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Abstract (~100 words)

This SEEDS application requests resources to invite a prominent neuroscience researcher in the field of taste processing and perception to give a colloquium and provide training at the University of Miami Coral Gables campus. UM has been committed to growing its research presence in the area of neuroscience. A campus-wide “Understanding the Brain” neuroscience initiative has resulted in the creation of neuroimaging facilities on campus and of several faculty lines within the Department of Psychology, as well as a cluster hire focusing on “Mind, Brain and Evolution” that involves ongoing faculty searches in the departments of psychology, physics, anthropology, and philosophy. Building on this momentum, The University of Miami Neuroimaging Suite has purchased equipment to facilitate the study of emotional processes, as emotion is central to psychiatric disorders. As a result, this SEEDS grant proposes to invite a well-known affective neuroscientist to UM to present his/her research and offer trainings in how to use the fMRI compatible equipment in the most advanced way. This visit will foster cohesion amongst the growing number of faculty and students on campus with interests in this emerging field. The funds would be used to pay for airfare and accommodations to support the visit of a distinguished scientist for this colloquium.
Activity Goals (250-500 words)

The goals of this colloquium would be to: 1) attract attention to the nascent “Understanding the Brain” initiative on campus by inviting a famous affective neuroscientist to visit with scholars and students in Psychology and Neuroscience at UM, and 2) to provide trainings for the UM community in how to use the most advanced and sophisticated fMRI compatible neuroscientific equipment. Many current UM neuroscience researchers are interested in emotional processing and how it relates to health, well-being and mental illness. As such, much of our research attempts to induce emotion in participants and measure neural changes. However, it can be difficult to reliably induce emotion in participants. To that end, the UM NIS purchased a device that can deliver liquid juice (a “gustometer”) to participants in a highly controlled way. Because feeding is such a core human need, the pleasure derived from receiving sweet juice when thirsty is ubiquitous across people. Juice stimuli are also often used in both rodent and non-human primate neuroscience research, so using this device in the most advanced way possible would allow the neuroimaging researchers to reliably induce emotion in humans and build upon animal models of emotional processing. This would permit greater impact of our research on the neuroscience community.

This visit would increase the visibility of the affective neuroscience research on campus and provide a networking opportunity for young faculty, post-docs, and graduate students working in this field. It would provide the opportunity to advertise our newly constructed Neuroimaging Suite and highlight UM as an up-and-coming institution for affective neuroscience research. Lastly, it would facilitate our own work by providing a training component to ensure that we are using the most up-to-date methods for inducing emotion in participants.

This colloquium would draw attention from the larger community. This colloquium and training will also facilitate cross-talk and the potential for collaboration among neuroscientists at UM. The speaker will be invited to stay for three nights to provide ample opportunities for meetings with faculty and students. In addition to a scientific colloquium, the speaker may be asked to give a second lecture catered towards mentoring students who are pursuing degrees in psychology and neuroscience. Ultimately, the goal is to raise awareness of UM in the neuroscience community and increase excitement and participation in the use of the neuroimaging resources on the Coral Gables campus.
Personal Goals (100-250 words)

My personal career goals are to be a researcher and educator, attempting to better understand emotional processing in patients suffering from emotional disorders such as depression. In particular, I am interested in the processing of positive emotion and how we might promote the experience of positive emotion in patients. As a trained clinical psychologist I have had first hand experience with patients and my hope is that my research will improve the identification, prevention and treatment of those at-risk for, and currently suffering from, mood disorders. I also study well-being in the general population as I truly believe that mental health is not simply “the absence of mental illness”. In parallel, a long-term goal is to excite the next generation of scientists to think creatively and rigorously about how to similarly improve identification and treatment of these at-risk. Using various methods to study emotion is critical and using taste and a “gustometer” is an untapped direction that could have significant impact on the neuroscience community.

In the short term, my personal goals include building my laboratory and continuing make important contributions to the field of affective neuroscience. I am currently submitting my first R01 application to NIMH and with hope to be a well-funded researcher that utilizes all the approaches at my disposal to study positive emotion. Such approaches can increase the visibility of UM to the neuroscience community, and can to contribute to the intellectual climate on campus. My hope is that this colloquium will draw positive attention to the campus and the “Understanding the Brain” initiative.
Budget and Budget Justification

Accommodation for invited speaker, 3 nights at Sonesta, Coconut Grove: $500

Speaker dinner including four faculty and three students: $1000

The speaker may be arriving from any part of the United States, thus a budget is requested for covering this airfare. An honorarium of $500 is requested to provide additional incentive for the speaker to participate. Accommodation at a nearby hotel for the duration of the visit is also requested. Finally, a speaker dinner including several cognitive neuroscience faculty and students with research interests aligned with the speaker will provide an opportunity for encouraging dialogue and collaboration. Below is a partial list of several prominent affective neuroscientists who may be contacted and invited to UM if this SEEDS application is funded. Included in the list are several well-known women scientists.

Marga Veldhuizen, PhD (http://jbphirs.org/faculty/maria-veldhuizen-phd/)
Dana Small, PhD (http://jbphirs.org/faculty/dana-small-phd/)
David Zald (http://www.vanderbilt.edu/psychological_sciences/bio/david-zald)
Aaron Shain Heller
CURRICULUM VITAE

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Email:

Education

Ph.D. 2013 University of Wisconsin, Madison
Clinical Psychology.

B.A. 2003 University of California, Berkeley
Psychology.

Professional Positions

2015-present Assistant Professor
Department of Psychology
University of Miami

2013-2015 Postdoctoral Associate of Psychology in Psychiatry
at Weill-Cornell Medical College (BJ Casey, PI)

2012-2013 Predoctoral psychology intern at Weill-Cornell
Medical College/New York Presbyterian Hospital

2006-2013 Graduate student, Laboratory for Affective
Neuroscience, Waisman Center for Brain Imaging
and Behavior (Richard J. Davidson, PI); University
of Wisconsin, Madison.
Dissertation: The temporal dynamics of emotion and
brain response – relations to health, well-being and
psychopathology

2004-2006 Lab Manager, Research Assistant, Network
Administrator, for Dynamic Memory Lab (Charan
Ranganath, PI). Center for Neuroscience, University
of California, Davis.

2003-2004 Travelled in South America.
2000-2001 Research Assistant to Dr. Leon Deouell, Dr. Mark D’Esposito, Dr. Bob Knight in the Department of Psychology, Department of Neuroscience, at the University of California, Berkeley

**Honors and Awards**

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<tr>
<th>Year</th>
<th>Award</th>
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<tbody>
<tr>
<td>2014</td>
<td>Wisconsin Symposium of Emotion Travel Fellowship</td>
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<td>2013</td>
<td>Weill-Cornell Intern Research Award</td>
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<tr>
<td>2011</td>
<td>Ramona O. Messerschmidt Clinical Psychology Award</td>
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<tr>
<td>2010-2012</td>
<td>Hertz and Royalty Research Travel Award</td>
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<td>2008</td>
<td>Scholarship Award to attend 3-day workshop at Beck Institute for Cognitive Therapy and Research</td>
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<td>2008</td>
<td>James L. Davis award: Using neuroscience methodologies to advance the understanding of clinical depression.</td>
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<td>2008</td>
<td>Abramson Award for Cognitive Approaches to psychopathology</td>
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<tr>
<td>2006-2008</td>
<td>NIMH Emotion Research Training Grant recipient (~$50,000)</td>
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**Publications**

**Heller AS, Cohen AO, Dreyfuss M, Casey BJ (Under Review).** Changes in cortico-subcortical and subcortico-subcortical connectivity impact impulsivity to emotional cues across development.


**Heller AS, Lapate RC, Mayer KE, & Davidson R (2014).** The face of negative affect: Trial-by trial corrugator responses to negative pictures are positively


* indicates authors contributed equally to the work.

**Academic & Conference Talks**

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<th>Year</th>
<th>Event</th>
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<tr>
<td>2014</td>
<td>Clinical Psychology Seminar, Harvard University</td>
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<tr>
<td>2014</td>
<td>Department of Psychology Colloquium, State University of New York, Stony Brook</td>
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<tr>
<td>2014</td>
<td>Department of Psychology Colloquium, University of North Carolina, Chapel Hill</td>
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<td>2014</td>
<td>Department of Psychology Colloquium, University of Miami</td>
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<td>2013</td>
<td>Department of Psychiatry Sackler Seminar Series, Weill Cornell Medical School</td>
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<td>2013</td>
<td>Department of Psychiatry Grand Rounds, Weill Cornell Medical School</td>
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<td>2013</td>
<td>Department of Psychology Colloquium, Vanderbilt University</td>
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<td>2013</td>
<td>Department of Psychology Colloquium, University of Texas-Austin</td>
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<td>2010</td>
<td>Society for Neuroscience Annual Meeting Nanosymposium, San Diego, CA</td>
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**Teaching Experience**

**Teaching Assistant:**
Psychology 710: Design and Analysis of Psychological Experiments (A.K.A. Multiple Regression & Linear Models)

Graduate level course covering Multiple Regression using statistical software package R; University of Wisconsin-Madison, spring, 2010.

Organized and ran two weekly labs, graded assignments and exams, helped manage grades, held weekly office hours.

**Ad hoc reviewer:**

**Memberships:**
Association for Psychological Science–Member
Cognitive Neuroscience Society—Member
Social & Affective Neuroscience—Member
Society for Research in Psychopathology—Member
Society for Neuroscience—Member

Professional Service & Leadership:
2015 Program Committee; Social & Affective Neuroscience
2014 Program Committee; Social & Affective Neuroscience
2011-2012 UW-Madison Recreational Sports Governance Board

Skills
Assessment Skills: Trained to administer and interpret several neuropsychological clinical assessment instruments, including, BSI, CAPS, CPT, D-KEFS, MMPI, MCMI, NEPSY, SCID-I, SCID-II, TOVA, WAIS-IV, WIAT-II, WISC-IV, WJ-III.

Clinical Practice
2008-2009 Dean Clinic Department of Psychiatry - Pediatric Neuropsychology. Assessment and Evaluation
Conducted and interpreted neuropsychological assessments using various standardized tests (WISC-IV, WIAT-II, WJ-III, NEPSY, D-KEFS, TOVA) to children from a variety of backgrounds, including, autism, oppositional defiant disorder, mood and anxiety disorders, and learning and cognitive disabilities.
Supervisor: Peter Williamson, Ph.D.

2008-2012 Psychology Research and Training Clinic, Psychology Department, University of Wisconsin-Madison Assessment and Evaluation
Conducted intake assessments with individuals seeking psychotherapy services, which includes a full clinical interview administration of the Minnesota Multiphasic Personality Inventory (MMPI-2), and generation of a comprehensive written report. Additional responsibilities included supervision of junior graduate students in clinical interviewing and report writing. Faculty supervision occurs during weekly intake staffings. Also conducted learning disability and cognitive assessments with adults, children, and adolescents using the WPPSI-III, WISC-IV, WAIS-IV, the Woodcock-Johnson-III Tests of Achievement, the D-KEFS and TOVA. Assessments included a brief clinical interview, generation of a comprehensive report, and feedback to the client. Licensed psychologists provided close supervision of learning disability and cognitive assessments.
Supervisors: Linnea Burk, Ph.D., Bruce Erdmann, Ph.D., Rodney Miller, Ph.D., Maureen Rickman, Ph.D., and Peter Williamson, Ph.D.
Psychotherapy
Provided psychotherapy to clients suffering from symptoms of depression and anxiety. Weekly therapy sessions were conducted under the supervision of licensed psychologists. Supervision occurred in individual and group settings and consisted of videotape review and treatment planning. Case conceptualization and treatment plans were derived from cognitive-behavioral, interpersonal, and neo-psychoanalytic perspectives. **Supervisors:** Lea Aschkenase, Ph.D. and Rhonda Reinholtz, Ph.D.

Crisis Intervention
Provided 24-hour on-call service on a rotating basis to Psychology Research and Training Clinic clients.

Practicum and Seminar Training
Didactic training was provided via weekly seminars consisting of intake staffings, case presentations, discussions on a variety of clinical topics (e.g., ethics, cultural diversity, psychopharmacology) and training in empirically validated treatments (e.g., cognitive behavioral, interpersonal, dialectical behavioral). Invited speakers presented on broad clinical topics (e.g., mindfulness, relaxation techniques).

**2009-2011 William S. Middleton Veteran’s Hospital**
Assessment and Evaluation
Administered the Structured Clinical Interview for DSM-IV (SCID-I) and the Clinician Administered PTSD Scale (CAPS) to veterans. Scored these instruments to determine whether volunteers were eligible for participation in clinical research based on their diagnostic status. Also, conducted assessment of personality involving administration and scoring of the Million Clinical Multi-axial Inventory III (MCMI), the MMPI and the Structured Clinical Interview for DSM-IV Axis II: Personality Disorder Diagnoses (SCID-II).

**Supervisors:** Tracey Smith, Ph.D. and Nathan Miller, Ph.D

Psychotherapy
**Individual:** Conducted Cognitive Processing Therapy (CPT) with 4 individuals, which is a semi-structured 12 session therapy for PTSD. Conducted Prolonged Exposure therapy (PE) with 4 individuals, which is also a semi-structured 9 session therapy for PTSD. Conducted treatment planning sessions with 11 individuals. **Group:** Co-facilitated 12-week group therapy using Behavioral Activation (BA) to treat PTSD. Co-facilitated a 12-week couple’s group for individuals with PTSD. Received weekly individual supervision and attended weekly PTSD clinic group supervision.

**Supervisor:** Nathan Miller, Ph.D.
2011-2012  **Access Community Health Centers**  
*Behavioral Health Psychotherapy*

Participate as member in the Behavioral Health Consultation team, which works directly with medical providers and their patients. The behavioral model focuses on brief (15-30 minute), focused interventions. Depending on need, patients are also seen for follow-up visits. Unique to this practicum, there was no specific case-load as all psychologists work with all the patients. About 60% of mental health visits are follow-up and 40% are new consults. Psychopharmacology training and consultation are the main foci of the practicum. Also assisted pediatricians with well-child visits, screening of post-partum depression, evaluating sleep hygiene, and desire to engage in tobacco cessation program.

*Supervisors: Armando Hernandez, Ph.D., and Meghan Fondrow, Ph.D.*

2012-2013  **Weill-Cornell Medical School/New York Presbyterian Hospital: Clinical Psychology Intern**  
*Outpatient Psychotherapy*

Maintain a caseload of 7-9 clients presenting with a variety of Axis I diagnoses (MDD, GAD, agoraphobia, PTSD), and treated with primarily CBT approaches. Maintain a caseload of 1-2 long-standing clients, treated with a psychodynamic approach. Maintain a caseload of 1 patient with borderline personality disorder, seen twice weekly, using Transference Focused Psychotherapy.

*Supervisors: Marika Kyrimis, Ph.D., Alex Levi, Ph.D., and Kay Haran, Psy.D.*

*Inpatient Psychotherapy*

Saw a variety of patients on the psychiatric inpatient unit at New York Presbyterian Hospital for four months. Participated in daily rounds where patients were discussed.

*Supervisor: Ben Brody, M.D.*

*Child/Adolescent Psychotherapy*

Maintain a caseload of 3 children/adolescents presenting with a variety of disorder and treated with CBT approaches for four months.

*Supervisor: Shannon Bennett, Ph.D.*

*Neuropsychological Assessment*

Perform weekly Neuropsychological assessments primarily with individuals currently housed at the inpatient psychiatric unit at New York Presbyterian Hospital. Interpret testing and write reports of each case.

*Supervisor: Faith Gunning-Dixon, Ph.D.*