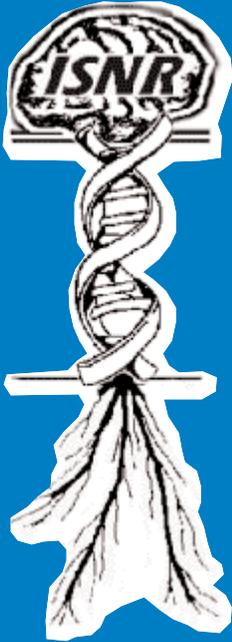


REGENERATION

RESEARCH

N E W S L E T T E R

June 2007



Asilomar Conference Center

Pacific Grove, California

December 5-9, 2007



photo by Rao Chadaram

INSIDE:

| | |
|----------------------|---|
| The Director's Chair | 2 |
| Abstract Submission | 4 |
| Symposium Program | 6 |
| Registration Form | 8 |

Twelfth International Symposium on Neural Regeneration

The Twelfth International Symposium on Neural Regeneration will be held at the Asilomar Conference Center in Pacific Grove, California from December 5-9, 2007. The meeting will be co-sponsored by the US Department of Veterans Affairs, the Paralyzed Veterans of America, the National Institutes of Health (National Institute of Neurological Disorders and Stroke/Office of Rare Diseases), the Christopher Reeve Paralysis Foundation and the United Spinal Association. Additionally, a generous individual donation from the Ron Shapiro Charitable Trust helps fund the symposium.

The keynote speaker for this year's symposium will be Stephen G. Waxman from Yale Medical School. Featured talks will be given by Melitta Schachner from Universitat Hamburg, Douglas A. Kerr from Johns Hopkins University School of Medicine, Steven C. Cramer, from the University of California - Irvine Medical Center and Douglas Wallace from the University of California - Irvine. Following the format of preceding neural regeneration symposia, the program is divided into six sessions, which include: 1) Intrinsic Mechanisms of

Regeneration, chaired by Herbert M. Geller; 2) Noninvasive MR Imaging of Spinal Cord Injury and Repair, chaired by Patrick W. Stroman; 3) Role of Training, Synaptic Plasticity and learning on Functional Recovery, chaired by Fernando Gomez-Pinilla; 4) Growth Across The Glial Scar Will Be Sufficient For Functional Recovery (debate), chaired by Keith Crutcher; 5) Human Stem Cells for Model Development and Repair: Opportunities and Challenges, chaired by Arlene Chiu; and 6) Emerging Topics, chaired by (TBD). The speakers for each of these sessions and their titles are given in the program on the following pages.

The program for this year's symposium is included on page six. A registration form follows on page eight. A complete list of speakers and titles for each scheduled session is also available on the Neural Regeneration Website at www.rehab.research.va.gov/neural/neural.htm. Please see the Editor's Comments section later in this newsletter for additional information about the website.

[see SYMPOSIUM, page 4](#)

The Director's Chair

From the Office of the International Symposium on Neural Regeneration



Roger Madison

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 Reeve Paralysis Foundation and the United Spinal Association, all of whom co-sponsored the 1999, 2001, 2003 and 2005 symposia. The Ron Shapiro Charitable Trust also sponsors the event, as it did in 2003 and 2005. The 2007 symposium will be the twelfth meeting in this series. The generous support of all of our sponsors is gratefully acknowledged.

The primary purpose of each symposium is to present current work in neural regeneration, especially in those areas of research in which there has been some notable recent progress or

in which some particularly interesting issues have been raised. A secondary purpose is to foster an atmosphere that is both stimulating and conducive to a free interchange of ideas among investigators, or between seasoned investigators and students. These International Neural Regeneration Symposia have become established, regularly occurring events 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 International Symposium on Neural Regeneration has a single session format, including morning, late afternoon and evening presentations, with afternoons free to view posters, relax in pleasant natural surroundings, or have a quiet discussion with colleagues and/or students. This format has proven to be quite

successful in terms of maximizing interactions among participants. During the previous eleven symposia a great deal of interchange took place among scientists, scientists and students, and 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 five- to ten- 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 interest, 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.

SUPPORT FOR STUDENTS

The United Spinal Association (USA) has again provided 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)

[continued next page](#)

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, 2007 and should be sent to Dr. Madison at the same address as the Symposium Registration materials at the end of this newsletter. Applicants will be notified of the evaluating committee's decision before October 28. Women and minority students are especially invited and encouraged to apply.

USA Poster Awards

Again this year, an additional small group of presenters will be recognized with the "ISNR 2007 United Spinal Poster Award" for exemplary presentations. These awards will be chosen by planning board members who will review the presentations.

Debate

Also for 2007, one program session will again be held in debate format entitled: "Growth Across The Glial Scar Will Be Sufficient For Functional Recovery". The session will be chaired by Keith Crutcher (University of Cincinnati). Three presenters will represent the "pro" side of the issue, while the "con" side will be argued by three others. The for-

mat will include a group presentation of each side's argument followed by a rebuttal period.

2009 Session Proposals

We would encourage potential contributors to begin thinking now of ideas for a session for the Thirteenth International Symposium on Neural Regeneration, which will be held at the Asilomar Conference Center in December, 2009. Session proposals are due by July 1, 2008 so they can be reviewed by the program planning committee at its meeting in late July or August of 2008. The program planning committee meets well in advance of the symposium in order to allow adequate time for applications for symposium support after a program has been generated. The format for a session proposal is also available from our office, and the format must be followed for a proposal to be duly considered.

Symposium Website

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 Regeneration Research Newsletters, a photo gallery with pictures from prior symposia and previous conference information. There are also links to the ISNR sponsors: PVA, USA, NIH, CRPF, and the Shapiro Spinal Cord Research Foundation.

ISNR 2007 Planning Committee Members

Director – Roger Madison
VAMC/Duke University

Marie Filbin
Hunter College

David Gardiner
University of California-Irvine

Jane Lebkowski
Geron Corporation

Michael Sofroniew
University of California-Los Angeles

John Steeves
ICORD/University of British Columbia

Guests from co-sponsoring institutions:

Vivian Beyda
United Spinal Association

Naomi Kleitman
NIH-NINDS

Patricia Dorn
VA, Rehabilitation Research and Development Service

ISNR Staff

Administrative Assistant:
Frances Stuart

Photographer:
Rao Chadaram

POSTERS AND ABSTRACTS

Free communication will be presented in the form of posters. Two poster sessions have been scheduled, one on Thursday afternoon, December 6, and the other on Saturday afternoon, December 8. 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 (both oral and poster) will be submitted directly to the conference email address. Follow the instructions 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, 2007.

Two of the poster abstract submissions will be selected for short (15-minute) platform presentations during the last session, "Emerging Topics." Please indicate if you would like to be considered for a platform presentation. The two individuals from the poster abstract submissions that are selected for short platform presentations will be notified in writing by mid-October.

In addition to the USA poster awards described on page 3, the two best poster presenters (students or postdoctoral fellows) will be awarded the Fredrick Seil ISNR Trainee Award. This award, which was inaugurated for ISNR 2003, 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 winners 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, during the symposium banquet dinner. 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, late 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 inviting for pleasant walks or spectacular views of the coast.

Pacific Grove and its vicinity offer a rich array of additional attractions. Bus, trolley, boat and walking tours are available, and a car trip along 17 Mile Drive offers a view of the Lone Cypress and scenic coastline. Whale-watching, otter spotting and touring the Monarch Butterfly Sanctuary

To Submit an Abstract

Refer to the ISNR website at www.rehab.research.va.gov/Neural/neural.htm 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, 2007. First authors of poster abstracts will be sent instructions for mounting their poster by Nov. 15, 2007. Poster boards are approximately 8 feet wide by 4 feet high. If you have questions, please write to us at the above address, call (919)286-0411, ext. 7691, fax (919) 286-6811, or send an email to isnr@mc.duke.edu.

continued next page

are popular ways to take advantage of the area's wildlife, as are trips to the Monterey Bay Aquarium and the Pacific Grove Museum of Natural History. The Monterey Peninsula's Point Pinos Lighthouse is the oldest, continuously operating lighthouse on the West Coast, and is open to the public.

The weather is generally warm and sunny in December although evenings can be cold and rain is always possible. Dress at Asilomar is casual. The heat in the meeting rooms is difficult to maintain, so bring some warm clothes just in case.



photos by Rao Chadaram

Scenic views of Asilomar

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 appropri-

ate 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 below. 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 \$100 for conference attendees, \$30 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 \$20 for accompanying

persons not attending the symposium, but planning to participate in the social activities, including the symposium banquet. Attendance at and participation in the symposium by minorities and women is invited and encouraged.



12th International Symposium on Neural Regeneration PROGRAM

Wednesday, December 5, 2007

| | | | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | 6:00PM | DINNER |
| 3:00 PM | Arrival of participants and check-in | | |
| | | Session Two: 7:15 PM | |
| | | | Noninvasive MR Imaging of Spinal Cord Injury and Repair |
| 6:00 PM | DINNER | | |
| 7:30 PM | Welcome and Keynote Address Stephen G. Waxman, Yale Medical School New Haven, CT, USA "Men on Wheels, Men on Fire: Sodium Channels as Molecular Targets in Disorders of the Spinal Cord" | 7:15 PM | Chair: Patrick W. Stroman Queen's University Kingston, Ontario, Canada |
| | | 7:30 PM | Eric Schwartz University of Pittsburgh Medical Center Pittsburgh, PA "Diffusion Tensor MRI (DTI) and the Evaluation of Axonal Integrity Following Spinal Cord Injury" |

Thursday, December 6, 2007

| | | | |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Session One: 8:15AM | | | |
| Intrinsic Mechanisms of Regeneration | | 8:00 PM | Thomas Mareci University of Florida Gainesville, FL "The resolution of complex spinal cord and brain structures in vivo and ex vivo using high angular resolution diffusion MRI" |
| 8:15 AM | Chair: Herbert M. Geller Developmental Neurobiology Group NIH/NHLBI | | |
| 8:30 AM | Paul Bridgman Washington University St. Louis, MO, USA "Understanding mechanisms of axon guidance: how growth cones steer" | 8:30 PM | Adam Flanders Thomas Jefferson University Philadelphia, PA "Clinical Utility of MRI in Spinal Cord Injury: Correlation with Clinical Deficit and Recovery" |
| 9:00 AM | Frank Gertler Massachusetts Institute of Technology Cambridge, MA "Role of cytoskeletal dynamics during neurite initiation and outgrowth" | | |
| 9:30 AM | Adriana Di Polo University of Montreal Montreal, Quebec, Canada "The long and winding road: axon regeneration within the optic nerve" | | |
| 10:00 AM | Joseph Fetcho Cornell University Ithaca, NY "Imaging regeneration in vivo" | | |
| 10:30AM | BREAK | | |
| 11:00AM | Featured Speaker Melitta Schachner Universitat Hamburg Hamburg, Germany "Recognition molecules and neural repair" | 9:00 AM | Jeffrey Kleim Malcolm Randall VA Hospital University of Florida - Gainesville, FL - USA "The Utility of Adjuvant Therapies to Enhance Cortical Plasticity and Recovery from Stroke" |
| 12:00 Noon | LUNCH | 9:30 AM | Randolph Nudo University of Kansas Medical Center Kansas City, KS - USA "Long-distance axonal sprouting after injury to cerebral cortex of adult mammals" |
| 1:00 PM | Viewing: Poster Session 1 | | |
| 5:00PM | Featured Speaker Douglas A. Kerr Johns Hopkins University School of Medicine Baltimore, MD "Stem Cells and Spinal Cord Disorders: Models of Disease and Therapeutic Strategies" | 10:00 AM | V. Reggie Edgerton University of California - Los Angeles Los Angeles, CA - USA "Can locomotion be controlled by peripheral afferents after a complete spinal cord injury?" |

Friday, December 7, 2007

Session Three: 8:15AM
Role of Training, Synaptic Plasticity and Learning on
Functional Recovery

| | |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:15 AM | Chair: Fernando Gomez-Pinilla University of California - Los Angeles Los Angeles, CA |
| 8:30 AM | Fernando Gomez-Pinilla University of California - Los Angeles Los Angeles, CA "The Influences of Diet and Exercise on Plasticity and Repair" |
| 9:00 AM | Jeffrey Kleim Malcolm Randall VA Hospital University of Florida - Gainesville, FL - USA "The Utility of Adjuvant Therapies to Enhance Cortical Plasticity and Recovery from Stroke" |
| 9:30 AM | Randolph Nudo University of Kansas Medical Center Kansas City, KS - USA "Long-distance axonal sprouting after injury to cerebral cortex of adult mammals" |
| 10:00 AM | V. Reggie Edgerton University of California - Los Angeles Los Angeles, CA - USA "Can locomotion be controlled by peripheral afferents after a complete spinal cord injury?" |

12th International Symposium on Neural Regeneration PROGRAM

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10:30 AM | BREAK | 9:00 AM | Su-Chun Zhang University of Wisconsin Madison, WI, USA "Neural Subtype Specification of Human ESCs: Model for Neural Development and Source for Brain Repair" |
| 11:00 AM | Featured Speaker Steven Cramer University of California - Irvine Medical Center Irvine, CA - USA "Recovery from Stroke" | 9:30 AM | Lorenz Studer Sloan-Kettering Institute New York, NY, USA "Human ES Cells in Development and Neural Repair" |
| 12:00 Noon | LUNCH | 10:00 AM | Curt Freed University of Colorado Health Sciences Center Denver, CO, USA "Converting Human Embryonic Stem Cells to Dopamine Neurons for the Treatment of Parkinson's Disease" |
| 1:00 PM | Poster Session 1 poster removal | 10:30 AM | BREAK |
| 1:30PM | Poster Session II set-up | 11:00 AM | Featured Speaker |
| 5:00PM | Featured Speaker Douglas Wallace University of California - Irvine, CA, USA "Mitochondrial Etiology of Aging and Age-related Neurodegenerative Disease" | 12 Noon | LUNCH |
| 6:00 PM | DINNER | 1:00 PM | Viewing: Poster Session II |
| Session Four: 7:15PM-9:05PM (or beyond) DEBATE: Growth across the Glial Scar Will Be Sufficient for Functional Recovery | | Session Six: 4:15PM Emerging Topics/Clinical Updates | |
| 7:15 PM | Moderator: Keith A. Crutcher University of Cincinnati Medical Center | 4:15 PM | Chair: TBD |
| TEAM A | Geoffrey Raisman University College, London | 4:30 PM | abstract speaker 1 |
| | James W. Fawcett University of Cambridge | 4:45 PM | abstract speaker 2 |
| | Paul J. Reier University of Florida | 5:00 PM | open slot |
| TEAM B | Marie T. Filbin Hunter College-City University of New York | 5:30 PM | SCI trial update Michael Fehlings University of Toronto Toronto, Ontario, Canada "Repair and Regeneration of the Injured Spinal Cord: Opportunities for Clinical Translation of Basic Research Discoveries" |
| | Jeffery D. Kocsis Yale University School of Medicine | | |
| | Edward Hall University of Kentucky College of Medicine | 6:00 PM | BREAK |
| <u>Saturday, December 8, 2007</u> | | 6:30 PM | Symposium Banquet |
| Session Five: 8:15AM Human Stem Cells for Model Development and Repair: Opportunities and Challenges | | 7:30 PM | Awards Presentation (Banquet Hall) |
| 8:15 AM | Chair: Arlene Chiu California Institute for Regenerative Medicine San Francisco, CA | <u>Sunday, December 9, 2007</u> | |
| 8:30 AM | Hans Keirstead University of California - Irvine, CA, USA "hESC-Derived Cell Populations for the Treatment of Spinal Cord Injury" | Departure of Participants | |

Symposium Registration Form

Twelfth International Symposium on Neural Regeneration December 5-9, 2007 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 - TWELFTH INTERNATIONAL SYMPOSIUM ON NEURAL REGENERATION

December 5-9, 2007 - Asilomar Conference Center - Pacific Grove, CA

Name: _____
Address: _____

Telephone: _____
Fax: _____ Email: _____

I plan to present a poster ___Yes ___No (Abstract Deadline is September 1, 2007)

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

| | | |
|--------------------------------------------------------------------------------------|-------|---------|
| Registration Fee (regular) | _____ | \$100 |
| Registration for accompanying person (not attending the conference)* | _____ | \$20 |
| Registration for a student, fellow or resident (with letter from training director) | _____ | \$30 |
| Please circle student status: Graduate Student Post-Doc M.D. Post-Doc Ph.D. Resident | _____ | \$Total |

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**

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