

# NEW JERSEY COMMISSION ON BRAIN INJURY RESEARCH

## *2011 Annual Report*



**Chris Christie, Governor**  
**Kim Guadagno, Lt. Governor**



**Mary E. O'Dowd, MPH**  
**Commissioner**



January 27, 2012

The Honorable Chris Christie, Governor  
Office of the Governor  
State House  
PO Box 001  
Trenton, New Jersey 08625

Dear Governor Christie:

I am pleased to submit the report of the New Jersey Commission on Brain Injury Research for your review and approval. Once again the Commission has had an active and productive year. We recently completed the fifth competition for research projects directed at mechanisms of neural regeneration and repair, and are confident that these efforts will make significant contributions to our knowledge of recovery from traumatic brain injury, the development of effective interventions, and ultimately to the improvement of the quality of life for people who have sustained catastrophic brain injuries.

I would like to acknowledge the efforts and enthusiasm of all of the Commissioners during the past year, as well as the support of the New Jersey Department of Health and Senior Services for their valuable support and contributions towards the work of the Commission on Brain Injury Research.

Sincerely,

Dennie Todd  
Acting Chairperson

## **New Jersey Commission on Brain Injury Research**

### **Members of the Commission**

**Dennie Todd, Acting Chairperson**

**Dennis Benigno**

**Meiling Chin, MBA**

**Karl Herrup, Ph.D.**

**Cynthia Kirchner, MPH**

**John LoCurto, M.D.**

**Nicholas Ponzio, Ph.D.**

### **Commission Personnel**

**Christine Traynor, Administrator**

**Mary Ray, Fiscal Administrator**

**Health & Agriculture Building, Market & Warren Streets, P.O. Box 360  
365 S. Warren Street, 5<sup>th</sup> Floor, Room 502, Trenton, New Jersey 08625  
609-633-6465**

## **ACKNOWLEDGMENTS**

The NJCBIR would like to express its sincere appreciation to all Commission members, and to the New Jersey Department of Health and Senior Services for their expertise, time, and effort that contributed to the development of this report and support of the program throughout the year.

The NJCBIR also acknowledges the contributions of the Center for Health Statistics for the brain injury surveillance statistics, and to Commission staff members Christine Traynor and Mary Ray for their contributions of substantial material as well as their review and valuable comment.

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## EXECUTIVE SUMMARY

The New Jersey Commission on Brain Injury Research, established in 2004, funds brain injury research projects in New Jersey.

❖ ***Since 2007, the New Jersey Commission on Brain Injury Research (NJCBI) has awarded over \$13 million to individual scientists at various academic and research institutions, and approved 29 separate scientific research projects.***

- *Since 2007, seven NJCBI scientific research projects have been completed.*
- *Progress made by NJCBI researchers has been presented in abstracts, scientific conferences, symposia, and meetings.*
- *NJCBI programs have enabled wider scientific interaction and research collaborations, many with out-of-state researchers.*
- *Success in achieving NJCBI funding has resulted in academic and career advancement for New Jersey researchers.*

❖ ***NJCBI offered four grant programs in Fiscal Year 2011:***

- *Individual Research Grants*
- *Programmatic Multi-Investigator Research Grants*
- *Pilot Research Grants*
- *Postdoctoral and Graduate Fellowship Grants*

❖ ***NJCBI 2011 Achievements:***

- *Thirty-two applications requesting \$12.2 million were submitted.*
- *Six awards were made in 2011 totaling \$3.1 million.*  
*Two Individual Research grants totaling \$918,917, two Pilot Research grants totaling \$359,994, one Multi-Investigator Research grant totaling \$1,639,522, and one Fellowship grant totaling \$209,808 were approved.*

### **NJ Brain Injury Registry:**

- ❖ *NJCBI supports a central registry of brain injured persons in New Jersey in cooperation with the New Jersey Department of Health and Senior Services Center for Health Statistics.*
- ❖ *The database provides a resource for research, evaluation, and information on brain injuries.*
- ❖ *All Level 1 trauma centers now collect and submit comprehensive data electronically and soon an on-line system will allow all New Jersey acute care facilities to participate.*

## INTRODUCTION

### N.J.S.A. 52:9ee-1, et seq

The Brain Injury Research Act created the New Jersey Commission on Brain Injury Research and the New Jersey Brain Injury Research Fund to support its activities. It resulted from the collaborative efforts of people with brain injuries and their families, clinicians, scientists, public officials, and representatives of research, rehabilitation, and non-profit organizations.

### Facts & Figures

- Approximately 175,000 New Jersey residents suffer from traumatic injuries that damage the brain.
- Approximately 12,000\* new injuries occur each year that require inpatient or outpatient treatment.
- The economic consequences of the resulting physical disabilities are enormous. Medical and long term care costs to the nation's economy are estimated to be \$48 billion dollars annually.
- The personal and emotional toll on individuals and families with brain injuries is incalculable.

\*Based on estimates from the Centers for Disease Control and the New Jersey Department of Health and Senior Services  
Center for Health Statistics

### NEW JERSEY'S COMMITMENT TO BRAIN INJURY RESEARCH

The Brain Injury Research Act anticipates that brain injury research will lead to effective treatments and cures for brain injuries and relieve other consequences of brain injury.

New Jersey is a leader in supporting the quest to develop effective interventions and cures for the disabilities associated with traumatic brain injury.

The New Jersey Commission on Brain Injury Research provides research grant programs for both established scientists and younger researchers committed to the goals of brain injury research. The commission also supports the New Jersey Department of Health and Senior Services, Center for Health Statistics in establishing a database of all brain injured patients in New Jersey.

Now in its seventh year of operation, the NJCBIR has funded 29 scientific research projects and supported individual scientists at institutions around the state. Its impartial and scientifically rigorous application and review process has helped make the commission vital to New Jersey's best researchers in their pursuit of answers and cures.

## **NEW JERSEY COMMISSION ON BRAIN INJURY RESEARCH**

Created as a semi-independent public body, the New Jersey Commission on Brain Injury Research is "...allocated in, but not of..." the New Jersey Department of Health and Senior Services. It is subject to all the administrative rules and procedures of the Department, but is not a part of the Department, and is not included in its budget.

The NJCBIR establishes and oversees the operations of the grants process and other activities that are implemented by its administrative staff. Eleven uncompensated commissioners are appointed by the Governor with the advice and consent of the Senate, and serve for three-year terms.

Two commission seats are designated by statute to represent the state's major academic research institutions and stakeholders. Public members provide a diversity of backgrounds and interests united by a shared commitment to the cause of brain injury research. The Commission will always have one or more individuals from each of the following institutions and categories:

*The Commissioner of the NJDHSS, or designee*

*University of Medicine and Dentistry of New Jersey*

*Rutgers, The State University of New Jersey*

*Eight Public Members – at least one licensed physician, a brain injured individual, a parent of a brain injured individual, one public member appointed by the President of the Senate, one public member appointed by the Speaker of the Assembly*

All public members shall be residents of the state, or otherwise associated with the state, and shall be known for their knowledge, competence, experience or interest in brain injury medical research. Any qualified person wishing to be considered for appointment may submit his or her name to the Governor's Office of Appointments.

The NJCBIR holds public meetings at least four times a year. Members are recused from discussing or voting on matters in which they may have a potential conflict. A Chair and Vice-Chairperson are elected annually and preside over all formal proceedings.

The NJCBIR also maintains standing committees that meet and provide an informal structure to discuss issues on an *ad hoc* basis in advance of presenting them to the full commission.

## **ADMINISTRATION**

The New Jersey Commission on Brain Injury Research's administrative office provides the vital linkages and machinery that implement its programs and ensure the integrity of its operations. The office staff manages the day-to-day operations, including program



administration, interaction with applicants and grantees, contract administration, budgeting and financial matters, record-keeping and reporting.

The office staff schedule and facilitate all NJCBIR activities, manages the scientific merit review process, negotiates with outside vendors, and maintains the necessary relationships within state government.

### **NEW JERSEY BRAIN INJURY RESEARCH FUND**

The work of the New Jersey Commission on Brain Injury Research is supported entirely by a statutory one dollar surcharge on all traffic and motor vehicle fines or penalties. Similar sources of funding have been implemented successfully by several other jurisdictions – vehicular accidents are a significant cause of brain injuries. Revenue is collected by the State Treasurer for deposit into the New Jersey Brain Injury Research Fund. The NJCBIR funds all its grant programs and other activities entirely from this dedicated source. No part of the NJCBIR's operating budget is paid for out of New Jersey's general tax revenue.

### **MISSION AND GOALS**

The New Jersey Commission on Brain Injury Research's mission is to encourage and promote innovative brain injury research projects in New Jersey through the funding of approved research projects at qualifying research institutions in the State of New Jersey.

The NJCBIR supports meritorious research projects that advance the understanding of traumatic brain injuries. The NJCBIR is committed to accelerating research to develop effective interventions and cures for the disabilities associated with traumatic brain injury.

Simply stated, the commission's goals are:

- To advance and accelerate brain injury research,
- To promote collaboration among brain injury researchers in New Jersey,
- To promote the development of brain injury researchers and their research capabilities in order that they may seek federal and other external funding, and
- To encourage innovative research.

The creation of precedent setting guidelines for the groundbreaking commission research agenda and the cutting edge and innovative science needed to accomplish commission goals is a tedious process that often requires unique and challenging solutions. Cutting edge and innovative science is urgently needed, and the task of research is more demanding than ever. Through its grants programs, the commission implements the commitment of the State of New Jersey to the international quest for treatments and cures for brain injuries and their effects.

The State of New Jersey benefits in savings on medical and support costs, enhancements to and further development of the state's public and private biomedical sectors, establishes leadership in the field of brain injury treatments and cures, and improves the lives of those living with brain injuries and their effects.

## **OBJECTIVES**

The New Jersey Commission on Brain Injury Research is committed to accelerating research to develop effective interventions and cures for the disabilities associated with traumatic brain injury. Its primary objectives are:

- *To advance the field of brain cell repair and regeneration in the New Jersey research community by encouraging established scientists to apply their expertise to the brain.*
- *To foster collaborative, interdisciplinary approaches to brain injury research.*
- *To develop models of neural repair and regeneration that establishes a basis for additional scientific investigation.*
- *To develop models of neural repair and regeneration after brain injury that can lead to clinical interventions.*
- *To stimulate epidemiological analysis of the New Jersey Traumatic Brain Injury Registry data in order to improve injury prevention, develop treatment guidelines and enhance patient outcomes.*
- *To promote dissemination of the research findings generated by those scientists supported by the NJCBIR.*
- *To develop and evaluate clinical interventions that lead to improved treatment and function after traumatic brain injury.*

## **RESEARCH FUNDING PRIORITIES**

The NJCBIR Research Guidelines set forth the commission's scientific agenda, research criteria and areas of particular interest. They offer applicants detailed guidance and instruction on funding criteria and policies. The full text appears on the NJCBIR website: [www.nj.gov/health/njcbir](http://www.nj.gov/health/njcbir).

The NJCBIR currently offers an array of grant programs including Individual Research Grants, Fellowships, Pilot Research Grants and Programmatic Multi-Investigator Research Grants. Each of these programs is designed to support and encourage brain injury research in New Jersey in a unique way.

The NJCBIR will fund research activities that hold promise of developing effective interventions and cures for the disabilities associated with traumatic brain injury. The

areas of research listed below highlight the focus of current NJCBIR emphasis and funding:

**Basic Studies**

- Studying strategies to promote neuronal growth and survival, encourage the formation of synapses, enhance appropriate myelination, restore axonal conduction, replace or regenerate injured brain cells, or otherwise improve function after brain injury.
- Evaluating efficacy of drugs and other interventions that prevent or reduce secondary neuronal injury or providing insight into the mechanisms causing progressive damage.
- Defining anatomical characteristics of brain injury in well-defined animal models and in the human brain, specifically documenting the cellular systems vulnerable to injury and the functional losses which occur as a result thereof.
- Translational research on the mechanism and interventions that promote recovery of function after brain injury.

**Clinical Studies**

- Demonstrating the efficacy of innovative rehabilitation strategies based on basic research that offer promise to promote recovery of function (e.g., physiologic function, cognitive impairment, activity limitation, social participation, quality of life) through their clinical application.
- Demonstrating the putative mechanisms of action of rehabilitation intervention based on changes in brain activity (e.g., functional imaging), neurocognitive function, or psychosocial factors (e.g., resilience).
- Comparative effectiveness research to evaluate the relative risks and benefits of alternative rehabilitation interventions intended to promote recovery of function.
- Epidemiological studies of the New Jersey Traumatic Brain Injury Registry data, to identify contributions of demographic and risk factors, patient transport, rehabilitation and physical therapy, and medical/surgical interventions to population treatment and outcomes.

## **THE NJCBIR APPLICATION AND REVIEW PROCESS**

The NJCBIR grants review process was designed to emulate National Institutes of Health standards and procedures to provide an impartial and rigorous review. This effort has been largely successful and has earned respect from grantees and applicants.

The NJCBIR application process is now entirely electronic utilizing the *New Jersey System for Administering Grants Electronically* (NJSAGE) grants management system, and is accessible through the NJCBIR website.

The on-line process ensures broad access, convenience and flexibility, and greatly reduces administrative workloads for applicants, the NJCBIR office, and the Scientific Merit Review Panel.

The NJCBIR administrative staff reviews all applications for completeness and accuracy and assists applicants in correcting errors or omissions.

Relevance to the overall goals of the NJCBIR is assessed by an expert panel who also recommend reviewers for each grant from a pool of over 100 highly qualified scientists.

Each application is reviewed and scored independently by two or three peers prior to discussion at the Scientific Merit Review Panel meeting; “triaged” applications are not discussed or scored.

The remaining applications are fully discussed and scored by the entire panel and given a composite score. The panel also suggests a cut-off point for funding. The scores, comments and funding recommendations are delivered to the NJCBIR for final consideration and vote.

The NJCBIR makes the final decision whether to fund each application by majority vote. The commissioners pay close attention to the results of the independent scientific merit review, but retain discretion to take other factors into consideration in judging the merit of each application. Any application that was scored and not funded may be resubmitted with appropriate changes in the next grant cycle.

All applicants, regardless of the decision, receive “blinded” reviewer comments. These are often valuable and may help a researcher rethink a project or reframe a future application.

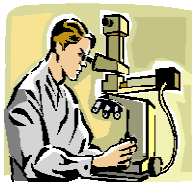
## **CURRENT GRANT PROGRAMS**

New Jersey Commission on Brain Injury Research grant programs are designed to provide opportunities attractive to a wide range of researchers. NJCBIR awards are intended to promote collaboration among brain injury researchers in New Jersey and encourage innovative research, not to provide long-term support. It is expected that this initial support will lead investigators to acquire necessary levels of preliminary data so that they may compete successfully for federal grant support.

The Individual Research grant is designed to fund senior independent researchers, while the Fellowship grant offers encouragement to graduate students and post-doctoral researchers, the Multi-Investigator grant supports collaborative research from at least three investigators from different laboratories, and the Pilot Research grant enables researchers to pursue a new direction in brain injury research or encourages new investigators who want to gather preliminary data for larger research projects.

Inter-institutional and/or inter-state collaboration is strongly encouraged. Complete details on all NJCBIR programs are available on-line.

## Individual Research Grants



*Individual Research Grants support senior scientists to explore meritorious novel scientific and clinical ideas.*

*Up to \$540,000 for up to three years (\$180,000 per year)*

*Key goal is to enable established researchers to test and develop pilot data needed for future funding.*

## Fellowship Grants

*Postdoctoral and Graduate Student Fellowships engage promising young investigators in brain injury research.*

*All fellowships include an annual stipend, research allowance and travel budget.*

*Post-doctoral Fellowships are three year awards based on years of relevant research experience since obtaining a doctoral degree and range from \$64,550 to \$83,376 a year.*

*Graduate Fellowships are three year awards with a total award of \$33,500 per year.*



## Pilot Research Grants



*Enable independent investigators to pursue a new direction in brain injury research, or new investigators who want to gather preliminary data for larger research projects.*

*Up to \$180,000 for a two year award (\$90,000 per year)*

## Programmatic Multi-Investigator Research Grants

*Support collaborative research from at least three investigators from different laboratories.*

*Preference is given to proposals that demonstrate complementary approaches to addressing a research question through multi-disciplinary investigations.*

*Collaborations are encouraged among independent laboratories within the same institution or among laboratories from different institutions.*

*Up to \$720,000 per year for up to three years, maximum of up to \$2.1 million.*



## **2007- 2011 NJCBIR SUMMARY AND PERFORMANCE RECORD**

Since 2007, the New Jersey Commission on Brain Injury Research has funded 29 separate scientific research projects to scientists at New Jersey academic and research institutions. These awards represent an investment in brain injury research of \$13 million.

The NJCBIR receives approximately 35 applications annually, approving six or more new awards totaling between \$2.5 and \$3.5 million.

As the NJCBIR continues to invest in brain injury research, the number of New Jersey researchers interested in the field is growing.

## **NEW JERSEY QUALIFIED RESEARCH INSTITUTIONS**

Under the Brain Injury Research Act, New Jersey Commission on Brain Injury Research funds may only go to researchers affiliated with “New Jersey Qualified Research Institutions”. The following organizations have been designated by the NJCBIR. They provide a continuing source of interest and applications for NJCBIR funds.

University of Medicine & Dentistry of NJ  
Rutgers, State University of New Jersey  
Kessler Medical Rehabilitation Center  
Stevens Institute for Technology  
Princeton University  
Cooper University Hospital Research Institute  
Atlantic Health Care System Neuro. Institute  
St. Barnabas Medical Center  
The Center for Neurological & Neurodevelopment  
Health LLC, Clinical Research Center of NJ, &  
The Center for Neurological & Neurodevelopment  
Health II, Inc. – NeurAbilities

Coriell Institute for Medical Research  
New Jersey Institute of Technology  
Hackensack University Medical Center  
International Brain Research Foundation  
Englewood Hospital Research  
JFK Neuroscience Institute  
Edge Therapeutics, Inc.  
Rowan University  
Morristown Medical Hospital &  
Medical Center

The NJCBIR is committed to broadening its portfolio of institutional grantees and increasing the size and diversity of its funding activities. Through outreach activities, the NJCBIR encourages participation by all research organizations with an interest in brain injury research.

## **2011 NJCBIR YEAR IN REVIEW**

The New Jersey Commission on Brain Injury Research developed policy guidelines to accommodate what promises to be an exciting research agenda for the New Jersey science community. The NJCBIR is providing the opportunity for New Jersey to become a leader in traumatic brain injury research, as our program was the first of its kind in the nation.

As we move forward it is our belief that the NJCBIR will set the example for other states to follow as the search for treatments and cures begins to play a major role in medical research initiatives. Indeed, our early recognition of unmet needs in traumatic brain injury research is paving the way to develop methods of regeneration and repair.

NJCBIR grant programs are designed to provide opportunities attractive to a wide range of researchers. NJCBIR grantees and grantee institutions have capitalized on the opportunities afforded by the availability of commission funding through advancement of individual careers, increased institutional investment, and applying for additional outside funding.

The NJCBIR has been a major factor in fostering this interest and continued involvement in brain injury research within the State of New Jersey.

### **2011 Applications**

2011 saw the New Jersey Commission on Brain Injury Research in its seventh year of operation and its fifth cycle of grants.

In 2011, four types of grant programs were offered. They included Individual Research grants, Fellowship grants, Programmatic Multi-Investigator Research grants, and Pilot Research grants. The NJCBIR allocated up to \$8 million for brain injury research projects, but it is not required to award any, or all of that amount.

A total of 32 grant applications were received. Six grants were awarded totaling \$3,128,241. The grant awards included two Individual Research grants, one Fellowship grant, two Pilot Research grants, and one Multi-Investigator Research grant.

### **2011 Outreach and Development Efforts**

The NJCBIR maintains an ongoing interest in expanding brain injury research in New Jersey. Direct contacts, attendance at events and meetings, plus website and publication resources are some of the ways used to publicize NJCBIR grant opportunities throughout the state.



## **Publication of Grant Programs**

Official Notices of Grant Availability advise interested parties of the New Jersey Commission on Brain Injury Research grant programs. These notices are published annually on the commission's website and in the New Jersey Department of Health and Senior Services *Directory of Grant Programs*.

### **2011 Grant Cycle Information**

**Grant Application Deadline: October 8, 2010**

**Award Notification Date: April 29, 2011**

#### **Available Grant Programs:**

- **Individual Research Grants**
- **Programmatic Multi-Investigator Research Grants**
- **Fellowship Grants**
- **Pilot Research Grants**

## **GRANTS PROGRAM FOR 2012**

For Fiscal Year 2012, the New Jersey Commission on Brain Injury Research allocated up to \$6.5 million dollars for brain injury research projects.

### **2012 Grant Cycle Information**

**Grant Application Deadline: October 3, 2011**

**Award Notification Date: April 30, 2012**

#### **Available Grant Programs:**

- **Individual Research Grants**
- **Programmatic Multi-Investigator Research Grants**
- **Fellowship Grants**
- **Pilot Research Grants**

## **NEW JERSEY BRAIN INJURY REGISTRY**

The "Brain Injury Research Act" mandated the establishment of a central registry of people who sustain brain injuries throughout the state. This registry will provide a database indicating the incidence and prevalence of brain injuries and will serve as a resource for research, evaluation, and information on brain injuries.

The NJCBIR maintains a Memorandum of Agreement with the New Jersey Department of Health and Senior Services' Center for Health Statistics to provide for the collection and analysis of brain injury data. The Registry, directed by the Center for Health Statistics, collects brain injury data from New Jersey hospitals, and provides analysis of that data for health professionals.

## New Jersey Traumatic Brain Injury Surveillance System

### Hospitalizations for TBI by Gender, New Jersey, 2000 - 2010

Year	Males		Females		Total	
	N	Rate	N	Rate	N	Rate
2000	4,934	126.6	3,070	65.3	8,004	94.8
2001	4,733	120.2	2,884	61.2	7,617	89.7
2002	4,783	120.9	2,904	60.8	7,687	89.5
2003	5,006	125.6	3,173	64.9	8,179	94.3
2004	4,986	125.0	3,219	65.1	8,205	94.0
2005	5,109	127.0	3,256	65.7	8,365	95.4
2006	5,510	135.9	3,524	70.5	9,034	102.5
2007	5,526	135.9	3,659	72.2	9,185	103.2
2008	5,483	133.9	3,710	72.4	9,193	102.3
2009	5,732	139.0	3,977	76.0	9,709	106.5
2010	5,765	137.6	3,942	74.3	9,707	104.9

Rates are age-adjusted using the 2000 US Standard Population, calculated per 100,000 population. Bridged-race estimates are used in calculations. Hospitalization data are from the New Jersey Central Nervous System Injury Surveillance, 2011.

### Age-Adjusted Traumatic Brain Injury Incidence Rates, New Jersey, 2007 - 2008

	2007		2008		Rate Difference 2007-2008
	N	Rate <sup>1</sup>	N	Rate	
<b>All Traumatic Brain Injuries</b>	9,663	108.6	9,675	107.7	-0.83%
<b>Mechanism of Injury</b>					
Motor Vehicle (Traffic)	2,400	28.0	2,279	26.5	-5.36%
Fall	4,381	47.3	4,637	49.7	5.07%
Assault	855	10.1	843	10.0	-0.99%
Self-injury	54	0.6	44	0.5	-16.67%
<b>Gender</b>					
Male	5,926	145.6	5,870	143.1	-1.72%
Female	3,737	74.0	3,805	74.4	0.54%
<b>Race<sup>2</sup></b>					
White	6,148	99.4	6,311	101.8	2.41%
Black/African American	1,341	119.5	1,287	114.7	-4.02%
Hispanic	1,324	110.1	1,204	100.0	-9.17%
<b>Fatality<sup>3</sup></b>					
Fatal	1,083	11.21%	1,078	11.14%	-0.59%
Non-fatal	8,580	88.79%	8,597	88.86%	0.07%

<sup>1</sup> Rates are age-adjusted using the 2000 US Standard Population, calculated per 100,000. Bridged-race estimates are used in calculations.

<sup>2</sup> Race/ethnicity information is missing for 601 (6.2%) of TBI incidents.

<sup>3</sup> "Fatal TBI" includes out of hospital deaths and inpatient deaths with TBI listed in the multiple cause of death fields, and hospitalized deaths of patients with "severe" TBI who have no TBI listed specifically in the cause of death fields. "Non-fatal TBI" are inpatients who may have died, but had only mild or moderate severity TBI, or inpatients who were discharged from the hospital "alive".

Incidence data are from the New Jersey Central Nervous System Injury Surveillance, 2011, and includes all New Jersey resident hospitalizations in New Jersey hospitals and deaths of New Jersey residents regardless of state of death.

## FINANCIAL STATEMENT

The activities and programs of the New Jersey Commission on Brain Injury Research are supported by the New Jersey Brain Injury Research Fund as established by the Brain Injury Research Act.

A \$1.00 surcharge was added to the amount of each fine and penalty imposed and collected under authority of any law for any violation of the provisions of Title 39 or any other motor vehicle or traffic violation in the State of New Jersey. This revenue surcharge is collected and forwarded to the State Treasurer and deposited into the New Jersey Brain Injury Research Fund. Interest earned on the money collected, through the Division of Investments, New Jersey State Department of Treasury, is credited to the Fund.

The NJCBIR is committed to granting a substantial majority of the Fund each year to support as much meritorious research as possible, while retaining the ability to meet expenses.

**State Fiscal Year 2011  
Fund Balance Statement:**

	<b>SFY 2011 Projected</b>	<b>SFY 2011 Actual</b>	<b>SFY 2012 Projected</b>
<b>Opening Fund Balance: (July 1)</b>	\$5,085,876	\$5,085,876	\$5,289,270
<b>Revenues</b>			
Assessments <sup>1</sup>	\$3,600,000	\$3,975,039	\$3,600,000
Investments Earnings - Interest <sup>2</sup>	\$75,000	\$40,402	\$35,000
<b>Total Revenue:</b>	\$3,675,000	\$4,015,441	\$3,635,000
<b>Total Funds Available:</b>	\$8,760,876	\$9,101,317	\$8,924,270
<b>Disbursements and Expenses</b>			
Spending Plan Reduction	-0-	-0-	-0-
Disbursements to Grantees	\$8,040,000	\$3,683,834	\$6,532,500
<b>Total Disbursements:</b>	\$8,040,000	\$3,683,834	\$6,532,500
<b>Expenses</b>			
Administrative & Office expense	\$224,650	\$102,206	\$187,478
Professional Review Panel	\$45,000	\$24,342	\$60,000
NJCSCR Registry	\$20,000	\$1,665	\$50,000
<b>Total Expenses:</b>	\$289,650	\$128,213	\$297,478
<b>Total Disbursements and Expenses:</b>	\$8,329,650	\$3,812,047	\$6,829,978
<b>Closing Fund Balance: (June 30)</b>	\$431,226	\$5,289,270	\$2,094,292

<sup>1</sup>Net revenue variance

<sup>2</sup>Funds plus interest deposited annually in January

## 2011 RESEARCH GRANT AWARDS

### **INDIVIDUAL RESEARCH GRANT RECIPIENTS:**

**Haesun Kim, Ph.D.**

Rutgers, The State University of New Jersey

Grant Award: \$540,000

Project Title: *The Effects of Diffused Axonal Injury on Myelin and Myelinated Axons*

**Denise Krch, Ph.D.**

Kessler Foundation

Grant Award: \$378,917

Project Title: *Cognitive Reserve in Traumatic Brain Injury*

### **MULTI-INVESTIGATOR RESEARCH GRANT RECIPIENT:**

**Bryan Pfister, Ph.D.**

New Jersey Institute of Technology

Grant Award: \$1,639,522

Overall Project Title: *Investigation of Physiological Dysfunction from Repetitive Mild Head Injury*

### **FELLOWSHIP RESEARCH GRANT RECIPIENT:**

**Akshay Gupta, M.D., Ph.D.**

University of Medicine and Dentistry of New Jersey

New Jersey Medical School

Grant Award: \$209,808

Project Title: *Role of Semilunar Granule Cells in Post-Traumatic Hyperexcitability*

### **PILOT RESEARCH GRANT RECIPIENTS:**

**Mark Pinsk, Ph.D.**

Princeton University

Grant Award: \$179,994

Project Title: *Cortical Lesion Effects on White Matter Connectivity: DTI of the Macaque*

**Chi Kwan Tsang, Ph.D.**

University of Medicine & Dentistry of New Jersey

Robert Wood Johnson Medical School

Grant Award: \$180,000

Project Title: *Regulation of Neuronal Regeneration and Survival by mTOR*

