Programmatic Oversight Committee

- Dr. Story Landis
  Director, National Institute of Neurological Disorders and Stroke

- Dr. John Gallin
  Director, National Institutes of Health Clinical Center

- Dr. Tom Insel
  Director, National Institute for Mental Health

- BG Dr. Loree Sutton,
  Director, Defense Centers of Excellence

- Dr. Larry Laughlin
  Dean, USU School of Medicine

- Dr. Ada Sue Hinshaw
  Dean, USU Graduate School of Nursing

- Dr. Dale Smith
  USU Office of the President, Senior Vice President

- Mr. Stephen Rice
  USU Vice President for Finance and Administration

- BG Philip Volpe
  Deputy Director, Joint Task Force National Capital Region

Two Subcommittees: Technical Review and Human Studies
CNRM Program Review Process

**Planning Meetings**
- Sept. 15 - Nov. 15

**Research Plan Writing**
- Nov. 1 – Jan. 31

**HJF and USU OSP Review**
- Feb. 2 - 25

**USU Grants Office Review**
- Feb. 25 – Mar. 12

**Programmatic Oversight Committee**
- May 20

**Technical Review Site Visit**
- April 17

**Technical Review**
- Mar 15 – Apr 17 (Projects)

**Programmatic Oversight Committee**
- April 1 (Cores)

**AWARD**
- June 15 (Projects)

**AWARD**
- April 1 (Cores)
Total Costs of All Cores Over 2 Years = $30,408,929
Total Costs of Subprojects Over 2 Years = $28,906,003
Diagnostics and Imaging Program
Jim Smirniotopoulos, David Bluemke, Alan Koretsky

**Imaging and prognosis**

"Independent predictors of PTSD and Post Concussive Syndrome In OIF/OEF veterans"
Michael Roy, with Rapp, Xydakis, Smith, Lissek, Grillon, French

"Natural Hx TBI civilian recruitment & early Imaging"
Lawrence Latour, with Warach, Merino, Hsia, Barr

"Predicting outcome after mild TBI: Brain indices of structure and function"
Connie Duncan, with Benedek, French, Gabbay, Vascencelos, Riedy, Shenton

**Pathophysiology**

"Neuroplasticity in control of executive function after traumatic brain injury"
Leonardo Cohen, with Xu, Talagala

"PET imaging of neuroinflammation in TBI"
Masahiro Fujita, with Innis, Pike, Herscovitch

**Novel Diagnostics**

"In vivo AxCaliber MRI"
Peter Basser, with Ambrustmacher, Assaf, Barazany, Armstrong, Olson

"Radial diffusion-weighted MRI acquisitions for diffusion tensor imaging of TBI"
Carlo Pierpaoli, with Sarlls

"Field deployable near infra-red imaging/EEG multi-modality system"
Amir Gandjbakhche, with Riley, Amyot, Rapp, Roy, French
Biomarkers Program
Brian Cox, Raymond Dionne

"Genomic response to TBI"
Taura Barr, with Dionne, Warach, Latour, Conley, Singleton, Forsberg, Potter, Alexander

"BM-driven experimental therapeutics"
Ray Dionne, with Pasquina, Kerr, Wang, Kim

"Neuro-glial antibodies in traumatic brain injury"
Michael Iadarola, with Cox

"Plasma biomarkers of blast-related brain edema"
Fabio Leonessa, with Ling, Ecklund, Cox

"Evaluation of putative biomarkers in TBI"
Gregory Mueller, with Driscoll

"Proinflammatory biomarkers for mild blast TBI"
Harvey Pollard, with Mueller, Rothwell, Eidelman

"Non-invasive sweat patch technology for determination of neuroimmune biomarkers"
Esther Sternberg, with Phillips

"Brain region specific biomarkers in models of TBI"
Amina Woods, with Cox, Long, Dunn

"Evaluating a novel peptide therapy for TBI: A biomarkers approach"
Amina Woods, with Cox
"Membrane biophysics of traumatic brain injury"
Sergey Bezrukov, with Zimmerberg, Pollard, Reese, Parsegian, Blank, Braga

"Pathological and pathophysiological alterations in hippocampus in a mTBI model"
Maria Braga, with Marini, Eiden, Li, Lu

"Neuroprotective and neurotrophic effects of mood stabilizing drugs in TBI"
De-Maw Chuang, with Zhang, Vana, Wang, Chiu

"Neurobehavioral phenotyping in models of BOP, HIFU, and stress"
Neil Grunberg, with McCarron, McCabe, Li, Wu, Krishnamurthy, Baumann, Jacobowitz

"Effects of boosting brain endocannabinoid levels on fear extinction behavior"
Andrew Holmes, with Kunos, Costa, Wu

"Blast-induced injury of blood-brain barrier and neuroimmune sequelae"
Chantal Moratz, with McCabe, McCarron, Schiltz, Lonser, O'Neil, Sternberg
Neuroregeneration Program
Regina Armstrong, Heather Cameron

"Improving neuroregeneration after exposures to multiple mild blasts"
Denes Agoston, with Grunberg, Long

"Neural stem-progenitor cell repair potential at distinct sites of TBI pathology"
Regina Armstrong, with Dobson, Ahn, Juliano

"Using the olfactory system as a model for studying traumatic brain injury"
Leonardo Belluscio, with Juliano, Armstrong, Xydakis

"Characterizing mitochondrial Ca+2 homeostasis and the effects of oxidative damage"
Rachel Cox

"HDAC inhibitor effects on adult neurogenesis post-TBI"
Martin Doughty, with Wynder

"Genetic identification of neural stem cell self-renewal regulators"
Yang Du

"Generation of iPS cells without vector"
Ying-Hong Feng, with Qiu, Cheng, Armstrong, Juliano, Darling

"Tracking labeled stem cells in TBI model by cellular MRI"
Joseph Frank, with Watson, Budde, O'Neill, Ren, Mueller, Schaefer

"Using Neural stem/progenitor cells to repair simple neural circuits after TBI"
Sharon Juliano, with Belluscio, Galdzicki

"Modulation of NF-kB-dependent immune responses for post-TBI neuroregeneration"
Brian Schaefer, with Symes, Doughty, Schoneboom, Agoston, Watson, Galdzicki

"Altering the ECM after TBI to enhance regeneration and plasticity"
Aviva Symes, with Geller, Ecker, Juliano, Schaefer, Armstrong, Schoneboom
Neuroplasticity Program
Sharon Juliano, Jordan Grafman

"Neuroplasticity in human sensory cortex"
Chris Baker, with Bandettini, Goldman

"Functional Maps of Neuronal & glial Activity Following TBI, Stress & TBI"
Suzanne Bausch, with Schell, Wang, Russell, Mouratidis

"Motor Learning after Traumatic Brain Injury"
Leo Cohen, with Juliano

"Epigenic factors and cortical map plasticity in the model of TBI"
Zygmunt Galdzicki, with Juliano, Isaac, Kozikowski, Xiang, Schell

"Executive Function & Social Cognitive Adaptive Neuroplasticity"
Jordan Grafman, with Wasserman, Goldman

"Subcortical Synaptic Plasticity after TBI"
Luke Johnson, with Williams, Bandettini, Grafman, Bausch, Mouratidis, Schell

"Does TBI alter Extrinsic and intrinsic connectivity in sensory cortex?"
Sharon Juliano, with Galdzicki, Wang

"Development of an organotypic brain slice model for shear injury"
Michael Schell, with Russell, Juliano, Johnson, Bausch, Xiang

"Glial and Inflammatory Maps of Traumatic Brain Injuries"
Bruce Schoneboom, with Schell, Russell

"The Role of Reward in Human Neuroplasticity"
Eric Wasserman, with Bandettini, Goldman, Ling, Grafman, Cohen

"Retrograde Injury Signaling and Cytoskeletal Alternations in Barrel Cortex after TBI"
Xin Xiang, with Juliano, Schell
Rehabilitation and Evaluation Program
Paul Pasquina, Leighton Chan

"Effects of rapid reciprocal exercise vs. light therapy in TBI & PTSD"
Diane Damiano, with Benedek, Cohen, Youngstedt, Beutler

"Exercise training, aerobic capacity, fatigue, and activity tolerance in TBI"
Diane Damiano, with Keyser, Chan, French

"Pilot study to assess the application of haptic technology to functional improvement in persons with mild and moderate TBI"
Leighton Chan, with Gerber, Duric, Palsbo

"Development of a robotic telerehabilitation system for warriors with TBI"
Diane Damiano, with Park, Zhang, Hansen

"Evaluation of the safety and efficacy of the BrainPort™ balance device"
Yadira Del Toro, with Weinstein, Hoppes, Pasquina

"Novel cognitive rehabilitation approaches for OIF/OEF TBI patients"
Lou French, with Pasquina, Keyser, Chan

"Epidemiology of headache disorders in a military cohort with and without TBI"
Ann Scher, with Finkel, Schwab, Solomon, Pasquina

"Computerized dynamic posturography in the military population"
Barbara Springer, with Lambert, Garbrecht, Del Toro, Golden

"Cognitive AT & services delivery for people with moderate TBI"
Sandra Harrison-Weaver, with Cooper, Pramuka, St. Laurent

"Assessment of sleep disturbance/disorders and sleep-associated neural plasticity in Service Members with mild or moderate traumatic brain injury"
Carlos Zarate, with Duncan, Pastel, Coppola, Miller, Lettieri
CNRM Leased Space
12725 Twinbrook Parkway in Rockville, MD
CNRM Governance for Faculty Recruitment

USU President

CNRM i.d. expertise needs and $

Deans i.d. school needs

Recruitment Plan

CNRM Leader

USU Senior Faculty

Search Committee co-chairs

CNRM Director

Chair

Joint recommendation

Joint mentorship plan

Dean Appoints to Dept
Faculty Recruitment Plan

Initial Set:

1. Clinician (M.D.) with (acute) head injury expertise and ability to lead a strong, collaborative clinical research program. SOM, Neurology Department.

2. Neuropathologist (M.D.) to lead research program that can interface with AFIP, NIH, and USU investigators. SOM, Pathology Department.

3. Nurse researcher (Ph.D.) with head injury expertise and ability to lead a strong, collaborative research program. GSN.
Human Studies Subcommittee

- Facilitate CNRM protocol planning and submission for current site specific IRBs

- Work with investigators to plan and implement a topical IRB for neuroscience across sites involved with CRNM
Future Communications

• CNRM Website
  Testing site functions
  Content undergoing final edits
  Home page graphics completion pending
  Will serve as major source of information

• USU Discussion Group meetings scheduled approximately quarterly. Tentative dates:
  August 20, 2009 at 4:00
  November 19, 2009 at 4:00
  February 18, 2010 at 4:00
  May 20, 2010 at 4:00