for which is September 1. An individual may be first author on only one poster, but a laboratory group may submit more than one abstract. This year all abstract submissions will be submitted directly to the conference email address. Follow the instructions and forms on the website. If the number of abstract submissions exceeds available poster space, abstracts received after September 1 will not be considered. Please note that final acceptance of an abstract requires prior receipt of the registration form and fees. Therefore if you plan to submit a poster abstract you must also register for the meeting by September 1, 2011.

A small selection of poster abstract submissions may be chosen for short (15 minute)

platform presentations during various sessions. There is a box to check on the poster abstract submission form to be considered for a platform presentation. The individuals from the poster abstract submissions that are selected for short platform presentations will be notified in writing by mid-October. The Fredrick Seil ISNR Trainee Award will also be awarded again this year. This award is given in honor of Dr. Fredrick Seil, the first director and founder of the symposia series, and symbolizes his long-term commitment to both the symposium itself and the students and fellows who attend these meetings. The award will be given to the two best poster presentations by students or postdoctoral fellows, and will be chosen by two teams of planning board members who will review the poster presentations. The awardees will be recognized at the end of the symposium, immediately following the final session. The two awardees will have their names added to the Fredrick Seil Award Plaque, and will also each receive a check for \$250.

Similar to past symposia, talks are scheduled for morning, early afternoon and evening sessions, with afternoons free for viewing posters or for the multitude of activities available on the conference center grounds or in the surrounding area. The Asilomar Conference Center is a state of California facility located in Pacific Grove, just south of Monterey and

about 100 miles south of San Francisco. Asilomar State Beach is across the road from the conference center and is quite inviting for pleasant walks or spectacular views of the coast. Local attractions include the Monterey Bay Aquarium on Cannery Row, the Museum of Natural History, Point Pinos Lighthouse and the Pacific Grove Art Center, which showcases local, regional and international talent. To the south of Pacific Grove is 17-mile drive and Pebble Beach golf course. Further south is Carmel and site of the Carmel Mission. Carmel also hosts numerous art galleries, unique shops and within driving distance is Point Lobos State Reserve. The weather is generally warm and sunny in December, although evenings can be cold and rain is always possible. Dress at Asilomar is casual, and you should be aware that the main meeting room has limited heat so bring some warm clothes just in case.

Registration

Space is limited at the conference center, and early registration is advised. Rooms and meals are on a package basis. Most rooms are for occupancy by two or more people and sharing arrangements are encouraged, which will reduce the cost per individual. Day use arrangements are possible, but these are on a fee basis, and also require registration. To register, please detach or photocopy the registration form in the newsletter (or download the

form from the website) and fill in the appropriate information. Include a check drawn on a US bank or money order (purchase orders or credit cards cannot be accepted) for the appropriate registration fee(s) in US dollars made out to Regeneration Research Symposium and mail it to the Office of the International Symposium on Neural Regeneration at the address on the next page. Upon receipt of your registration form and fee, we will forward the forms and information for making your lodging arrangements directly with Asilomar. Please do not attempt to contact the conference center directly without having registered. The registration fee is \$150 for conference attendees, \$40 for graduate or post doctoral students or residents in training (a letter from the program director verifying the training status is required for qualification for the student registration rate), and \$30 for accompanying persons not attending the symposium, but planning to participate in the social activities, including the symposium banquet which will be held following the final session on Saturday, Dec. 10. Attendance at and participation in the symposium by minorities and women is invited and encouraged.

Questions about the symposium should be addressed to the International Symposium on Neural Regeneration at the following address:

Roger Madison, Ph.D., Director
International Symposium on Neural Regeneration
VA Medical Center (Bldg. 16/Room 38)
508 Fulton Street
Durham, NC 27705 USA
Phone: (919) 286-0411, ext. 7691
Fax: (919) 286-6811
E-mail: isnr@mc.duke.edu



2013 Session Proposals

We would encourage potential contributors to begin thinking now of ideas for a session for the Fifteenth International Symposium on Neural Regeneration, which will be held at the Asilomar Conference Center in December, 2013. Session proposals are due by July 1, 2012 so they can be reviewed by the program planning committee at its meeting in late July or August of next year. The program planning committee meets well in advance of the symposium in order to allow adequate time for application of

symposium support funds after a program has been generated. The format for a session proposal is available from our office, and the format must be followed for a proposal to be duly considered.

Announcement

Please save the date for the 8th Asia Pacific Symposium on Neural Regeneration and the 5th Pan Pacific Symposium on Stem Cell Research which will be held April 13-16, 2012 in Taiwan. The Asia Pacific Symposium is a direct outgrowth of ISNR meeting held at

A special thank you to representatives of our sponsoring organizations who were present at the ISNR Planning Board Meeting held September 2010 in Oregon. Pictured with Roger Madison are Vivian Beyda (Paralyzed Veterans of America) and Audrey Kusiak (VA Rehabilitation R&D).

Asilomar and is arranged to take place during the "off" years of the Asilomar meeting. Please make plans to attend.

To Submit an Abstract

Refer to the ISNR website: www.rehab.research.va.gov/ISNR for instructions regarding poster abstract submissions. Multiple poster abstracts may be submitted; however, each abstract must have a different first author. Please indicate whether you would like to be considered for a 15 minute platform presentation. Final acceptance of submissions requires prior registration for the meeting.

The deadline for poster abstract submission is September 1, 2011. First authors of poster abstracts will be sent instructions for mounting their poster by Nov. 15, 2011. Poster boards are approximately 8 feet wide by 4 feet high. If you have any questions, please contact the ISNR office at (919) 286-0411, ext. 7691 or send an email to isnr@mc.duke.edu.

The Director's Chair

From the Office of the
International Symposium on
Neural Regeneration



The International Neural Regeneration Symposia began in 1985, and have been held on a biennial basis since that time. The primary sponsor has been the Department of Veterans Affairs, with the NIH continuously co-sponsoring the symposia since 1987. In more recent years, generous support has also been given by the Paralyzed Veterans of America, the Christopher and Dana Reeve Foundation and the United Spinal Association. New sponsors for the 2011 meeting include Mission Connect and the International Society for Neurochemistry, as well as generous individual donors. The 2011 symposium will be the fourteenth meeting in this series. The generous support of all our sponsors is gratefully acknowledged.

The primary purpose of the symposium is to present current work in neural regeneration, especially in areas of research in which there has been some notable recent progress or in which particularly interesting issues have been raised. A secondary purpose is to foster an atmosphere that is both stimu-

lating and conducive to a free interchange of ideas among investigators, or between investigators and students. The Symposia series have become an established and regularly occurring event with high attendance by both students as well as internationally recognized experts in the field of neural regeneration.

For those who are not familiar with the meeting format, the following material should help to paint a picture of the symposium. The ISNR has a single session format, which includes morning, early afternoon and evening presentations with afternoons free to view posters or relax in pleasant natural surroundings or have a quiet discussion with one or more colleagues and/or students. This format has proven to be quite successful in terms of maximizing interactions among participants. During the previous thirteen symposia, a great deal of interchange has taken place at these symposia among scientists, among scientists and students, and among scientists and clinicians.

The morning sessions each include an introductory overview by the session chairman (15 minutes) and four presentations (20 - 25 minutes each, followed by a 5 - 10 minute question/discussion period). The two evening and one late afternoon sessions are similarly organized, except that there are three speakers per session. The major topics for each symposium are chosen for their timeliness, current interests, and recent progress. Also a factor is their novelty to the symposium, in the sense that these areas of research will not have been covered in depth in recent symposia. Session speakers are chosen on the basis of the contribution they can make to a session and the "cutting edge" quality of their work in a particular area. An attempt is made to balance the subject matter covered in a session.

Debate

The debate has proven to be a popular session and 2011 will continue the tradition. The debate entitled: "The future of functional recovery is robotics not regeneration" will again be moderated by David Shine (Baylor College of Medicine). Presenters will represent "affirmative" and "negative" views of the proposition followed by a rebuttal period.

Student Support

Various sponsors will provide funds for partial support of

symposium attendance by graduate students, postdoctoral fellows or clinical residents in training. Applications for support should include the following: 1) a letter indicating the applicant's area(s) of scientific interest and what benefits he/she would expect to attain from attending the symposium; 2) a curriculum vitae or resume; and 3) a letter from the training director both in support of the applicant and verifying the applicant's training status. While presentation of a poster is not a requirement for an award, a statement of intent to present a poster accompanied by a poster abstract will enhance an

application. Applications must be received by October 1, 2011 and should be sent to Dr. Madison. (see address for registration materials). Applicants will be notified via email of the evaluating committee's decision. Women and minority students are invited and encouraged to apply.

Poster Awards

Again this year, an additional small group of presenters will be recognized with the "ISNR 2011 Poster Award" for exemplary presentations. These awards will be chosen by plan-

ning board members who will review the presentations.

Symposium Website
www.rehab.research.va.gov/ISNR

The website contains basic information about the conference itself, registration, abstract submission, contacting ISNR and student travel awards. You will also find a list of scheduled guest speakers, a copy of previous newsletters, a photo gallery with pictures from prior symposia and previous conference information. There are also links to ISNR sponsors: NIH, VA and PVA.

2011 ISNR Planning Committee Members

Director - Roger Madison
 Duke University
 Durham VAMC

John Steeves
 ICORD
 Univ. of British Columbia

Michael Sofroniew
 Univ. of California
 Los Angeles

David Gardiner
 Univ. of California, Irvine

Jacqueline Bresnahan
 Univ. of California
 San Francisco

Jane Lebkowski
 Geron Corporation

James Guest
 Univ. of Miami

David Shine
 Baylor College of Medicine
 Houston VAMC



Pictured from L to R: J. Guest; J. Steeves; J. Bresnahan; V. Beyda; R. Madison; A. Kusiak; M. Sofroniew; D. Gardiner; D. Shine; and J. Lebkowski.

Guests from co-sponsoring institutions:

Vivian Beyda

Paralyzed Veterans of America

and

Audrey Kusiak

VA Rehabilitation Research and Development Service

14th ISNR - Program

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|---|---|--|---|
| Wednesday - December 7, 2011 | | 2:00 PM | Viewing: Poster Session 1 |
| 3:00 PM | Arrival of participants and check-in | 6:00 PM | DINNER |
| 6:00 PM | DINNER | Session Two: 7:15 - 9:00 PM (or beyond) | |
| 7:30 PM | Welcome and Keynote Address Mark Tuszynski University of California/VAMC San Diego, CA "Combinatorial Strategies for Regeneration After Spinal Cord Injury" | DEBATE - Proposition: The future of functional recovery is robotics not regeneration | |
| | | 7:15 PM | Moderator: David Shine |
| | | Affirmative: | Vivian Mushahwar University of Alberta |
| Thursday - December 8, 2011 | | | Chet Moritz University of Washington |
| Session One: 8:15 AM Brain Machine Interface (BMI) | | | Doug Weber University of Pittsburgh/VAMC |
| 8:15 | Chair: Doug Weber University of Pittsburgh/VAMC Pittsburgh, PA | | Alan Harvey University of Western Australia |
| 8:30 AM | Andrea Kubler University of Wurzburg - Germany "Out of the frying pan into the fire - BCI faces real world application" | Negative: | Hunter Peckham Case Western Reserve University/VAMC |
| | | | TBD |
| 9:00 AM | Bradley Greger University of Utah "Micro-electrodes in and on the cerebral cortex for decoding and encoding information" | | Jerry Silver Case Western Reserve University |
| | | | Arthur Prochazka University of Alberta |
| 9:30 AM | Chet Moritz University of Washington "Leveraging neural plasticity for the treatment of paralysis and other movement disorders" | Friday - December 9, 2011 | |
| 10:00 AM | Jennifer Collinger University of Pittsburgh/VAMC Pittsburgh, PA "Is BCI technology ready for prime time? The science is mature and the consumers are willing - what are we waiting for?" | Session Three: 8:15 AM Stem Cells - The promises and challenges | |
| | | 8:15 AM | Chair: Itzhak Fischer Drexel University |
| 10:30 AM | BREAK | 8:30 AM | Frank Laferla University of California, Irvine "Neural Stem Cells as a Treatment for Alzheimer's Disease" |
| 11:00 AM | Featured Speaker Hunter Peckham Case Western Reserve University/VAMC | 9:00 AM | Freda Miller Hospital for Sick Children Research Institute University of Toronto "Neural crest stem cells: transplantation versus recruitment for neural regeneration" |
| 12:00 Noon | LUNCH | | |
| 1:00 PM | Featured Speaker Colin McCaig University of Aberdeen (Scotland) "Regulating neural cell behaviour with extracellular electrical signals" | 9:30 AM | Nicholas Maragakis Johns Hopkins School of Medicine "Scientific and Clinical Challenges in using Stem Cells for Investigating and Treating Amyotrophic Lateral Sclerosis" |

14th ISNR - Program

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| 10:00 AM | Gary Steinberg Stanford "Neural Stem Cell Therapy for Stroke: Underlying Mechanisms and Clinical Translation" | 9:00 AM | Herb Geller NIH/NHLBI "The Sour Side of Sugars: Chondroitin Sulfate Signaling in Axonal Guidance" |
| 10:30 AM | BREAK | | |
| 11:00 AM | Featured Speaker Ed Boyden Massachusetts Institute of Technology "Optogenetics: Tools for Controlling Brain Circuits With Light" | 9:30 AM | Roman Giger University of Michigan "Identification and functional characterization of novel receptors for inhibitory chondroitin sulfate proteoglycans." |
| 12:00 Noon | LUNCH | | |
| 1:00 PM | Featured Speaker Stefan Heller Stanford School of Medicine "Inner ear sensory hair cells from stem cells" | 10:00 AM | Linda Noble University of California - San Francisco "Matrix metalloproteinases as modifiers of injury and recovery processes after spinal cord injury" |
| 2:00 PM | Poster Session 1 Poster Removal | | |
| 2:30 PM | Poster Session 2 Set-Up | 10:30 AM | BREAK |
| 6:00 PM | DINNER | 11:00 AM | Featured Speaker Dwight Bergles Johns Hopkins School of Medicine "Fate and function of glial progenitors in the mammalian CNS" |
| Session Four: 7:15 - 9:00 PM Translational Approaches - "Lost in Translation" | | | |
| 7:15 PM | Chair: Naomi Kleitman (NIH/NINDS) | | |
| 7:30 PM | Naomi Kleitman | 12:00 Noon | LUNCH |
| 8:00 PM | David Howells University of Melbourne "Avoiding bias at the bench" | 1:00 PM | Viewing: Poster Session 2 |
| 8:30 PM | TBD | Session Six: 4:15 - 5:30 PM Route 28 Student Presentations - Novel ways to exploit stem cells for recovery of CNS function. | |
| 9:00 PM | Jan Nolta Univ. of California - Davis "Working toward cellular therapies to treat Huntington's disease" | 5:30 PM | Symposium Summary |
| Saturday - December 10, 2011 | | 6:00 | BREAK |
| Session Five: 8:15 AM ISN Symposium on Neurochemistry and Neurobiology of Repair | | 6:30 | Symposium Banquet |
| 8:15 AM | Chair: Jacqueline Bresnahan University of California, San Francisco | 7:30 | Awards Ceremony (Banquet Hall) |
| 8:30 AM | Klaus Nave Max Planck Institute for Experimental Medicine - Germany "The role of myelinating glia in preserving axon function" | | |

Symposium Registration Form

Fourteenth International Symposium on Neural Regeneration
December 7-11, 2011
Asilomar Conference Center, Pacific Grove, CA, USA

Upon receipt of payment with this Registration Form,
you will be sent an Asilomar Housing Registration Form.

REGISTRATION FORM - THIRTEENTH INTERNATIONAL SYMPOSIUM ON NEURAL REGENERATION

December 7-11, 2011 - Asilomar Conference Center - Pacific Grove, CA

Name: _____
Address: _____
Telephone: _____
Fax: _____ Email: _____

I plan to present a poster: Yes___ No___ (Abstract Deadline is September 1, 2011)

Please enclose a check/money order made out to "Regeneration Research Symposium" to cover the following:

| | | |
|---|-------|----------|
| Registration Fee (regular) | _____ | \$150 |
| Registration for accompanying person (not attending the conference) | _____ | \$ 30 |
| Registration for a student, fellow or resident (with letter from training director) | _____ | \$ 40 |
| | _____ | \$ Total |

Please circle student status: Graduate Student Post-Doc M.D. Post-Doc Ph.D. Resident

Name of accompanying person: _____

Sorry, credit cards or purchase orders are NOT accepted. Please send a check drawn on a US bank or money order in US dollars.

Please mail this form plus payment to.

Roger Madison, Ph.D., Director
International Symposium on Neural Regeneration
VA Medical Center (Bldg. 16/Room 38)
508 Fulton Street
Durham, NC 27705 USA

Questions - Please call (919)286-0411, ext. 7691, fax (919)286-6811 or email isnr@mc.duke.edu