

# Theodore P. Imhoff-Smith

PhD Student, Neuroscience Training Program  
NeuroImaging Research Program  
School of Medicine and Public Health  
University of Wisconsin-Madison

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<http://timhoffsmith.github.io>

## EDUCATION

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<b>University of Wisconsin-Madison</b> Bachelor of Arts in Psychology and Computer Science Certificate	August 2011
<b>University of Illinois at Urbana-Champaign</b> Master of Computer Science (emphasis in machine learning and statistics)	Expected 2023
<b>University of Wisconsin-Madison</b> Doctor of Philosophy in Neuroscience <i>Advisor: Vivek Prabhakaran, MD, PhD</i>	Expected 2025

## PUBLICATIONS

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Kral, T.R.A., Lapate, R., **Imhoff-Smith, T.P.**, Patsenko, E., Grupe, D.W., Goldman, R.I., Rosenkranz, M.A., & Davidson, R.J. (2022). Long-term meditation training is associated with enhanced subjective attention and stronger posterior cingulate-restrolateral prefrontal cortex resting connectivity. *Journal of Cognitive Neuroscience*. doi: [https://doi.org/10.1162/jocn\\_a\\_01881](https://doi.org/10.1162/jocn_a_01881)

Goldberg, S., **Imhoff-Smith, T.P.**, Bolt, D.M., Wilson-Mendenhall, C.D., Dahl, C.J., Davidson, R.J., and Rosenkranz, M.A. (2020), Awareness, Connection, and Insight: Testing a multi-component, self-guided, smartphone-based meditation app in a three-armed randomized controlled trial. *Journal of Medical Internet Research Mental Health*. doi: <https://doi.org/10.2196/23825>

Grupe, D.W., **Imhoff-Smith, T.P.**, Wielgosz, J., Nitschke, J.B., & Davidson, R.J. (2019). A common neural substrate for elevated PTSD symptoms and reduced pulse rate variability in combat-exposed veterans. *Psychophysiology*. doi: <http://doi.org/10.1101/364455>

Kral, T.R.A., **Imhoff-Smith, T.P.**, Dean III, D.C., Grupe, D.W., Adluru, N., Patsenko, E.G., Mumford, J.A., Goldman, R.I., Rosenkranz, M.A., Davidson, R.J. (2019). Mindfulness-Based Stress Reduction-related changes in posterior cingulate resting brain connectivity. *Social Cognitive and Affective Neuroscience*. doi: <https://doi.org/10.1093/scan/nsz050>

## PUBLICATIONS (UNDER REVIEW OR IN PREP)

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**Imhoff-Smith, T.P.**, Busse, W., & Rosenkranz, M.A. (in prep). Inflammatory provocation is associated with stress and mood-related changes in salience network resting connectivity.

**Imhoff-Smith, T.P.**, Grupe, D.W., & Davidson, R.J. (in prep). Cardiac response to threat and safety: Balance, flexibility, and state dysregulation of the autonomic nervous system in posttraumatic stress.

## CONFERENCE PRESENTATIONS

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Kral, T.R.A., **Imhoff-Smith, T.P.**, Lapate, R., Patsenko, E., Grupe, D.W., Goldman, R.I., Rosenkranz, M.A., & Davidson, R.J. (2020, November). Long-term meditation training is associated with stronger posterior cingulate — lateral prefrontal cortex resting connectivity and enhanced attention. Poster presented at the annual meeting of the Mind & Life Institute Contemplative Research Conference, Online.

**Imhoff-Smith, T.P.**, Kral, T.R.A., Grupe, D.W., & Davidson, R.J. (2018, May). MBSR increases PCC-DLPFC resting state functional connectivity relative to active control. Poster presented at the 11th annual meeting of the Social Affective Neuroscience Society, Brooklyn, NY.

Kral, T.R.A., **Imhoff-Smith, T.P.**, Grupe, D.W., & Davidson, R.J. (2018, May). Reduced anxiety and amygdala-sgACC resting state functional connectivity following MBSR. Poster presented at the 11th annual meeting of the Social Affective Neuroscience Society, Brooklyn, NY.

Grupe, D.W., Wielgosz, J., **Imhoff-Smith, T.P.**, Nitschke, J.N., & Davidson, R.J. (2017, May). Respiratory sinus arrhythmia and ventromedial prefrontal function in veterans with posttraumatic stress symptoms. Oral presentation at the 72nd annual convention of the Society of Biological Psychiatry, San Diego, CA.

**Imhoff-Smith, T.P.**, Grupe, D.W., & Davidson, R.J. (2017, March). Parasympathetic tone, PTSD symptom profiles, and phasic heart rate during threat anticipation. Poster presented at the 10th annual meeting of the Social Affective Neuroscience Society, Los Angeles, CA.

**Imhoff-Smith, T.P.**, & Rozek, C.S. (2015, May). The role of emotion regulation in student achievement. Poster presented at the 87th annual meeting of the Midwestern Psychological Association, Chicago, IL.

## RESEARCH AND PROFESSIONAL EXPERIENCE

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**Department of Radiology, University of Wisconsin - Madison** September 2021 - Present  
*Graduate Research Assistant*

**Center for Healthy Minds, University of Wisconsin - Madison** June 2015 - August 2021  
*Researcher, Data Engineer*

Studied affect, stress, sleep, and inflammation in the context of trauma and asthma. Conducted resting state connectivity, task fMRI, heart rate variability, respiration, and skin conductance analysis. Processed and analyzed heart rate and sleep measures from event-related Fitbit field data. Developed psychophysiology data pipelines in bash, Python, and Matlab. Cleaned and preprocessed MRI, psychophysiology, behavioral, EMA, and self report data.

### *Study Coordinator*

Implemented and supervised day-to-day procedures, screening, data collection, and data quality for an NIH-funded P01 grant. Co-managed training for a team of nine full time core staff and 20+ undergraduate assistants. Assisted the Research Program Manager with regulatory and budgetary tasks.

### *Data Collector*

Collected lab-based neuroimaging, psychophysiological, biological, behavioral, and self-report measures. Managed remote data collection for app-based intervention and Amazon Mechanical Turk studies.

**Epic, Madison, WI**

June 2012 - June 2015

*Pod Lead, Quality Assurance Specialist*

Managed and improved quality and process for a team of 17 on the EpicCare Inpatient (Medication Administration Record) application. Coordinated investigations for patient safety escalation across six clinical applications. Conducted usability research and designed usability curriculum for new employees. Led and coordinated cross-team testing of new development.

**Department of Psychology, University of Wisconsin - Madison**     January 2009 - December 2010

*Undergraduate Researcher*

Recruited, collected data, coded and entered self-report data for the Harackiewicz lab. Mentored and trained student peers. Analyzed social and individual differences in affective response to interpersonal threat.

**FELLOWSHIPS, HONORS, AND AWARDS**

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<i>Honorable Mention - National Science Foundation Graduate Research Fellowship</i>	March 2020
<i>Nominated to Sigma Xi, scientific research honor society</i>	June 2020
<i>Nominated to Tau Beta Pi, engineering honor society</i>	August 2020

**TECHNICAL SKILLS AND EXPERIENCE**

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<i>Programming:</i>	Python, R, Bash, MATLAB, Java, JavaScript, C++, HTML, CSS
<i>Statistical Software:</i>	RStudio, MATLAB, SPSS
<i>Image Processing:</i>	FSL, AFNI, FreeSurfer, ANTs
<i>Psychophysiology:</i>	BIOPAC, CMetX, Ledalab, Fitbit API
<i>Data Management:</i>	REDCap, Qualtrics, COINS

**PROFESSIONAL AND NON-PROFIT AFFILIATIONS**

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<i>Social and Affective Neuroscience Society</i>	May 2015 - Present
<i>Intentional Mentoring Madison (Board and Leadership Team)</i>	January 2019 - Present