

Alexandra G. DiFeliceantonio, PhD

Assistant Professor
Fralin Biomedical Research Institute at VTC
Department of Human Nutrition, Food, and Exercise, Virginia Tech
contact: dife@vtc.vt.edu

EDUCATION AND PAST POSITIONS

Associate Research Scientist Yale University School of Medicine, Psychiatry Modern Diet and Physiology Research Center at Yale, Dana M Small	2018-2020
Visiting Post-Doctoral Fellow Max Planck Institute for Metabolism Research Translational Neurocircuitry Group, Marc Tittgemeyer	2013-2020
Post-Doctoral Fellow Icahn School of Medicine at Mount Sinai The Kenny Laboratory, Paul Kenny	2017- 2020
Post-Doctoral Fellow John B. Pierce Laboratory at Yale University Department of Psychiatry, Yale School of Medicine Neuropsychology of Flavor and Feeding, Dana M Small	2013-2018
Graduate Student University of Michigan Affective Neuroscience Laboratory, Kent Berridge	2008-2013

PUBLICATIONS

Published and in press publications:

1. Wall KM, Farruggia MC, Perszyk EE, Kanyamibwa A, Fromm S, Davis XS, Dalenberg JR, **DiFeliceantonio AG**, Small DM. (2020) No evidence for an association between obesity and food liking, *International Journal of Obesity*.
2. Small DM, **DiFeliceantonio AG**. (2019) Processed food and food reward. *Science*. 363(6425):346-347
3. Howe, WM*, Gritton, HJ*, Romano, MF*, **DiFeliceantonio, AG**, Zemel, D., Bucklin, M., Han, X. (2019) Unique contributions of cholinergic and parvalbumin interneurons in organizing striatal networks during movement, *Nature Neuroscience*. 22(4):586-597 * equal contribution

4. **DiFeliceantonio AG**, Small DM. (2019) Dopamine and diet-induced obesity: 10 years later. *Nature Neuroscience*. 22(1):1-2.
5. Edwin Thanarajah, S*, Backes, H*, **DiFeliceantonio AG**, Albus, K, Cremer AL, Hanssen, R, Lippert, RN, Cornely, OA, Small, DM., Brüning, JC, Tittgemeyer, M. (2018) Food intake recruits segregated orosensory and post-ingestive dopaminergic neural circuitries to affect eating desire, *Cell Metabolism*. S1550-4131(18)30743-5 *equal contribution
6. **DiFeliceantonio AG**, Kenny PJ (2018) Melanocortin 4 receptors switch reward to aversion. *Journal of Clinical Investigation*. 128: 2757-2759
7. **DiFeliceantonio, AG**, Coppin, G, Rigoux, L, Edwin Thanarajah, S, Dahger, A, Tittgemeyer, M, Small DM (2018). Supra-additive effects of combining fat and carbohydrate on food reward, *Cell Metabolism*. 28(1):33-44.
8. **DiFeliceantonio AG** and Berridge, KC (2016). Dorsolateral neostriatum contribution to incentive salience: Opioid or dopamine stimulation makes one reward cue more motivationally attractive than another. *European Journal of Neuroscience*. 43: 1203–1218.
9. Richard JM, Castro DC, **DiFeliceantonio AG**, Robinson MJ, Berridge KC (2013) Mapping brain circuits of reward and motivation: in the footsteps of Ann Kelley. *Neuroscience and Biobehavioral Reviews* 37:1919-1931.
10. **DiFeliceantonio AG**, Mabrouk OS, Kennedy RT, Berridge KC (2012) Enkephalin surges in dorsal neostriatum as a signal to eat. *Current Biology* 22:1918-1924.
11. **DiFeliceantonio AG**, Berridge KC (2012) Which cue to 'want'? Opioid stimulation of central amygdala makes goal-trackers show stronger goal-tracking, just as sign-trackers show stronger sign-tracking. *Behavioral Brain Research* 230:399-408.
12. McGinty VB, Hayden BY, Heilbronner SR, Dumont EC, Graves SM, Mirrione MM, du Hoffmann J, Sartor GC, Espana RA, Millan EZ, **DiFeliceantonio AG**, Marchant NJ, Napier TC, Root DH, Borgland SL, Treadway MT, Floresco SB, McGinty JF, Haber S (2011) Emerging, reemerging, and forgotten brain areas of the reward circuit: Notes from the 2010 Motivational Neural Networks conference. *Behavioral Brain Research* 225:348-357.
13. Berridge KC, Ho CY, Richard JM, **DiFeliceantonio AG** (2010) The tempted brain eats: pleasure and desire circuits in obesity and eating disorders. *Brain Research* 1350:43-64.
14. Schramm-Sapyta NL, **DiFeliceantonio AG**, Foscue E, Glowacz S, Haseeb N, Wang N, Zhou C, Kuhn CM (2010) Aversive effects of ethanol in adolescent versus adult rats: potential causes and implication for future drinking. *Alcohol: Clinical and Experimental Research* 34:2061-2069.

Submitted manuscripts:

1. Fromm S, Perszyk E, Kanyamibwa A, Wall K, Hutelin Z, Trinh J, Green B, Flack K, **DiFeliceantonio AG**, Small DM. Derivation and development of the MacroPics food picture set, under review, *Appetite*.
2. Smith ACW*, Jonkman S*, **DiFeliceantonio AG**, O'Connor RM, Romano MF, Everitt BJ, Kenny PJ. Dorsolateral striatum regulates new learning. *equal contribution

CONFERENCE PRESENTATIONS

Oral Presentations

1. **DiFeliceantonio, AG***, Coppin, G, Rigoux, L, Edwin Thanarajah, S, Dahger, A, Bruening, JC, Tittgemeyer, M, Small DM. (2018) When a calorie is not a calorie: fat and carbohydrate combinations potentiate measures of reinforcement independently of caloric load. Society for Neuroscience Annual Meeting, San Diego, CA
2. **DiFeliceantonio, AG***, Edwin Thanarajah, S, Hess, M, Albus, K, Small DM, Tittgemeyer, M (2018). The effect of a 12-week high-fat diet on brain and behavior in healthy humans. Society for Ingestive Behavior Annual Meeting, Fort Meyers, Florida.
3. **DiFeliceantonio, AG***, Coppin, G, Rigoux, L, Edwin Thanarajah, S, Dahger, A, Bruening, JC, Tittgemeyer, M, Small DM. (2016) When a calorie is not a calorie: fat and carbohydrate combinations potentiate measures of reinforcement independently of caloric load. Society for Ingestive Behavior Annual Meeting, Porto, Portugal.
4. **DiFeliceantonio, AG*** and Berridge KC (2013) Opioid codes and causes of intense motivation in the dorsomedial neostriatum. Eastern Psychological Association Annual Meeting, NYC.
5. Gottlieb, DA*, **DiFeliceantonio, AG** (2012) Comparing habit learning and goal directed behavior in adult and adolescent rat. Eastern Psychological Association Annual Meeting, NYC.
6. **DiFeliceantonio, AG*** and Berridge, KC (2011) The dorsolateral neostriatum as a generator of incentive salience. European Behavioral Pharmacology Society meeting, Amsterdam.
*Speaker

AWARDS AND HONORS

Travel Award awarded by NIDDK Neuroimaging and Modulation in Obesity and Diabetes 10 th Anniversary Meeting	2019
Promising Young Investigator Travel Award awarded by the Office of Postdoctoral Affairs at Mount Sinai	2018
Recipient of predoctoral training grant T32 DA007267 awarded by University of Michigan Substance Abuse Research Center.	2011-2013
Travel award recipient for the European Behavioral Pharmacology Society meeting	2011
Recipient of travel award for Motivational Neuronal Networks Conference	2010
NIDA predoctoral training grant 5T32DA007281-14	2008-2009
Recipient of the Rackham Graduate School Travel Grant	2009-2011

TEACHING AND MENTORING EXPERIENCE

Teaching Experience:

Guest Lecturer BSR 1707, Behavioral and Cognitive Neuroscience “Incentive Saliency, ‘liking’ vs ‘wanting’”	2018, 2019
Graduate Student Instructor Psychology 303, Research Methods in Psychology.	2012
Graduate Student Instructor	2010

Psychology 203, Introduction to Biopsychology
Graduate Student Mentor
Psychology 203, Introduction to Biopsychology

2009

Mentoring Experience:

Mentor for the Lloyd Sherman Scholars Program 2018-2019

Purpose: To engage High School young men of color in biomedical science enrichment activities that prepares them with laboratory research skills and fosters an interest in science and the development of a scientist identity.

PEER REVIEW

NeuroImage, Chemical Senses, European Journal of Neuroscience, Diabetologia, Cognition and Emotion, Appetite, Scientific Reports, International Journal of Obesity, Obesity, Journal of Neuroscience (ad hoc), Proceedings of the National Academy of Sciences (ad hoc)

MEDIA APPEARANCES AND CONSULTING

Scientific American: <http://www.scientificamerican.com/article/simply-irresistible-overeating/>

The List TV: <http://www.thelisttv.com/the-list/3-sweet-ways-to-stop-your-chocolate-addiction>

Scientific American Podcast: <https://www.scientificamerican.com/podcast/episode/fat-carb-combo-is-a-potent-one-two-punch/>

Consulted as addiction neuroimaging expert for upcoming film “[Dreamland](#)”