

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL
DEPARTMENT OF PSYCHIATRY

James L. Abelson, M.D., Ph.D., Associate Professor of Psychiatry, with tenure, Department of Psychiatry, Medical School, is recommended for promotion to Professor of Psychiatry, with tenure, Department of Psychiatry, Medical School.

Academic Degrees:

M.D.	1984	University of Michigan
Ph.D.	1980	Michigan State University
M.A.	1978	Michigan State University
B.A.	1975	Oberlin College

Professional Record:

1996-Present	Associate Professor of Psychiatry, University of Michigan
1991-1996	Assistant Professor Psychiatry, University of Michigan
1989-1991	Instructor of Psychiatry, University of Michigan

Summary of Evaluation:

Teaching: Dr. Abelson's commitment to educating and training psychiatric residents has been outstanding throughout his career. As a clinician/scientist and psychologist/psychiatrist, Dr. Abelson brings unique skills and knowledge to our educational mission. He has a natural talent for conveying knowledge at the interface. His value and skills as an educator have been recognized with two Teacher of the Year Awards in the past seven years. Dr. Abelson is active with the Anxiety Disorders Association of America, the leading advocacy group for anxiety treatment and research in the United States, where he serves on the program committee for the clinical track of the national meeting as well as on the Scientific Advisory Board.

Research: As a clinician and neuroscientist, Dr. Abelson's research involves the interaction of cognition and emotion in shaping behavior and producing psychopathological dysregulation of behavior. The focus of his current research is on the pathways and mechanisms within the brain that allow "top-down" inhibitory modulation of lower brain centers by cortical regions, particularly prefrontal cortex – thus allowing cognitive control of emotionally driven behavior. Considerable human psychopathology is likely due to failures within these inhibitory circuits, allowing un-modulated activity in more primitive behavioral drive systems (such as the limbic alarm circuits that create fear and anxiety).

Dr. Abelson's background as a clinical psychologist, neuro-endocrinologist, and psychiatric neuroscientist, coupled with a growing understanding of functional neuroanatomy, has prepared him well to pursue the goal of his next decade of research – to understand these circuits and their role in anxiety and stress-related disorders. This goal synchronizes perfectly with his central clinical mission – to enhance the ability of patients with anxiety disorders to

assert cognitive control over emotionally driven maladaptive behaviors, using both pharmacological and psychological means.

An important finding to date is a product of Dr. Abelson's interdisciplinary training and ability to bridge behavioral science and neurobiology. This was recently published (*Arch Gen Psychiatry*) showing that a brief verbal/cognitive intervention can reduce the cortisol response to a pharmacological activator of the neuroendocrine stress (HPA) axis. The intervention targeted novelty, control, and coping – psychological phenomena known to modulate this system. The data suggest that simple but specifically targeted psychological preparation may reduce HPA reactivity to predictable stressors, potentially allowing development of stress inoculation techniques that could reduce the detrimental effects of stress on health. The mechanism of the modulation Dr. Abelson and his research has documented likely involves known inhibitory pathways from medial prefrontal cortex to the hypothalamus. Parallel pathways involving prefrontal cortex and the amygdala are likely central factors in the pathophysiology of some anxiety disorders. Ongoing work will increase our knowledge of these pathways, providing new models for understanding psychopathology.

A current RO1 (Dr. Abelson as principal investigator) attempts to determine the active ingredient in cognitive intervention and tests the generalizability of its HPA modulation in direct (CRH) and indirect (a social stress test) models of hypothalamic activation. In a new RO1 (PI, scored 215 on 1st review, pilot data being collected), Dr. Abelson will use a phobic exposure model to test the hypothesis that presence of control over a threat influences HPA axis activation more significantly than the intensity of distress generated by the threat. Though the focus is psychoneuroendocrine, this grant includes a neuroimaging component, to allow Dr. Abelson and his researchers to test the hypothesis that control is mediated in a top-down fashion by prefrontal regions and can override bottom-up hypothalamic activation generated by fear.

Recent and Significant Publications:

Abelson JL, Liberzon I, Khan S, Young EA: Cognitive modulation of the endocrine stress response to a pharmacological challenge in normal and panic disorder subjects. *Arch Gen Psychiatry* 62:668-675, 2005.

Abelson JL, Curtis GC, Sagher O, Albuher RC, Harrigan M, Taylor SF, Martis B, Giordani B: Deep brain stimulation for refractory obsessive compulsive disorder. *Biol Psychiatry* 57:510-516, 2005.

Khan S, Liberzon I, Abelson JL: Effects of propranolol on symptom and endocrine responses to pentagastrin. *Psychoneuroendocrinology* 29:1163-1171, 2004.

Alpers GW, Abelson JL, Wilhelm FH, Roth WT: Salivary cortisol responses to exposure treatment in driving phobics. *Psychosom Med* 65:679-687, 2003.

Abelson JL, Weg JG, Nesse RM, Curtis GC: Persistent respiratory irregularity in patients with panic disorder. *Biol Psychiatry* 49:588-595, 2001.

Service: Dr. Abelson is a respected clinician and is sought out as a clinician and teacher because of his integrated expertise in both psychosocial and psychopharmacological treatments. This interdisciplinary perspective characterizes the Anxiety Disorders Treatment Clinic, which Dr. Abelson has directed for the past nine years, sustaining its national reputation as one of the leading programs in the country.

External Review:

Reviewer A: “I consider Dr. Abelson a brilliant scientist, with the exceptional ability to conceptualize and integrate knowledge from different disciplines....Dr. Abelson gained an excellent reputation in anxiety research....Presently, I would rank him among the top 3% of researchers in this area.”

Reviewer B: “Dr. Abelson’s work is truly unique in its ability – which stems from his own remarkable clinical capacity – to bridge the biological and psychological worlds in psychiatry. He has, without a doubt, attained national and international prominence for his work in this area....It is my opinion that Dr. Abelson is in the upper echelon of neurobiologically oriented anxiety researchers...”

Reviewer C: “Overall, Dr. Abelson would be highly valued as a professor within any Department of Psychiatry. He is an exemplary scholar, teacher and clinician and he would certainly meet criteria for promotion to full Professor within our own department (should we ever have the good fortune to recruit him).”

Reviewer D: “Dr. Abelson’s work has certainly impacted the field in a highly significant way....Dr. Abelson is both a nationally and internationally recognized expert in the area of anxiety disorder research, with a strong record of scholarly and creative abilities. Dr. Abelson has shown continued, if not increased, productivity over the last five years, with many articles in high impact journals that are read internationally.”

Reviewer E: “He is an outstanding psychiatrist, an internationally known expert on the physiology of anxiety, the author of numerous peer-reviewed, often cited papers, and the recipient of significant research funding.”

Reviewer F: “He is one of the few outstanding investigators who bridges psychological and physiological expertise....His numerous presentations and scholarly papers are lucid, informative, critical and well balanced....To sum up, Dr. Abelson is now and will continue to be an outstanding, productive member of your department.”

Reviewer G: “He is a leader in the field of anxiety disorder research, with national and international recognition....He has always published at a very high rate in top journals and continues to do this.”

Summary of Recommendation:

Dr. Abelson and his research group have made considerable progress in basic and clinical research that is catalyzing great advances in clinical neuroscience. He is co-lead with Dr. Liberzon in expanding the Trauma, Stress and Anxiety Research Group, working closely with a very successful Neuroimaging Laboratory. The success of Dr. Abelson's research will improve our clinical efficacy by helping us discover more specific psychological and pharmacological interventions that can directly enhance the effectiveness of cognitive control circuits. I enthusiastically recommend his promotion to Professor of Psychiatry, with tenure.



Allen S. Lichter, M.D., Dean
*Newman Family Professor
of Radiation Oncology*

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