National Network of Depression Centers

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NNDC 2017 Conference

Poster Guidelines and Travel Awards

The NNDC Annual Conference will be held September 25-27, 2017 at the Sheraton in Ann Arbor, MI. Poster presentations are strongly encouraged. All conference attendees are invited to submit a poster related to depressions and bipolar illnesses, focusing on our theme of **"Precision Psychiatry for Depressions and Bipolar Illnesses"**, in the categories of **Basic Science, Clinical, and Task Groups.** In addition, all Emerging Scholars are eligible to compete for travel awards. Emerging Scholars include: Graduate Students, fellows, post-doctoral fellows, residents, and junior faculty within 5 years of fellowship or post-graduate appointment.

1. Posters will apply to one of these categories:
   - ☐ **Basic Science**- All areas of research are encouraged, but Posters detailing approaches (both biological and psychosocial) to the understanding of mood disorders, new or repurposed treatments and technologies, or monitoring strategies with the potential to improve patient outcomes are particularly welcome.
   - ☐ **Clinical**- Unified efforts are the best way to expedite technological innovation, dissemination of new information, and translation of research into clinical practice. Posters might showcase multidisciplinary programs or demonstrate the efficacy of collaborations beyond academic boundaries.
   - ☐ **Task Groups**- Activities and reports of task group initiatives are encouraged.

2. Abstracts must be submitted by **July 15**. Late abstracts will not be accepted. (see format example at the bottom)
3. Posters must be hung at the Sheraton Ann Arbor by 2:30 PM on September 25th, and taken down by noon on September 27th.
4. Posters can be no larger than **36 inches high X 48 inches wide**, and will be fastened to cork boards.
5. Three prizes will be awarded at the conference dinner on September 26. Posters will be judged from 5:00-6:30 PM on September 26 during the poster presentation and networking reception session. A $500 prize will be given to the winning posters in all categories (one award per poster, with allocations to be determined by the authors).

Travel Award Eligibility

Up to 10 travel grants will be awarded to exceptional poster abstracts submitted for the conference, with the potential for additional awards as funds become available. Eligible applicants must be members of the NNDC at one of the 23 Center of Excellence sites or 3 Associate Member sites, AND be an Emerging Scholar as defined above. Grants of up to $1,000 can be used to offset the cost of airfare, mileage, rental car, gas, lodging, ground transportation, baggage, and parking (as applicable). *Food is not an eligible expense, as meals are provided throughout the conference.*

To Apply for a Travel Award

1. Complete the Emerging Scholar Travel Award Application.
2. Prepare an abstract related to the theme of the conference of up to ½ page in length (see format example at the end of this notice).

3. Be first or last author on the poster
4. Belong to one of the following categories:
    a. Graduate Students
    b. Fellows
    c. Post-Doctoral Fellows
    d. Residents
    e. Junior Faculty (within 5 years of fellowship or post-graduate appointment)
5. Request a brief letter of support from your program director/chair, an NNDC Board Member at your site, or your mentor, and ask your letter writer to send it by email to Dinah Hoskin at dhoskin@nndc.org no later than July 15th.
6. Submit the completed application form and abstract to Dinah Hoskin at dhoskin@nndc.org.

Applications will be reviewed by a panel of senior faculty, and applicants will be notified of the decision by late July.

To Qualify for Reimbursement
Submit receipts at the end of travel (no later than 5:00 PM October 16, 2017) to Dinah Hoskin at dhoskin@nndc.org. Or mail them to Dinah Hoskin, NNDC, 2350 Green Road Suite 191, Ann Arbor, MI 48105.

IMPORTANT DATES FOR ALL POSTER PRESENTERS
1. July 15 – Abstracts and complete Travel Award Applications will be accepted through July 15, 2015. Abstract presentation acceptance will be based upon Program Committee review.
2. July 22 – Accepted Abstracts and Travel Grant Recipients will be notified of decision.
3. October 16 – Travel award recipients must submit travel receipts by 5:00 PM on October 16 eligible for reimbursement.

Abstract Format Examples

(Example One)
Differential mTOR activation, not GSK3, in peripheral blood distinguishes lithium responsive and non-responsive bipolar patients. Authors: Kristin Borreggine[1], Susannah J. Tye[1,2,3,4*]J. Blair Price[1], Lily Chan[1], Alfredo B. Cuéllar-Barboza[1,5], Susan L. McElroy[6], Shari Sutor[1], Joanna M. Biernacka[1], Mark A. Frye[1,].
Lithium remains the gold standard mood stabilizing medication for Bipolar Disorder (BD) worldwide. While available in most countries for more than 40 years, the mechanism of action that confers mood stabilization and/or reduction in suicidality remains relatively unclear. Developing personalized or individualized treatment approaches for bipolar patients to best optimize outcomes will require greater delineation of the neurobiological mechanism underlying lithium response. Inhibition of glycogen synthase kinase 3 (GSK3) has repeatedly been shown to underlie the mood-related behavioral effects of lithium in preclinical rodent studies. GSK3 inhibition, in turn, directly modulates Wnt and PI3K/Akt signaling pathways *in vivo* and *in vitro*. Downstream of GSK3, mammalian target of rapamycin (mTOR) also plays a critical role in the behavioral actions of lithium, integrating cellular responses of both Wnt and PI3K/Akt pathways[5]. These pathways contribute to cellular resilience, growth and plasticity processes thought to underlie antidepressant and mood stabilizing therapeutic outcomes in BD[7]. GSK3 and mTOR have both been implicated in a number of important cellular functions critical to synaptic neurotransmission, plasticity, cell migration, survival, proliferation and plasticity[8]. GSK3 and mTOR may also play a critical role in rapid antidepressant responses to ketamine, regulating both its behavioral and neurobiological effects, including establishment of long-term potentiation and new synaptic connections. Lithium treatment has also been shown to augment and extend these rapid antidepressant actions of ketamine through actions on GSK3 and mTOR, supporting a critical role for modulation of these signaling systems in its mood regulatory actions. The purpose of this study was to investigate the relationship between GSK3 and mTOR protein levels (total and phosphorylated) and lithium clinical response. The significant difference in phosphorylated levels of mTOR relative to no difference in total mTOR protein levels suggests increased overall mTOR activation in lithium non-responsive bipolar patients. Given all patients had been taking lithium >2 years at time of blood draw, this may reflect a limitation in the functional actions of lithium via this molecular substrate.

(Example Two)

EEG-based Graph Theoretical Measures as Biomarkers of Clinical Outcome in Electroconvulsive and Magnetic Seizure Therapy. Authors: Zhi-De Deng, Ph.D., Shawn M. McClintock, Ph.D., M.Sc., Sarah H. Lisanby, M.D.
Electroconvulsive therapy (ECT), the most efficacious treatment of pharmacoresistant depression, has been reported to alter functional brain network architecture by down-regulating connectivity in frontotemporal circuits. Magnetic seizure therapy (MST), which induces therapeutic seizures with high dose repetitive transcranial magnetic stimulation, has been introduced to improve the seizure therapy risk/benefit ratio. Unfortunately, there is limited understanding of seizure therapy's underlying mechanisms of action. In this two-center, double-masked study, patients were randomized to either ultrabrief pulse right unilateral ECT or circular coil MST. The study examined efficacy, neurocognitive outcome, and brain network connectivity before and after the acute treatment course. Patients were considered responders if they showed at minimum a 50% reduction in the 24-item Hamilton Rating Scale for Depression total score. Fifty-nine channel resting EEG was acquired at baseline and after the treatment course in 9 patients (3 responders) for 10 minutes in the eyes opened condition. The 10-minute EEG recording was partitioned into 300 two-second epochs, and spectral analysis was performed using multitaper Fourier transform. Functional connectivity was assessed using the debiased weighted phase lag index (DWPLI), a measure of EEG phase synchronization. Brain network structure was assessed based on graph theory measures: betweenness centrality, clustering coefficient, network density, and characteristic path length. At baseline, responders and nonresponders exhibited similar DWPLI–frequency profile. There was a significant post-treatment increase relative to baseline of the delta band DWPLI in the responders but not in nonresponders ($p<0.01$). There was also a significant post treatment increase of the delta band network density in responders compared to nonresponders ($p=0.03$). Our findings support the use of brain network measures based on graph theoretical analysis of resting-state EEG as biomarkers of response to seizure therapy in severely depressed patients. Indeed, graph theoretical analysis of the topological organization of functional brain networks may provide insight into the pathophysiology of depression as well as mechanisms of therapies.

(Example Three)

Training for the Future: Innovations in Collaborative Care as a tool for training future physicians in multiple disciplines. Authors: Hilja Ruegg MD, Jocelyn Weber LPCC-S, Cheryl McCullumsmith MD, PhD
Department of Psychiatry and Behavioral Neuroscience-University of Cincinnati, Cincinnati, Ohio
Background: Collaborative care provides quality evidence based psychiatric care to primary care populations, while reserving psychiatric time to address complex clinical concerns. While this model is gaining traction nationally, both psychiatry and their medical primary care trainees have limited exposure to these models of care. Integrating collaborative care in the academic medical training environment provides both unique challenges as well as opportunities for accelerating adoption of this model as trainees graduate and move into positions in the community.
Methods: The Departments of Internal Medicine and the Department of Psychiatry jointly created a collaborative care pilot site embedded within the Internal Medicine Residency primary care site. In the first year of implementation a Depression Care manager and supervising psychiatrist educated residents and faculty in depression screening, evaluation and referral through both individual 1:1 sessions and lectures. In the second year of implementation two senior level psychiatry residents each spent a month long elective with the collaborative care team, dividing their time between working with the Care Manager participating in initial care management evaluations and with the psychiatrist providing supervision and consultation. They attended clinic management meetings and provided education to the resident and faculty primary care providers.
Results: This pilot project has now moved into a full permanent implementation phase with development of depression management skills for internal medicine residents. A standardized elective in collaborative care for psychiatry residents has been established. As a result of their exposure to the collaborative care model both graduating psychiatry residents who participated in the pilot project are pursuing careers that include a role as collaborative care psychiatrist.
Conclusions: This pilot demonstrates that integrating collaborative care into the training experience for residents enhances multidisciplinary training and prepares professionals to use this model in the future.