KRISTINA MICHELE RAPUANO, PH.D.

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Citizenship: U.S.A.

EDUCATION & TRAINING

2018–present	**Postdoctoral Fellow** Department of Psychology, Yale University, New Haven CT
2012–2018	**Ph.D.**, Cognitive Neuroscience Dartmouth College, Hanover NH
2007–2010	**B.S.**, Psychology: Neuroscience concentration Pennsylvania State University, University Park PA *Summa cum laude*, GPA: 3.96

AWARDS & FELLOWSHIPS

2019	**Travel Awardee**, Flux Congress
2018	**Awardee**, William M Smith Promise Award
2018	**Department Nominee**, Hannah Croasdale Award
2016	**Fellow,** NSF Graduate Research Opportunities Worldwide (GROW) fellowship
2015	**Poster Award**, Dartmouth Integrative Biology Symposium
2015	**Teaching Award**, Outstanding Graduate Student TA, Dartmouth College
2014	**Presentation Award**, Social Cognitive Neuroscience summer school, SISSA, Italy
2014 – 2017	**Fellow**, National Science Foundation Graduate Research Fellowship
2014	**Teaching Award**, Outstanding Graduate Student TA, Dartmouth College
2013	**Honorable mention**, National Science Foundation Graduate Research Fellowship
2010 – 2012	**Fellow,** Intramural Research Training Award (IRTA), National Institutes of Health
2010	**Highest Distinction** (top 2%), Penn State University
2007 – 2010	**Dean's List**, Penn State University
2009 – 2010	**Member**, Psi Chi National Psychology Honor Society, Penn State University

RESEARCH POSITIONS

2018 – present	**Yale University**, New Haven CT
	Postdoctoral researcher
	Mentor: Prof. BJ Casey

2012 – 2018   **Dartmouth College**, Hanover NH
Pre-doctoral researcher
Mentor: Prof. Luke Chang
Previous mentors: Former Profs. William Kelley, Todd Heatherton

2016   **University of Oxford & Aarhus University**, Oxford UK & Aarhus DK
NSF Graduate Opportunities Worldwide (GROW) fellow
Mentor: Prof. Morten Kringelbach

2010 – 2012   **National Institute of Mental Health**, NIH, Bethesda MD
Intramural Research Fellow
Mentors: Drs. Alex Martin, Kyle Simmons

Summer 2009   **West Virginia University**, Morgantown WV
Summer Undergraduate Research Intern
Mentor: Prof. James Lewis

2008 – 2010   **The Pennsylvania State University**, University Park PA
Undergraduate research assistant
Mentors: Profs. William Ray, Peter Arnett, Teresa Vescio

PUBLICATIONS

Rapuano, K.M., Rosenberg, M.D., Maza, M.T., Greene, A., Horien, C., Scheinost, D., Constable, R.T., Casey, B.J. (2020). Connectome-based prediction of risk for future substance use in youth. *Developmental Cognitive Neuroscience, 100878.*

Conley, M.I., Skalaban, L., **Rapuano, K.M.**, Gonzalez, R., Laird, A., Dick, A.S., Sutherland, M.T., Watts, R., Casey, BJ. (*under review*). Altered hippocampal microstructure and function in children who experienced Hurricane Irma.

Rapuano, K.M., Laurent, J.S., Hagler, D.J., Hatton, S.N., Thompson, W.K., Jernigan, T.L., Dale, A.M., Casey, B.J., Watts, R. (2020). Nucleus Accumbens Cytoarchitecture Predicts Weight Gain in Children. *Proceedings of the National Academy of Sciences.*

Rosenberg, M.D., Martinez, S.A., **Rapuano, K.M.**, Conley, M.I., Cohen, A.O., Cornejo, M.D., Hagler, D.J., Anderson, K.M., Wager, T.D., Feczko, E. and Earl, E. Fair, D.A., Barch, D.M., Watts, R., Casey, B.J. (2020). Behavioral and neural signatures of working memory in childhood. *Journal of Neuroscience.*

Courtney, A.L., Casey, B.J., **Rapuano, K.M.** (2020). A neurobiological model assessing alcohol marketing effects on underage drinking. *Journal of Studies on Alcohol and Drugs, Supplement, (s19), 68-80.*

Masterson, T.D., Bobak, C., **Rapuano, K.M.**, Shearrer, G., & Gilbert-Diamond, D. (2019). Association between regional brain volumes and BMI z-score change over one year in children. *PLOS One 14*(9): e0221995.

Figueroa, C.A., Cabral, J, Mocking, R.J.T., **Rapuano, K.M.**, van Hartevelt, T., Schene, A.H., Kringelbach, M.L., Ruhé, H.G. (2019). Altered ability to access a clinically relevant control network in patients remitted from major depressive disorder. *Human Brain Mapping, 40*(9), 2771-2786.

Stevner, A.B.A., Vidaurre, D., Cabral, J., **Rapuano, K.M.**, Nielsen, S.F.V., Tagliazucchi E., Laufs H., Deco G., Woolrich M.W., Van Someren E., Kringelbach M. L. (2019). Discovery of key whole-brain transitions and dynamics during human wakefulness and non-REM sleep. *Nature Communications 10*(1), 1035.

Chang, L.J., Jolly, E., Cheong, J.H., **Rapuano, K.M.**, Greenstein, N., Chen, P.H.A., Manning, J.R. (2018). Endogenous variation in ventromedial prefrontal cortex state dynamics during naturalistic viewing reflects affective experience. *bioRxiv*, 487892.

Lord, L.D., Expert, P., Atasoy, S., Roseman, L., **Rapuano, K.M.**, Lambiotte, R., Nutt, D.J., Deco, G., Carhart-Harris, R.L, Kringelbach, M.L., Cabral, J. (2018). Dynamical exploration of the repertoire of brain networks at rest is modulated by psilocybin. *NeuroImage*, 199, 127-142.

Courtney, A.L., PeConga, E., Wagner, D.D., **Rapuano, K.M.** (2018). Calorie information and dieting status modulate reward and control activation in response to food images. *PLOS One, 13*(11), e0204744.

Courtney, A.L., **Rapuano, K.M.**, Sargent, J.D., Heatherton, T.F., Kelley, W.M. (2018). Brain Reward Responses Are Behaviorally Relevant. *Journal of Studies on Alcohol and Drugs, 79*(1), 41-42.

Courtney, A.L., **Rapuano, K.M.**, Sargent, J.D., Heatherton, T.F., Kelley, W.M. (2018). Reward system activation in response to alcohol advertisements predicts underage drinking. *Journal of Studies on Alcohol and Drugs, 79*(1), 29-38.

Rapuano, K.M., Zieselman, A.L., Kelley, W.M., Sargent, J.D., Heatherton, T.F., Gilbert-Diamond, D. (2017). Genetic risk for obesity predicts nucleus accumbens size and responsivity to real-world food cues. *Proceedings of the National Academy of Sciences, 114*(1), 160-165.

Gilbert-Diamond, D., Emond J., Lansigan R, **Rapuano, K.M.**, Kelley, W.M., Heatherton, T.F., Sargent J.D. (2016). Television food advertisement exposure and FTO genotype in relation to excess consumption in children. *International Journal of Obesity, 41(*1), 23-29.

Kringelbach, ML. & **Rapuano, K.M.** (2016) Time in the orbitofrontal cortex. *Brain, 139*(4): 1010-1013.

Rapuano, K.M., Huckins, J.F., Sargent, J.D., Heatherton, T.F., Kelley, W.M. (2015). Individual Differences in Reward and Somatosensory-Motor Brain Regions Correlate with Adiposity in Adolescents. *Cerebral Cortex, 26*(6), 2602-2611.

Simmons, W.K., **Rapuano, K.M.**, Kallman, S.J., Ingeholm, J.E., Miller, B., Gotts, S.J., Hall, K.D., Martin, A. (2014). Category-specific integration of homeostatic signals in caudal, but not rostral, human insula. *Nature neuroscience, 16*(11), 1551-1552.

Simmons, W.K., **Rapuano, K.M.**, Ingeholm, J.E., Avery, J., Kallman, S.J., Hall, K.D., Martin, A. (2013). The ventral pallidum and orbitofrontal cortex support food pleasantness inferences. *Brain Structure & Function, 219*(2), 473-83.

Talkington, W.J., **Rapuano, K.M.**, Hitt, L., Frum, C.A., Lewis, J.W. (2012). Humans mimicking animals: A cortical hierarchy for human vocal communication sounds. *The Journal of Neuroscience, 32*(23):8084-8093.

Lewis, J.W., Frum, C.A., Brefczynski-Lewis, J.A., Talkington, W.J., Walker, N.A., **Rapuano, K.M.**, Kovach, A.L. (2011). Cortical network differences in the sighted versus early blind for recognition of human-produced action sound. *Human Brain Mapping, 32*(12), 2241-2255.

Manuscripts in preparation

Rapuano, K.M., Rosenberg, M.D., Maza, M.T., Greene, A., Horien, C., Scheinost, D., Constable, R.T., Casey, B.J. Network-based longitudinal prediction of future substance use in youth.

Rapuano, K.M., Casey, B.J., Watts, R. Longitudinal models of nucleus accumbens cytoarchitecture and the emergence of pediatric obesity.

Rosenberg, M.D.*, **Rapuano, K.M***., Conley, M.I., Maza, M., Woodman, K., Martinez, S.A., Watts, R., Casey, B.J. Reproducibility of task-based patterns of brain activity for the ABCD tasks across multiple time points in adults. **co-first author*

Rapuano, K.M., Tejavibulya, L., Mayer, L., Casey, B.J. Genetic risk for obesity influences behavioral and neural responses during a food-specific go/no-go task.

Rapuano, K.M., Courtney, A.L., Chang, L.J. Real-world goal-relevance organizes neural responses to naturalistic alcohol cues.

Rapuano, K.M., Hyon, R., Christian, B.M., Lopez, R.B., Nastase, S.A. fMRI responses to naturalistic clips of appetitive actions.

Chapters

Ashburn, S., Abugaber, D., Antony, J., Bennion, K., Bridwell, D., Cardenas-Iniguez, C., Doss, M., Fernández, L., Huijsmans, I., Krisst, L., Lapate, R., Layher, E., Leong, J., Li, Y., Marquez, F., Munoz-Rubke, F., Musz, L., Patterson, T., Powers, J., Proklova, D., **Rapuano, K.M.**, Robinson, S., Ross, J., Samaha, J., Sazma, M., Stewart, A., Stickel, A., Stolk, A., Vilgis, V., Zirnstein, M. (2020). Towards a socially responsible, transparent, and reproducible cognitive neuroscience. In D. Poeppel, M. Gazzaniga, & R. Mangun, The Cognitive Neurosciences VI. Cambridge, MA: MIT Press.

INVITED TALKS

Dec 2020   **Nathan Kline Institute**, NYU Works in Progress seminar series
Nov 2020   **Yale University**, Levy Decision Neuroscience Lab meeting
Mar 2020*   **Yale University**, McPartland Lab science meeting
Mar 2020*   **Bard College**, Psychology Colloquium
Jan 2020   **Yale University**, Appetitive neuroimaging seminar series
Sep 2019   **University of Connecticut**, Psychology research seminar series
Mar 2019   **Yale University**, Magnetic Resonance Research Center seminar series
Nov 2017   **Yale University**, Fundamentals of the Adolescent Brain lab meeting
Nov 2015   **Dartmouth Hitchcock Medical Center**, Cancer Control seminar series
Dec 2014   **Dartmouth College**, Cancer Control Center Walter Willet meeting
Feb 2014   **Dartmouth Hitchcock Medical Center**, Neuroscience Day
Jan 2014   **Dartmouth College**, Guardians Social Area Seminar Series
Sep 2013   **Dartmouth College**, Social Brain Sciences Brown Bag
Oct 2011   **NIMH/NIH**, Laboratory of Brain and Cognition Meeting
Aug 2009   **West Virginia University**, Center for Advanced Imaging seminar series
             rescheduled due to COVID-19

CONFERENCE PRESENTATIONS

Posters

Rapuano, K.M., Rosenberg, M.D., Maza San Vicente, M.T., Greene, A., Horien, C., Scheinost, D., Constable, R.T., Casey, B.J. Behavioral and neural predictors of vulnerability for risky behaviors in childhood. *Society for Neuroscience*, Chicago IL. October 2019.

Rapuano, K.M., Rosenberg, M.D., Greene, A., Horien, C., Scheinost, D., Constable, R.T., Casey, B.J. Predicting vulnerability to health-risk behaviors in youth. *Flux Congress,* New York NY. August 2019. *(travel awardee)*

Rapuano, K.M., Rosenberg, M.D., Watts, R., Casey, B.J. Characterizing the emergence of circuitry underlying cognitive control and reward motivation in youth. *Organization for Human Brain Mapping*, Rome, Italy. June 2019.

Rapuano, K.M., Courtney, A.L., Sargent, J.D., Chang, L.J. Real world goal-relevance organizes neural responses to naturalistic alcohol cues. *Social & Affective Neuroscience society annual meeting*, Miami, FL. May 2019.

Rapuano, K.M., Courtney, A.L., Nastase, S.A., Sargent, J.D., Heatherton, T.F., Chang, L.J. Neural responses to naturalistic alcohol cues differ by real-world contextual relevance. *Organization for Human Brain Mapping*, Singapore. June 2018.

Rapuano, K.M., Heatherton, T.F., Kelley, W.M. Sex-differences in orbitofrontal cortex representation during evaluations of facial attractiveness. *Social & Affective Neuroscience Society annual meeting*, Los Angeles, CA. March 2017.

Rapuano, K.M., Heatherton, T.F., Kelley, W.M. Males and females evaluate facial attractiveness using different cognitive and affective strategies. *Society for Neuroscience annual meeting*, San Diego, CA. November 2016.

Rapuano, K.M., Chavez, R.S., Decker, M.E., Gilbert-Diamond, D., Sargent, J.D., Heatherton, T.F., Kelley, W.M. Structural morphometry and connectivity in the human reward system predict obesity metrics. *The Obesity Society annual meeting*, New Orleans, LA. November 2016.

Rapuano, K.M., Zieselman, A.L., Kelley, W.M., Sargent, J.D., Heatherton, T.F., Gilbert-Diamond, D. Genetic risk for obesity enhances reward responsivity to real-world food cues in children. *Social & Affective Neuroscience Society annual meeting*, New York, NY. April 2016.

Rapuano, K.M., Chavez, R.S., Gilbert-Diamond, D., Heatherton, T.F., Kelley, W.M. Structural morphometry and connectivity in the human reward system predict obesity metrics. *Dartmouth Integrative Biology Symposium*, Hanover NH. April 2015. (***poster award***)

Rapuano, K.M., Courtney, A.L., Sargent, J.D., Heatherton, T.F., Kelley, W.M. Brand preference and percent body fat modulate neural responses to food advertisements. *Cognitive Neuroscience Society annual meeting*, San Francisco CA. March 2015.

Rapuano, K.M., Courtney, A.L., Sargent, J.D., Heatherton, T.F., Kelley, W.M. Brand preference and percent body fat modulate neural responses to food advertisements. *Obesity Society annual meeting*, Boston MA. November 2014.

Rapuano, K.M., Huckins, J.F., Rogers, C., Sargent, J.D., Heatherton, T.F., Kelley, W.M. Fast food commercials differentially engage sensorimotor and insular cortices in overweight and normal weight adolescents. *Society for Neuroscience*, San Diego CA. November 2013.

Rapuano, K.M., Huckins, J.F., Sargent, J.D., Heatherton, T.F., Kelley, W.M. The influence of social context on neural responses to fast food advertisements. *Dartmouth Integrative Biology Symposium*, Hanover NH. April 2013.

Rapuano, K.M., Simmons, W.K., Ingeholm, J.E., Knuth, N., Hall, K.D. Inferences about food pleasantness modulate activity in the ventral pallidum. *Cognitive Neuroscience Society*,

Chicago IL. April 2012.

Rapuano, K.M., Simmons, W.K., Kallman, S.J, Ingeholm, J.E., Hall, K.D., Martin, A. Taste-localized gustatory cortex responds to viewing pictures of appetizing foods. *NIMH/DIRP Scientific Retreat*, Lancaster PA. May 2011.

Rapuano, K.M., Talkington, W.J., Frum, C.A., Lewis, J.W. Humans mimicking animals: Implications for species-specific vocalization processing in human cortex. *Penn State Psi Chi National Psychology Honor Society Symposium*, 2010.

Symposia

"Predicting vulnerability to health-risk behaviors in youth." *Flux Congress*, New York NY. August 2019. *(travel awardee)*

"Structural morphometry and connectivity in the human reward system predicts obesity metrics." *Society for Neuroscience,* Chicago IL. October 2015.

"Humans mimicking animals: Implications for species-specific vocalization processing in human cortex." *Columbia University Undergraduate Science Symposium,* New York NY, May 2010.

TEACHING EXPERIENCE

F 2020-Sp 2021	**Teaching Assistant/Consultant**, 13-week ABCD-Repronim course *Organizers:* Angie Laird; David Kennedy; Satra Ghosh; JB Poline https://www.abcd-repronim.org/
Sp 2020	**Guest Lecturer**, Bard College Prof. Richard Lopez's Social Neuroscience course
F/Sp 2018-2020	**Guest Lecturer**, Yale University *Advertising to adolescents* Prof. BJ Casey's Adolescent Brain Development course
F 2015 & Sp 2016	**Teaching Assistant**, Dartmouth College *Principles of Human Brain Mapping with fMRI* (William Kelley) Guest lectures: Multivariate pattern analysis; Diffusion Tensor Imaging
Sp 2014	**Teaching Assistant/Lab Instructor**, Dartmouth College *Laboratory in Psychological Science* (Jon Freeman)
W 2014	**Teaching Assistant**, Dartmouth College *Emotion* (Paul Whalen) Guest lecture: Reward & Motivation
F 2008	**Biology Tutor,** The Pennsylvania State University, University Park

MENTORSHIP EXPERIENCE

2019-2021	Kylie Woodman (research assistant)
2020-2021	Miranda Papes (senior thesis)
2020-2021	Brandon Scott (senior thesis)
2020-2021	Eda Naz Dinc (senior thesis)
2019 – 2020	Mila Dorji (senior thesis)
2019	Link Tejavibulya (neuroscience doctoral student)
2018 – 2019	Melanie Grad-Freilich (senior thesis)
2017	Sarah Egner (presidential scholar)
2016 – 2017	Ryan Hyon (honors student, **department thesis award**)
2016 –2016	Serena Zhu (sophomore science scholar)
2015 – 2016	Emma PeConga (honors student, **department thesis award**)
2015 – 2016	Kristina Mani (research assistant, **Neukom scholar award**)
2015 – 2016	Marissa Evans (research assistant)
2014 –2016	Mary Decker (presidential scholar, **Neukom scholar award**)
2014 – 2015	Amanda Zieselman (honors student, **department thesis award**)
2014 – 2015	Stephanie Ng (presidential scholar)
2013 – 2014	Maia Salholz-Hillel (presidential scholar)
2013	Emily Cambern (sophomore science scholar)

SCIENTIFIC CONTRIBUTIONS & SERVICE

2020 – **Organizer**, Innovators in Cognitive Neuroscience seminar series
https://innovatorsincogneuro.github.io/

2020 – 2021 **Organizer**, Research Topics seminar series
Fundamentals of the Adolescent Brain, Yale University

2014 – 2016 **Organizer**, Social Brain Sciences brown bag speaker series
Dartmouth Psychological & Brain Sciences department

2013 – 2015 **Leader**, Graduate Women in Science & Engineering (GWISE)
Dartmouth College

2014 – **Ad-hoc Reviewer**
Cerebral Cortex (5); PLOS One (4); Social Cognitive and Affective Neuroscience (3); NeuroImage (2); Brain Structure and Function (2); Journal of Neuroscience; Obesity; Human Brain Mapping; Developmental Cognitive Neuroscience; Journal of Pediatric Psychology; Cognitive Development; International Journal of Obesity; Journal of Neurophysiology; Clinical Psychological Science
https://publons.com/researcher/1561539/kristina-rapuano/

PROFESSIONAL AFFILIATIONS

Society for Neuroscience   Social & Affective Neuroscience Society
Organization for Human Brain Mapping   Flux Congress

SKILLS

Programming	Python (pandas, scikit-learn, numpy), R, shell scripting
Neuroimaging	AFNI, SPM, FSL, Freesurfer, PyMVPA
Methods	Univariate & multivariate pattern analysis; functional connectivity; restriction spectrum imaging; machine-learning approaches

WORKSHOPS & HACKATHONS ATTENDED

2019	Organization for Human Brain Mapping hackathon
2018	Organization for Human Brain Mapping hackathon
2018	NeuroHackademy, Seattle WA
2018	Kavli Summer Institute in Cognitive Neuroscience, Lake Tahoe CA
2018	SheHacksBoston (world's largest all-female hackathon), Boston MA
2017	Methods in Neuroscience at Dartmouth (MIND), Hanover NH
2017	Kavli Summer Institute in Cognitive Neuroscience, Santa Barbara CA
2014	Social Cognitive Neuroscience Summer School, SISSA, Trieste Italy
2013	fMRI training course, University of Michigan, Ann Arbor MI

GRADUATE COURSEWORK

Measurement & Statistics I, II *(high pass)*	Cognitive Neuroscience
Computational Methods *(high pass)*	Social Neuroscience
Programming for neuroscience	Medical Neuroscience
Brain Evolution *(high pass)*	"Great ideas" in psychology

COMMUNITY INVOLVEMENT & OUTREACH

2020*	**ABCD Yale Site STEM course**, organizer Yale University, New Haven, CT *(*rescheduled due to COVID-19)*
2019	**Faculty & Staff Sexual Misconduct conference**, workshop organizer University of Wisconsin–Madison, Madison WI
	Local outreach with children, young girls & women
2014	The Family Place: GED program for young mothers, Norwich VT
2013	Indian River Middle School, Canaan NH
2014	**"Science Pub" with community members,** presenter Dartmouth College, Hanover NH
2013–2015	**GWISE Science Day,** organizer and activity leader Dartmouth College, Hanover NH