

**PROGRESS REPORT FOR THE  
SPINAL CORD AND BRAIN INJURY RESEARCH CENTER  
(SCoBIRC)**

**UNIVERSITY OF KENTUCKY**

**SUBMITTED TO THE  
KENTUCKY SPINAL CORD AND HEAD INJURY RESEARCH TRUST  
(KSCHIRT)**

**NOVEMBER 28, 2000**

**JAMES W. GEDDES, PH.D.**

**SCoBIRC DIRECTOR**

This report describes our progress in achieving the goals outlined in the 1999 Progress Report and in the five-year plan to establish the Spinal Cord and Brain Injury Research Center (SCoBIRC). Also presented are related SCoBIRC activities including the Invited Lecture Series, Grant Submissions, and an update on the Rehabilitation Symposium being planned for September, 2001. Finally, we present the SCoBIRC goals for 2001 and a revised outline of the five-year plan.

- **RECRUIT ONE ADDITIONAL FACULTY MEMBER**

Geoff Manley, M.D., Ph.D., a Neurosurgeon from the University of California, San Francisco will be returning for his second visit November 29-December 1, 2000. Dr. Manley is a candidate for our Clinical Director position and is being recruited in collaboration with the Division of Neurosurgery. In addition to his neurosurgical skills, Dr. Manley has a strong background in basic research related to neurotrauma.

In February, 2000 we advertised for a tenure-track faculty position in *Science* and received fifty applications. Four applicants were interviewed and two invited for second interviews. Unfortunately, we were unable to recruit either candidate. This search has been re-opened and advertised in the November 3, 2000 issue of *Science*.

In addition to the SCoBIRC positions, two new faculty members in the Department of Physical Therapy have been recruited, Dr. Sue Queen and Dr. Pat Kitzman. Dr. Queen's research focuses on alterations in glutamate transporters and receptors following spinal cord injury. Dr. Kitzman is interested in both the beneficial and detrimental aspects of the neuroplasticity that occurs following spinal cord injury.

Cardinal Hill Rehabilitation Hospital has provided funds matched by the state to establish the Endowed Chair of Neurorehabilitation Research, the Endowed Professorship in Spinal Cord Injury Clinical Research, and the Endowed Professorship in Traumatic Brain Injury Clinical Research. SCoBIRC is working closely with the Department of Physical Medicine and Rehabilitation and Cardinal Hill Rehabilitation Hospital to fill these positions.

- **ESTABLISH A CORE LABORATORY FOR NEUROTRAUMA INJURY MODELS**

The purpose of this core facility is to facilitate research on spinal cord and head injury by investigators who do not have the injury models established in their own laboratories. The core facility currently incorporates the MASCIS impactor (formerly referred to as the NYU impactor) model of spinal cord contusion injury. Shu-Xin Zhang, M.D., Ph.D., a Research Associate in Dr. Geddes laboratory, recently received intensive training from the developer of the impactor, Dr. Wise Young at Rutgers University. The Neurotrauma core facility has been utilized by Dr. Sue Queen and Dr. Pat Kitzman. Dr. Sonia Carlson and Dr. George Smith have made plans to use the facility. Additional neurotrauma injury models will be added as needed.

- **ESTABLISH A SCIENTIFIC ADVISORY BOARD**

The External Advisory Board will review the progress of SCoBIRC on an annual basis. Dr. Ed Hall from Parke-Davis Pharmaceuticals has agreed to be a member of the External Advisory Board and will visit SCoBIRC in April, 2001. Dr. Hall and three other investigators (Dr. Gail Johnson, Dr. Jerry Silver, and Dr. Brad Stokes) have agreed to serve on the External Advisory Board for a Program Project Grant submitted by Dr. Geddes.

An Internal Advisory Group has been established to work with Dr. Geddes in establishing and achieving the goals outlined for SCoBIRC. The Internal Advisory Group consists of Dr. James Abbas, Dr. David Gater, Dr. Steve Scheff, and Dr. George Smith, and Dr. Joe Springer.

- **ESTABLISH A SCoBIRC FOUNDATION TO ASSIST WITH OUTREACH AND FUNDRAISING**

University regulations do not allow us to establish a separate SCoBRIC Foundation. We are working closely with H.I. Stroth, College of Medicine Dean's Office, to identify key projects to highlight for fundraising purposes.

- **HOST THE KSCHIRT-SUPPORTED NEUROTRAUMA RESEARCH MEETING.**

The 6<sup>th</sup> Annual Kentucky Spinal Cord and Head Injury Research Symposium was held on June 12-14, 2000, at the Embassy Suites Hotel, Lexington. There were one hundred and thirty registered participants, ten invited speakers, and presentations from KSCHIRT-funded investigators. In addition to the generous support provided by KSCHIRT, additional financial support was obtained from the Whitaker Foundation; Medtronics Corporation; and Parke-Davis Pharmaceuticals. This meeting was very successful and the feedback has been extremely positive.

- **SCoBIRC LECTURE SERIES AND SYMPOSIUM**

Thanks to the generous support of KSCHIRT, we hosted the following speakers during the past year (2000):

- John McDonald, Washington University
- Wolfgang Streit, University of Florida
- Gila Moalem, The Weizmann Institute of Science, Israel
- Xu-ming Xu, St. Louis University
- Rodney Guttman, University of Pennsylvania
- Ron Triolo, Case Western Reserve University
- Robert Cargill, Georgia Tech
- Thomas Findley, UMDNJ and Kessler Institute
- Hans Keirstead, University of California at Irvine

Speakers invited for 2001 include:

- Ravi Bellamkonda, Case Western Reserve University
- Ed Hall, Pfizer Pharmaceuticals
- David Hovda, UCLA
- Brad Stokes, Ohio State University
- Ed Wirth, University of Florida
- Jerry Silver, Case Western Reserve University

- **NEUROTRAUMA SOCIETY ANNUAL MEETING**

Seventeen investigators from the University of Kentucky attended the Neurotrauma Society annual meeting in New Orleans, November 2000. This demonstrates the success of KSCHIRT in attracting investigators into spinal cord and head injury research at the University of Kentucky. Also noteworthy is that two of our graduate students were finalists for the best student poster award.

- **PROGRAM PROJECT GRANT SUBMISSIONS**

Three multi-investigator program project (P01) grants were submitted to NIH/NINDS during the past year, each focusing on Neurotrauma. The Principal Investigators were Dr. Jim Geddes, Dr. Steve Scheff, and Dr. Joe Springer. Dr. Springer and Dr. Scheff received encouraging scores and will submit revised applications. The application from Dr. Geddes is pending.

- **2001 REHABILITATION SYMPOSIUM**

Plans are underway to host a KSCHIRT-sponsored conference: "Clinical Advances in Neurorehabilitation," September 27-29, 2001, Hyatt Regency Hotel, Lexington. Confirmed featured speakers include: Reggie Edgerton, Ph.D., UCLA, *Partial Weight-Supported Ambulation in Neurorehabilitation*; and Hunter Peckham, Ph.D., Case Western Reserve University, *Functional Gains with the Free-Hand System*. Additional sessions will include presentations on Health and Function, Technology for Community Reintegration, Spinal Cord Injury, Traumatic Brain Injury, and Rehabilitation Technology.

**SCoBIRC Goals for 2001**

- Continue Faculty Recruitment
- Host Neurorehabilitation Symposium
- Plan for Research Symposium
- Develop SCoBIRC Web Page and Brochure

**SCoBIRC Five-Year Plan  
Progress and Revisions**

**Year 01 (1998-99)**

- Recruit Director (Completed)
- Recruit one Faculty Position (Completed)
- Establish Distinguished Lecture Series (Ongoing)
- Hire Center Staff (Completed)

**Year 02 (1999-00)**

- Recruit Clinical Director (In Progress)
- Host Spinal Cord and Brain Injury Symposium (Completed)
- Establish Center Advisory Board (In Progress)

**Year 03 (2000-01)**

- Recruit one Faculty Position (Ongoing)
- Host Rehabilitation Symposium (Planning Stages)
- Develop SCoBIRC Web Page and Brochure

**Year 04 (2001-02)**

- Recruit one Faculty Position
- Host Spinal Cord and Brain Injury Symposium

**Year 05 (2002-03)**

- Recruit Postdoctoral Researchers and Graduate Students