

PROMOTION RECOMMENDATION  
The University of Michigan  
College of Literature, Science, and the Arts

Brandon J. Aragona, assistant professor of psychology, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of psychology, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	2004	Florida State University
M.S.	2001	Florida State University
B.A.	1999	West Virginia University

Professional Record:

2008 – present	Assistant Professor, Department of Psychology, University of Michigan
2004 – 2008	Post-doctoral Fellow, Department of Psychology, University of North Carolina, Chapel Hill

Summary of Evaluation:

Teaching – Professor Aragona has a strong record of teaching having successfully taught a large lecture course (Introduction to Biopsychology) with solid ratings. He also regularly teaches upper-level undergraduate courses on topics related to his research and students have consistently given him exceptional ratings in those courses as well. In particular, he developed a new course called the Biopsychology of Cooperation that recently has been added to the standard curriculum. Professor Aragona’s record of informal mentoring is also very strong. He has mentored three Ph.D. students and fourteen undergraduate honors students, two of whom have won the Pilsbury Award (the department’s highest award) for honors theses.

Research – Professor Aragona has done some of the most important research on the neural mechanisms underlying social bonding. He has also made important contributions to our understanding of the neural basis of drug addiction, demonstrating for example that although cocaine and cocaine-related cues both lead to the release of dopamine in the brain’s reward circuit, they activate different parts of the circuit. Most recently, he integrated these two lines of work and has shown that drug use interferes with pair bond formation and that animals with strong pair bonds are less vulnerable to drug addiction. Professor Aragona has an exceptional record of publishing outstanding research in first-rate journals and has a very good citation rate. He has also received funding from federal grants to support his research. As further evidence of the impact of his work, Professor Aragona received the 2013 Frank A. Beach Young Investigator Award in Behavioral Neuroendocrinology from the Society for Behavioral Neuroendocrinology.

Recent and Significant Publications:

“Rapid dopamine transmission within the nucleus accumbens dramatically differs following morphine and oxycodone delivery,” with C. M. Vander Weele, et al., *European Journal of Neuroscience*, 40(7), 2014, pp. 3041-3054.

“Mu-opioid receptors within subregions of the striatum mediate pair bond formation through parallel yet distinct reward mechanisms,” with S. L. Resendez, et al., *Journal of Neuroscience*, 33(21), 2013, pp. 9140-9149.

“Aversive stimuli differentially modulate real-time dopamine transmission dynamics within the nucleus accumbens core and shell,” with A. Badrinarayan, et al., *Journal of Neuroscience*, 32(45), 2012, pp. 15779-90.

“Kappa-opioid receptors within the nucleus accumbens shell mediate pair bond maintenance,” with S. L. Resendez, et al., *Journal of Neuroscience*, 32(20), 2012, pp. 6771-6784.

Service – Professor Aragona has a solid record of service locally and to the wider community. He has regularly served on departmental committees that include Admissions, Colloquia, Academic Affairs, Awards, Diversity, and the Augmented Executive Committee. Professor Aragona reviews submissions for prominent journals in his field and has organized national meetings related to voltammetry methods. Most notably, he has made substantial outreach efforts to high school students especially from low SES backgrounds both in Ann Arbor and in his native state of West Virginia to encourage them in their academic and scientific aspirations.

#### External Reviewers:

##### Reviewer (A)

“I would characterize Brandon’s research as being at the intersection of the neuroscience of affiliation and the neuroscience of addiction... In addition to being a well-recognized and creative scientist, Brandon has been a great mentor... Based on my evaluation of his scholarship and record, I can say without doubt that Brandon would receive tenure at my institution. In fact, we tried not too subtly to steal him from Michigan a couple of times.”

##### Reviewer (B)

“Obviously, the role of ‘dopamine in reward’ is a very crowded field dominated by many senior scientists. It’s too soon to say whether he will become a dominant leader in that field. Even among his peers, there are many rising stars defining the effects of dopamine on the neural circuitry of reward. His specific contribution in the area of social bonding is much more clear: in this area of research he is one of the important leaders doing creative and original studies.”

##### Reviewer (C)

“His standing in the field is excellent, and is justified by the breadth of his training, the uniqueness of his insights, his passionate approach and the quality of his research outputs. I hope he has success in renewing grant funding in the area, as it would appear that he is currently without grant funding as PI. Dr[.] Aragona’s name would be on a list of scientists who have made the most significant contributions to the field.”

##### Reviewer (D)

“Brandon’s multifaceted research program addresses important and innovative questions about the normal interplay between of different brain regions interconnected with dopamine and opioid systems that complements a second stream focusing on the neural mechanisms underlying pair bonding. This basic research is impressive in its own right, but its real impact is on how it informs the field on how perturbations in these circuits may underlie a variety of psychiatric disorders.”

Reviewer (E)

“I consider him as a leading expert in behavioral functions of the nucleus accumbens... Dr. Aragona and his students also made important contributions in social attachment. Little is known about neural mechanisms of social attachment, because only a handful of researchers are currently working on the field, and Dr. Aragona is one of few... In summary, Dr. Aragona has made important contribution to the neuroscience community, contributions worthy of promotion.”

Reviewer (F)

“I would describe Brandon’s standing in his field as very strong. He has established himself as an authority on the dopamine system, motivational and affective processing and social interactions.... In addition, Brandon’s views on the most effective techniques for recording changes in dopamine dynamics over long periods of time using voltammetry in freely moving rats are widely regarded as authoritative.”

Reviewer (G)

“It is apparent that Dr. Aragona is very sophisticated in terms of theoretical and technical approaches to behavioral neuroscience, neurochemistry, and psychopharmacology. He has done some excellent work with voltammetry methods, and his studies have yielded important results... The publication list is noteworthy in itself, but what is most noteworthy is the large number of publications that are in the best journals in our field. Dr. Aragona’s publication record has been outstanding...”

Reviewer (H)

“Overall, I find Brandon’s research program to be on the leading edge of mechanistic understanding of motivated behavior and reward, cutting across different behaviors and rewards. His work challenges existing canons and offers new and testable conceptual frameworks in their place. His papers demonstrate a sophisticated grasp of motivated behaviors and their underlying neural circuits. His research is scientifically rigorous and intellectually compelling. I consider his contributions to be among the best of his peers in behavioral neuroscience.”

Summary of Recommendation:

Professor Aragona has excelled research, teaching, and service since his arrival at Michigan and has been a valuable contributor to the Department of Psychology’s mission. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Brandon J. Aragona be promoted to the rank of associate professors of psychology, with tenure, College of Literature, Science, and the Arts.



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Andrew D. Martin, Dean  
Professor of Political Science and Statistics  
College of Literature, Science, and the Arts

May 2016