SPINAL CORD INJURY RESEARCH BOARD
Regular Business Meeting
September 26, 2017
11:00 AM to 5:00 PM
MINUTES

Locations
NYS OSC, 59 Maiden Lane, 29th Floor, Conference Room B, New York, NY
NYS DOH Wadsworth Center, Biggs Laboratory, Sturman Conference Room, Albany, NY

SCIRB Members Present
Donald Faber, Ph.D.
Michael E. Goldberg, M.D.
Bernice Grafstein, Ph.D.
Keith Gurgui
Nancy Lieberman
Lorne Mendell, Ph.D.
Gary D. Paige, M.D., Ph.D.
Fraser Sim, Ph.D.

SCIRB Members Absent
Thomas N. Bryce, M.D.
Anthony Caggiano, M.D., Ph.D.
Adam Stein, M.D.

NYS DOH Staff Present
Teresa Ascienzo
Charles Burns
Victoria Derbyshire, Ph.D.
Andrea Garavelli
Joan K. Harris, Esq.
Kerri Kluetzman, Ph.D.
Matthew Kohn, Ph.D.
Farrah O’Brien
Brian Rourke
Jeannine Tusch
Carlene Van Patten

Guests
Kristen Murphy
Harriet Katz

Call to Order and Opening Remarks of the Chair
The meeting was called to order at 11:10 a.m. with a welcome by Chair, Lorne Mendell, Ph.D. followed by introductions of Spinal Cord Injury Research Board (SCIRB) members and the New York State Department of Health (DOH) staff.

Consideration of January 18, 2017 Meeting Minutes
Dr. Mendell asked the SCIRB to consider Exhibit 1, the minutes from the January 18, 2017 meeting.

ACTION
Donald Faber, Ph.D. made a motion to approve the minutes as presented. Gary D. Paige, M.D., Ph.D. seconded. A roll call vote was taken and the minutes were unanimously approved (7-0).

Michael E. Goldberg, M.D. joined the meeting.
Consideration of Applications for Funding

1. Translational Research Projects (TRP) in Spinal Cord Injury (Round 2) Request for Applications (RFA)

Andrea Garavelli provided an overview of the applications received in response to this RFA; the procurement timeline is bulleted below:

- The RFA was approved by the SCIRB in September 2016
- The RFA was issued on January 11, 2017
- Three (3) applications were submitted by the April 28, 2017 due date
- Independent peer review of the applications was held on July 17, 2017
- The RFA made $6 million available to fund approximately two (2) awards
- The multi-year contracts are expected to begin on January 1, 2018 for a multi-year term of up to five (5) years

2. Projects to Accelerate Research Translation (PART) and Innovative, Developmental or Exploratory Activities (IDEA) in Spinal Cord Injury Research (Round 2) RFA

Ms. Garavelli proceeded by providing an overview of the applications received in response to this RFA; the procurement timeline is bulleted below:

- The RFA was approved by the SCIRB in September 2016
- The RFA was issued on December 27, 2016
- Thirty-five (35) applications were submitted by the March 3, 2017 due date
- Independent peer review of the applications was held in May 2017
- The RFA made $5 million available to fund PART and/or IDEA awards
- The multi-year contracts are expected to begin on January 1, 2018 for a term of up to three (3) years for PART and two (2) years for IDEA awards

Ms. Garavelli noted that applications were scored on a scale of 1.0-9.0 and scoring ties were resolved using the score for “Research Plan” among those applications involved in the ties. She stated the SCIRB could “approve, but not fund” other meritorious applications, which could become recommended awards for funding, should there be any declinations.

Dr. Paige motioned to move into Executive Session and Bernice Grafstein, Ph.D. seconded. The SCIRB unanimously voted to adjourn into Executive Session for the purpose of considering applications for research funding. Members of the public and non-essential staff were asked to leave the room.

After discussing the TRP, PART and IDEA applications, the SCIRB reconvened in Public Session.

SCIRB Recommendations

1. TRP in Spinal Cord Injury (Round 2)

Dr. Mendell began the process of considering the applications. Details are provided on page 5.
ACTION
Nancy Lieberman made a motion to recommend to the Commissioner of Health that these two applications be recommended for funding. Dr. Faber seconded. A roll call vote was taken and the motion was unanimously approved (8-0).

In summary, the SCIRB recommended funding of $2.8 million in the form of two (2) TRP awards. Resulting contracts are scheduled to begin on February 1, 2018.

2. PART/IDEA in Spinal Cord Injury Research (Round 2)

Dr. Mendell began the process of considering the applications. Details are provided on pages 6-9.

ACTION
Dr. Paige made a motion to recommend to the Commissioner that these PART and IDEA applications be funded using the peer review results in score order as the basis for this decision. Dr. Grafstein seconded. A roll call vote was taken and the motion was unanimously approved (8-0).

In summary, the SCIRB recommended funding of $6.5 million in the form of 14 PART/IDEA awards. Resulting contracts are scheduled to begin on February 1, 2018.

Program Update
Carlene Van Patten provided a review of Exhibit 4a, current and future programming of spinal cord injury (SCI) research funding. A summary of these contracts/procurements is listed below.

- **Collaborations to Accelerate Research Translation (CART) and IDEA in SCI:** Nine (9) multi-year contracts which totaled $5.7 million have completed their third reporting period. These six (6) IDEA contracts conclude October 31, 2017 and three (3) CART contracts conclude October 31, 2018.

- **TRP in SCI (Round 1):** Two (2) five-year contracts which totaled $8.7 million have completed their second reporting period. These two (2) contracts conclude August 14, 2021.

- **PART and IDEA in SCI (Round 1):** Eleven multi-year contracts which totaled $6.2 million have completed their first reporting period. These seven (7) IDEA contracts conclude December 31, 2018 and four (4) PART contracts conclude December 31, 2019.

- **Individual Predoctoral and Postdoctoral Fellowships in SCI (Round 2):** Nine (9) multi-year contracts which totaled $1.5 million began on September 1, 2017. This included two (2) pre- and seven (7) postdoctoral fellowships.

- **Individual Predoctoral and Postdoctoral Fellowships in SCI (Round 3) RFA:** This RFA was released on August 7, 2017 and $1.5 million will be available for approximately six (6) training awards. Applications are due by 4pm on October 5, 2017 in the NYS Grants Gateway. The SCIRB will consider applications received in response to this RFA at a future SCIRB meeting to be planned in the winter of 2018.

- **PART and IDEA in SCI (Round 3) RFA:** This RFA is planned for release in early 2018 and approximately $5 million will be available to support PART/IDEA awards. Contracts are expected to begin in May 2019. Keeping this procurement timeline in mind, Dr. Paige
recommended to provide a period of eight (8) weeks from the RFA release date for prospective applicants to prepare and submit their applications.

Future Meetings
At its next meeting in the winter of 2018, the SCIRB will consider Individual Predoctoral and Postdoctoral Fellowships in SCI (Round 3) applications for funding.

NYS Spinal Cord Injury Research Symposium
Dr. Mendell provided an update on the NYS Spinal Cord Injury Research Symposium. He said it is being planned for the fall of 2018 and the location will likely be at The Rockefeller University. Dr. Mendell said he is working with Dr. Grafstein, Dr. Faber and Ms. Garavelli and they have issued a survey to the NYS spinal cord injury research contractors to receive their input.

Progress Reports
Ms. Garavelli explained that the NYS spinal cord injury research contractors are required to submit progress reports every six months and a final progress report is submitted at the end of the contract term. She distributed a copy of the progress report template and noted that the contractors’ scientific progress towards specific aims, future directions and impact will be reported in the 2017 SCIRB Annual Report.

Board membership
Dr. Mendell requested for the SCIRB members to send scientist/advocate recommendations, preferably from the Albany/Syracuse region, to him and Victoria Derbyshire, Ph.D. to fill SCIRB vacancies.

Adjournment
Dr. Grafstein motioned to adjourn the meeting and Ms. Lieberman seconded. A roll call vote was taken and the meeting was adjourned at 2:30 p.m.
Translational Research Projects (TRP) in Spinal Cord Injury (Round 2): A total of $2.8 million in the form of 2 TRP awards were recommended. Both projects are four (4) year awards.

<table>
<thead>
<tr>
<th>Research Category</th>
<th>Organization(s)</th>
<th>Project Title</th>
<th>Investigator(s)</th>
<th>Recommended Funding</th>
</tr>
</thead>
</table>
| Rehabilitation            | **Applicant:** Health Research Inc.   | A Spinal Reflex Operant Conditioning System Suitable for Clinical Translation | PI: Jonathan Wolpaw, M.D.  
**Co-PI:** Gerwin Schalk, Ph.D.  
**Subapplicant Staff:** Aiko Thompson, Ph.D. | $ 1,623,620 |
| Cellular Regeneration &   | **Applicant:** University of Rochester| Pharmacological Treatment of Acute Spinal Cord Injury                      | PI: Mark Noble, Ph.D.  
**Co-PI:** Christoph Proschel, Ph.D. | $ 1,203,455 |
Projects to Accelerate Research Translation (PART) and Innovative, Developmental or Exploratory Activities (IDEA) in Spinal Cord Injury (Round 2): A total of $6.5 million, 3 PART and 11 IDEA awards were recommended. These projects are three (3) and two (2) year awards, respectively.

<table>
<thead>
<tr>
<th>Funding Mechanism/Research Category</th>
<th>Organization(s)</th>
<th>Project Title</th>
<th>Investigator(s)</th>
<th>Recommended Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>PART/Cellular Regeneration &amp; Therapeutics</td>
<td><strong>Applicant:</strong> University of Rochester</td>
<td>Acute Treatment with 4-aminopyridine Promotes Extensive Recovery from Traumatic SCI</td>
<td>PI: Mark Noble, Ph.D.</td>
<td>$990,000</td>
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<tr>
<td>IDEA/Rehabilitation</td>
<td><strong>Applicant:</strong> Bronx Veterans Medical Research Foundation</td>
<td>Dose Effect of Norepinephrine Precursor (Droxidopa) on Blood Pressure and Cerebral Blood Flow Velocity in Hypotensive Individuals with Spinal Cord Injury</td>
<td>PI: Jill Wecht, Ed.D.</td>
<td>$344,887</td>
</tr>
<tr>
<td>IDEA/Cellular Regeneration &amp; Therapeutics</td>
<td><strong>Applicant:</strong> Regenerative Research Foundation <strong>Subapplicant:</strong> The Children's Hospital Corporation</td>
<td>The Role of Zinc in Axon Regeneration Following Spinal Cord Injury</td>
<td>PI: Sally Temple, Ph.D. <strong>Subapplicant Staff:</strong> Larry Benowitz, Ph.D.</td>
<td>$335,000</td>
</tr>
<tr>
<td>IDEA/Cellular Regeneration &amp; Therapeutics</td>
<td><strong>Applicant:</strong> Winifred Masterson Burke Medical Research Institute <strong>Subapplicant:</strong> University of Michigan</td>
<td>Immune-mediated Nervous System Repair</td>
<td>PI: Edmund Hollis, Ph.D. <strong>Subapplicant Staff:</strong> Roman Giger, Ph.D.</td>
<td>$360,000</td>
</tr>
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<tr>
<td>IDEA/Cellular Regeneration &amp; Therapeutics</td>
<td><strong>Applicant:</strong> Winifred Masterson Burke Medical Research Institute</td>
<td>Investigating Axonal mRNA Translation in CST Axon Sprouting and Regeneration</td>
<td>PI: Jian Zhong, Ph.D.</td>
<td>$360,000</td>
</tr>
<tr>
<td>IDEA/Cellular Regeneration &amp; Therapeutics</td>
<td><strong>Applicant:</strong> Winifred Masterson Burke Medical Research Institute</td>
<td>Molecular Mechanisms Regulating Cell Adhesion in Reactive Astrocytes and Glial Scar Formation Following Spinal Cord Injury</td>
<td>PI: John Cave, Ph.D.</td>
<td>$360,000</td>
</tr>
<tr>
<td>IDEA/Rehabilitation</td>
<td><strong>Applicant:</strong> Winifred Masterson Burke Medical Research Institute</td>
<td>Combining 4-AP with Motor Training to Promote Forelimb Motor Recovery in Rats with Pyramidal Tract Injury</td>
<td>PI: Jason Carmel, M.D., Ph.D.</td>
<td>$359,241</td>
</tr>
<tr>
<td>IDEA/Cellular Regeneration &amp; Therapeutics</td>
<td><strong>Applicant:</strong> Icahn School of Medicine at Mount Sinai</td>
<td>Enhancing Axon Regenerative Capacity Through Epigenetic Regulation of DNA Methylation Dynamics</td>
<td>PI: Hongyan Jenny Zou, M.D., Ph.D.</td>
<td>$360,000</td>
</tr>
<tr>
<td>IDEA/Rehabilitation</td>
<td><strong>Applicant:</strong> The Research Foundation of CUNY obo City College of New York <strong>Subapplicant:</strong> The Trustees of Columbia University in the City of New York</td>
<td>Robotic Rehabilitation to Promote Recovery of Forelimb Function after Cervical SCI in Rats</td>
<td>PI: John Martin, Ph.D. <strong>Subapplicant Staff:</strong> Sunil Agrawal, Ph.D.</td>
<td>$332,738</td>
</tr>
<tr>
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| IDEA/Cellular Regeneration & Therapeutics | **Applicant:** The Feinstein Institute for Medical Research  
**Subapplicant:** Bronx Veterans Medical Research Foundation | Impact of Walking on the Immune System of Persons with Chronic Spinal Cord Injury | PI: Ona Bloom, Ph.D.  
**Subapplicant Staff:** Ann Spungen, Ed.D. | $222,870          |
| IDEA/Cellular Regeneration & Therapeutics | **Applicant:** Regenerative Research Foundation  
**Subapplicant:** Marine Biological Laboratory | Developing Intracellular Antibodies Against Alpha-Synuclein as Potential Therapeutics in Spinal Cord Injury and Disease | PI: David Butler, Ph.D.  
**Subapplicant Staff:** Jennifer Morgan, Ph.D. | $311,921          |
| PART/Rehabilitation                | **Applicant:** The Research Foundation of CUNY obo College of Staten Island  
**Subapplicant:** Bronx Veterans Medical Research Foundation | Activity-Dependent Transspinal Stimulation for Recovery of Walking Ability after SCI | PI: Maria Knikou, P.T., Ph.D.  
**Subapplicant Staff:** Noam Harel, M.D., Ph.D. | $898,595          |
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</tr>
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| PART/Cellular Regeneration & Therapeutics | **Applicant:** Research Foundation for SUNY - SUNY Polytechnic Institute  
**Subapplicant:** The Methodist Hospital Research Institute | Healing the Contusion-Injured Spinal Cord Microenvironment with Nanotechnology- and Stem Cell- Assisted Modulation | PI: Janet Paluh, Ph.D.  
**Subapplicant Staff:** Philip Horner, Ph.D. | $970,404 |
| IDEA/Cellular Regeneration & Therapeutics | **Applicant:** Bronx Veterans Medical Research Foundation  
**Subapplicant:** Icahn School of Medicine at Mount Sinai | Role of Synaptojanin 1 in Functional Recovery after Spinal Cord Injury | PI: Christopher Cardozo, M.D.  
**Co-PI:** Dongming Cai, M.D., Ph.D.  
**Subapplicant Staff:** Bin Zhang, Ph.D. | $344,624 |