**Workshop #1:**
**Spinal Cord Injury Research Methods**

*Accelerate the pace of research. Equip your lab with the latest spinal cord research methods.*

**LEARN STANDARDIZED RESEARCH METHODS**

The Spinal Cord Injury Project at Rutgers University is offering intensive three-day workshops on spinal cord injury research methods. The workshop features lectures, demonstrations, and hands-on experience in all facets of spinal cord injury research. Featured is the MASCIS Impactor, a rat model of spinal cord contusion that has been adopted by over 100 of the world’s leading spinal cord research laboratories.

**CONTENTS INCLUDE:**

- Spinal cord injury rat contusion model (MASCIS Impactor) including surgical methods.
- Isolated spinal cord *in vitro* techniques.
- Animal care of spinal cord injured rats.
- Techniques of intravenous, intrathecal, and cell transplant therapies.
- Outcome measures: atomic absorption spectroscopy, gene expression, neurophysiology, and chronic locomotor recovery assessment, Basso-Beattie-Bresnahan (BBB) scoring.

**WHO SHOULD ATTEND?**

- Laboratories that have, or have ordered, MASCIS contusion devices.
- Senior researchers in other field who are interested in spinal cord injury research.
- Research-oriented neurosurgeons, orthopedic surgeons, and neurologists.
- Postdoctoral fellows and research associates.

**Workshop #2:**
**Microarray Techniques for Neuroscientists**

*This workshop prepares participants to initiate microarray studies and work in collaborations.*

**ADD NEW TOOLS TO YOUR LABORATORY**

**WHY …** The discovery and sequencing of whole genomes now makes it possible to detect large numbers of transcripts in complex mixtures such as cell lines, primary cultures, or whole tissues.

**HOW …** Microarray technology places large numbers of identified probes onto a solid support so that high-resolution, high-density techniques can detect individual mRNAs.

**WHO …** Researchers in neuroscience can now include examination of these large mRNA populations.

**WORKSHOP TOPICS**

- Arrays: Theory, oligonucleotide, cDNA.
- RNA: Preparation, quality evaluation.
- Target Preparation: Direct fluorescent labeling, IVT/biotinylation, and indirect dendrimer technologies.
- Hybridization: techniques
- Fluorescence scanner: theory and operation
- Data Analysis: Hierarchical clustering, self-organizing maps, functional clustering.

**WHO SHOULD ATTEND?**

- Neuroscientists: evaluate microarray technologies for use in your laboratory.
- Researchers: build collaborations for microarray experiments.
- Postdoctoral fellows, research associates, technicians: expand your technical expertise.

*Co-Sponsor: The Center For Applied Genomics*

**REGISTER EARLY - SPACE IS LIMITED ON A FIRST-COME BASIS.**
The W. M. Keck Center for Collaborative Neuroscience is dedicated to multidisciplinary, collaborative research and to accelerating the translation of scientific discoveries into effective human therapies.

Located on the New Brunswick/Piscataway campus of Rutgers, the State University of New Jersey (USA), the W. M. Keck Center was dedicated in 1999. The Center is a state-of-the-art facility designed to expedite the sharing of information within the laboratory and throughout the world.

THE SPINAL CORD INJURY PROJECT

The Spinal Cord Injury Project is the first focus of the W. M. Keck Center for Collaborative Neuroscience. Its goal is the development of effective treatments for acute and chronic spinal cord injuries.

… a cure is achievable and collaboration is the means by which that goal will be reached.

Detailed Information:

Dates

Spinal Cord Injury Research Methods
December 3-5, February 25-27, June 10-12, August 19-21. Registration, $650 - includes all teaching, training, laboratory materials, the instructional manual, lunch, snacks, and Tuesday dinner out.

Microarray Techniques for Neuroscientists
December 6-7, February 28-March 1, June 13-14, August 22-23. Registration, $500 - includes training, materials, instructional manual, lunch, snacks, and Thursday dinner out. [Participants also may bring two RNA preparations (rat or mouse only 5-10 µg each: A260/A280 >1.7) for use in hybridizing one microarray. For details, contact Dr. Ron Hart, rhart@andromeda.rutgers.edu.]

(10% discount and priority placement for those attending both workshops in the same week. Dual Registration: $1,035.)

Daily Schedule

Each day begins at 9:00 and ends at 5:00. Final day of each workshop ends at 4:00. Please arrange travel plans so that you remain through the completion of the workshop. (Tuesday evening and Thursday evening respectively are group dinners out.)

Hotel Reservations

Special rates are available at the Days Inn, 101 New World Way, South Plainfield, NJ 07080. $63 single, $72 double includes complimentary breakfast and daily shuttle service to and from our Center. Please mark housing plans on the registration form. Reservations will be made through our office.

Travel from Airport

The closest airport is Newark International, Newark, New Jersey. State Shuttle, $30 one-way; taxi approximately $50; private car, $83.00 one-way for 1-2 persons one way ($10/additional person.), with curbside pickup, tolls, and tip. Mark choice on form.

To Register

To register, complete the enclosed registration forms marking your first and second choice dates. Return promptly to hold your place. Registration will be finalized upon receipt of payment. Confirmation will be sent by the fastest means possible. Please mail, e-mail or fax to:

Workshop Registration: W. M. Keck Center for Collaborative Neuroscience
604 Allison Road, D-251
Piscataway, New Jersey 08854
Phone: (732) 445-2061 Fax: 732-445-2063 e-mail: SCIProject@biology.rutgers.edu.

Scientific Contributions

The research conducted at this Center offers hope to people with spinal cord injuries. Findings also are applicable to persons with brain injuries, stroke, multiple sclerosis, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, transverse myelitis, and other problems of the central nervous system. The scientific contribution of the center is significant – the human impact, substantial.

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