Katherine M. Nautiyal, PhD

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Education

Degree	*Institution*	*Field of Study*	*Completed*
Postdoc	Columbia University Medical Center	Psychiatry and Neuroscience	2018
Ph.D.	Columbia University	Psychology (Behavioral Neuroscience)	2011
M.A.	Columbia University	Psychology (Behavioral Neuroscience)	2008
B.A.	University of Pennsylvania	Psychology	2004
B.S.	University of Pennsylvania	Cognitive and Computer Science	2004

Research Positions

Associate Professor — 2025-current
Department of Psychological and Brain Sciences
Integrative Neuroscience at Dartmouth
Dartmouth College

Assistant Professor — 2018-2025
Department of Psychological and Brain Sciences
Integrative Neuroscience at Dartmouth
Dartmouth College

Postdoctoral Fellow, Assistant Professor of Clinical Neurobiology — 2012-2018
Mentor: Dr. René Hen
Department of Psychiatry, Columbia University Medical Center
Division of Integrative Neuroscience, New York State Psychiatric Institute

Graduate Research Fellow — 2005-2011
Mentor: Dr. Rae Silver
Department of Psychology, Columbia University

Research Assistant, Technician — 2003-2005
Mentor: Dr. Harvey Grill
Feeding Systems Neuroscience Laboratory, University of Pennsylvania

Research Assistant — 2001-2003
Mentors: Drs. Aravind Joshi and Lila Gleitman
Institute for Research in Cognitive Science, University of Pennsylvania

Research Grants and Fellowships

Scholarly Innovation and Advancement Award, Dartmouth College *Developing a mouse model to study the effects of psilocybin on alcohol use*	$49,700	2026-2028
Seed Grant, International Center for Responsible Gaming *Examining the effects of psilocybin on gambling behavior*	$50,000	2025-2026
Neukom CompX Faculty Grant *Imaging and decoding brain-wide serotonin*	$40,000	2025-2026
R01 NIMH126178, NIH *Serotonin modulation of the development of neural circuits underlying reward processing and impulsivity in adolescents*	$2,901,583	2021-2027
K99/R00 NIMH106731, NIH *Dissecting serotonergic and dopaminergic contributions to the neural circuits underlying impulsive behavior*	$1,006,729	2015-2021

NIMH-19-004 Supplement for Advancing Computational Modeling and Data Analytics Relevant to Mental Health, NIH *Computational modeling of the neural encoding of impulsivity*	$93,190	2019-2021
Neukom CompX Faculty Grant *Computational approaches to understanding the neural basis of Impulsivity*	$20,000	2019-2020
NARSAD Young Investigator Award, BBRF *Serotonin modulation of the development of impulsivity in mice and men*	$70,000	2016-2018
Sackler Institute Award *Dissecting the role of the serotonin 1B receptor in aggression*	$50,000	2015-2016
Early Stage Investigator Award, National Center for Responsible Gaming *Developing a mouse model of pathological gambling using an inducible and tissue specific serotonin 1B receptor knock-out*	$147,706	2013-2015
Post-doctoral NRSA Fellowship, NIH F32 MH100888 *Using genetic and optogenetic models to study the role of the serotonin 1B receptor in aggression*	$106,132	2013-2015
Post-doctoral NRSA Institutional Training Grant, NIH T32 MH015174	$45,264	2012-2013
Pre-doctoral NRSA Fellowship, NIH F31 MH084384 *Beyond allergy: Mast cells mediate brain-behavior-immune interactions*	$57,781	2009-2011

Honors and Awards

James Wright Sustaining Faculty Excellence Award	2025
Guarini Graduate Faculty Mentoring Award	2022
Class of 1962 Faculty Fellowship, Dartmouth College	2021
NIMH Biobehavioral Research Award for Innovative New Scientists	2021
Election to Associate Membership of American College of Neuropsychopharmacology (ACNP)	2020
Winter Conference on Brain Research (WBBR) Panel Travel Fellowship	2017
American College of Neuropsychopharmacology (ACNP) Travel Award	2015
Sackler Institute Young Investigator Award	2015
Best Poster Award, National Center for Responsible Gaming Annual Conference	2014
Travel Award for the International Society of Serotonin Research	2014
NIDA Award, Genetics of Addiction Course, Jackson Laboratory	2013
MBL/USP Award, Joint Course in Neural Systems and Behavior	2012
Trainee Scholar Award, Psychoneuroimmunology Research Society	2009, 2011
SfN Graduate Student Travel Award, Society for Neuroscience	2010
Faculty Fellowship, Columbia University	2005-2009

Teaching and Mentoring

Courses in Psychological and Brain Sciences, Dartmouth College	
Behavioral Neuroscience (PSYC 37)	2019W, 2019F, 2022W, 2023F
Neuroscience of Stress (PSYC 50.12)	2020F, 2026S
SfN Annual Meeting Bucci Fellows Seminar (PSYC 86.04)	2022F,2024F, 2026F
Advanced Techniques in Neuroscience (IND 103)	2022F, 2023F, 2024F
Grad Student Ethics Course (PSYC 700)	2025F, 2026F
Courses in the Department of Psychology, Columbia University	
Topics in Neurobiology and Behavior (Seminar)	2012, 2014, 2015
Mind, Brain and Behavior (Intro course)	2011, 2012, 2015
Statistics for Behavioral Scientists (Lab course)	2009
Research Mentoring	
Thesis Advisor of Record for PhD Students	
Yanevith Peña, PhD in Psych and Brain Sciences, Dartmouth College	2025-current

Mitch Turner, PhD in Integrative Neuroscience at Dartmouth	2025-current
Sixtine Fleury, PhD in Psych and Brain Sciences, Dartmouth College	2021-2026
Arati Sharma, PhD in Psych and Brain Sciences, Dartmouth College	2020-2026
Stephanie Desrochers, PhD. Currently postdoc in Flagel Lab, University of Michigan	2018-2023

Other Graduate Students

Mitchell Turner, Rotation Student, IND PhD, Dartmouth College	2025
Matthew Bazan, Rotation Student, IND PhD, Dartmouth College	2025
Anna Lyndaker, Rotation Student, IND PhD, Dartmouth College	2024
Matthew Company, Rotation Student, IND PhD, Dartmouth College	2022
Stephen Pike, Rotation Student, PEMM PhD, Dartmouth College	2021
Simone Evans, Rotation Student, PEMM PhD, Dartmouth College	2020
Jaena Han, co-advised with Rene Hen, PhD in Biology, Columbia University	2016-2021
Lara Boyle, Rotation Student, MD/PhD in Neuroscience, Columbia University	2016
Salomon Muller, Rotation Student, PhD in Biology, Columbia University	2014
Jessica DeLalio, MA in Biotechnology, Columbia University	2012-2013

Undergraduate Students for Thesis or Independent Research Study

40 at Dartmouth College	2018 - current
10 at Columbia University and Barnard College	2006-2018

Postdoctoral and Postbaccalaureate Fellows at Dartmouth

Morgan Hofmeyer, Postbaccalaureate Fellow	2026-current
Catherine Fengler, Postbaccalaureate Fellow	2024-2026
Ruth Albert-Lyons, Postbaccalaureate Fellow	2022-2024
Mitch Spring, PhD, Postdoctoral Fellow	2021-current
Ka Ng, PhD, Postdoctoral Fellow	2020-2025
Min Oh, Postbaccalaureate Fellow	2019-2020
Jun Ho Lee, Postbaccalaureate Fellow	2018-2020

Publications and Presentations

Works in Progress

Fleury, S.**, Chang, L.J., **Nautiyal, K.M.** Identifying factors that contribute to robust behavioral effects of psilocybin in preclinical mouse models. Under review at Psychedelic Medicine

Spring, M.G.[#], Peña, Y.**, **Nautiyal, K.M**. Adding Serotonin as a Director of the Actor-Critic Model. Under review at ACS Chemical Neuroscience.

Sharma A.**, Ng K.H.[#], Manning, J.R., **Nautiyal K.M**. The dorsomedial striatum shows stable representational geometry of goal directed behavior across days despite single-neuron drift. (in prep)

Spring, M.G. [#], Lyndaker, A.**, **Nautiyal, K.M.** Serotonin is differentially released across striatal subregions during reward and aversion. (in prep)

Peer-reviewed publications

Fleury, S.**, Shang, Y.*, **Nautiyal, K.M.** (2026) Serotonin 1B receptors expressed on forebrain excitatory neurons mediate the post-acute anxiolytic response to psilocybin in mice. Psychopharmacology. doi: 10.1007/s00213-026-07184-8. Online ahead of print.

Fleury, S.**, **Nautiyal, K.M.** (2026) Targeting the serotonin 1B receptor for the treatment of depression and anxiety. Expert Opinion on Therapeutic Targets Sep;30(9):923-928

Fleury, S.**, **Nautiyal K.M.** (2026) The non-hallucinogenic serotonin 1B receptor is necessary for the antidepressant-like effects of psilocybin in mice. Molecular Psychiatry.Jul;31(7):4232.

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*undergraduate student advisee, **graduate student advisee, [+]Postbaccalaureate advisee, [#]Postdoctoral advisee

Ng K.H.[#], Sharma A.**, **Nautiyal KM**. (2026) The serotonin 1B receptor modulates striatal activity differentially based on behavioral context. eNeuro. Feb 5;13(2):ENEURO.0413-25.2026.

Dutton A**, Patel CD, Taylor SA, Garland CR, Turnbaugh EM**, Alers-Velazquez R, Mehrbach J, **Nautiyal KM**, Leib DA. (2025) Asymptomatic neonatal herpes simplex virus infection in mice leads to persistent CNS infection and long-term cognitive impairment. PLoS Pathog 21(2): e1012935.

Albert-Lyons, R.[+], Desrochers, S.S.**, Fengler, C.[+], **Nautiyal, K.M**. (2025) Fractionating impulsivity and reward-related phenotypes in adolescent mice. Behavioural Brain Research 480:115396

Spring, M.G.[#], **Nautiyal, K.M.** (2024) Striatal serotonin release signals reward value. Journal of Neuroscience. 44(41):e0602242024

Albert-Lyons, R.[+], Capan, S.*, Ng, K.H.[#], **Nautiyal, K.M**. (2024) Reward value and internal state differentially drive impulsivity and motivation. Behavioural Brain Research 471:115073.

Nautiyal K.M., Yaden D.B. (2023) Does the trip matter? Investigating the role of the subjective effects of psychedelics in persisting therapeutic effects. Neuropsychopharmacology. 48(1):215-216

Carazo Arias, C., Nguyen, P.T., Kass, M.D., Jee, H.J., **Nautiyal, K.M.**, Magalong, V.[*], Coie, L.A., Andreu, V.[+], Gergues, M.M., Khalil, H., Akil,H., Arcego, D.M., Meany, M.J., Anacker, C., Samuels, B.A., Pintar, J.E., Morozova, I., Kalachikov, S., Hen, R. (2022) Contribution of the opioid system to the antidepressant effects of fluoxetine. Biological Psychiatry. 92(12):952-963.

Li, L., Wyler, S., Leon-Mercado, L., Xu, B., Oh, Y., Chen, X., Wan, R., Arnold, A.G., Jia, L., **Nautiyal, K.**, Hen, R., Sohn, J.-W., Liu, C. (2022) Delineating a serotonin receptor pathway for appetite suppression in mice. Journal of Experimental Medicine. 219(8):e20212307

Desrochers, S.S.**, Spring, M.G.[#], **Nautiyal, K.M.** (2022) A role for serotonin in modulating opposing drive and brake circuits of impulsivity. Frontiers in Behavioral Neuroscience 16:791749.

Desrochers, S.S.**, **Nautiyal, K.M.** (2022) Serotonin 1B receptor effects on response inhibition are independent of inhibitory learning. Neurobiology of Learning and Memory. 187:107574.

Han, J.**, Andreu, V.[+], Langreck, C., Pekarskaya, E.A., Grinnell, S.G., Magalong, V.M.*, Pintar, J., Kieffer, B.L., Harris, A.Z., Javitch, J.A., Hen, R., **Nautiyal, K.M.** (2021) Mu Opioid Receptors on Hippocampal GABAergic Interneurons are Critical for the Antidepressant Effects of Tianeptine. Neuropsychopharmacology. 47(7):1387-1397.

Li, Y., Simmler, L.D., Zessen, R.V., Flakowski, J., Wan, J.-X., Deng, F., Li, Y.-L., **Nautiyal, K.M.**, Pascoli, V., and Lüscher, C. (2021). Synaptic mechanism underlying serotonin modulation of transition to cocaine addiction. Science 373, 1252-1256.

Desrochers, S.S.**, Lesko, E.M.*, Magalong, V.M.*, Balsam, P.D., **Nautiyal, K.M.** (2021) A role for reward valuation in the serotonergic modulation of impulsivity. Psychopharmacology. 238(11):3293-3309.

Lee,J.H.[+], Capan, S.*, Lacefield, C., Shea,Y.M.*, **Nautiyal, K.M** (2020) DIY-NAMIC Behavior: A High-Throughput Method to Measure Complex Phenotypes in the Homecage. eNeuro 7(4)

Nautiyal, K.M., Okuda, M., Hen, R., Blanco, C. (2017) Gambling Disorder: An integrative review of animal and human studies. Ann N Y Acad Sci 1394(1):106-127.

Zike, I.D., Chohan, M.O., Kopelman, J.M., Krasnow, E., Flicker, D.*, **Nautiyal, K.M.**, Bubser, M., Kellendonk, C., Jones, C.K., Stanwood, G.D., Tanaka, K.F., Moore, H., Ahmari, S.E., Veenstra-VanderWeele, J. (2017) OCD candidate gene SLC1A1/EAAT3 impacts basal ganglia-mediated activity and stereotypic behavior. Proc Natl Acad Sci U S A 114(22):5719-5724

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[*]undergraduate student advisee, [**]graduate student advisee, [+]Postbaccalaureate advisee, [#]Postdoctoral advisee

Samuels, B.A.[@], **Nautiyal, K.M.**[@], Kruegel, A. C., Levinstein, M.R., Magalong, V.M.*, Gassaway, M.M., Grinnell, S.G., Han, J.**, Ansonoff, M.A., Pintar, J.E., Javitch, J.A., Sames, D., Hen, R. (2017) The behavioral effects of the antidepressant tianeptine require the mu-opioid receptor. Neuropsychopharmacology 42(10):2052-2063 [@]co-first authors

Nautiyal, K.M., Hen, R. (2017) Serotonin receptors in depression: From A to B. F1000 Faculty Reviews 6:123.

Nautiyal, K.M., Wang, S., Wall, M.W., Ahmari, S.E., Balsam, P.D., Blanco, C., Hen, R. (2017) Genetic and modelling approaches reveal distinct components of impulsive behavior. Neuropsychopharmacology 42(6):1182-1191.

Nautiyal, K.M., Tritschler, L., Ahmari, S.E. David, D.J., Gardier, A.M., Hen, R. (2016) A lack of serotonin 1B autoreceptors results in a decrease in anxiety and depression-related behaviours. Neuropsychopharmacology 41(12):2941-2950.

Nautiyal, K.M., Tanaka, K.F., Barr, M.M.*, Tritschler, L., LeDantec, Y., David, D.J., Gardier, A.M., Blanco, C., Hen, R., Ahmari, S.E. (2015) Distinct circuits underlie the effects of serotonin 1B receptors on aggression and impulsivity. Neuron 86(3):813-26.

Knolhoff, A.M., **Nautiyal, K.M.,** Nemes P., Kalachikov, S., Morozov, I., Silver, R., Sweedler, J.V. (2013) Combining small-volume metabolomic and transcriptomic approaches for assessing brain chemistry. Anal Chem 85(6):3136-43.

Donaldson, Z.R., **Nautiyal, K.M.,** Ahmari, S.E., Hen, R. (2013) Genetic approaches for understanding the role of serotonin receptors in mood and behavior. Curr Opin Neurobiol 23:1-8.

Nautiyal, K.M., Dailey, C., Jahn, J.L.*, Rodriguez, E., Sweedler, J.V., Silver, R. (2012) Serotonin of mast cell origin contributes to hippocampal function. Eur J Neurosci 36(3):2347-59.

Nautiyal, K.M., Liu, C.*, Dong, X., Silver, R. (2011) Blood-borne donor mast cell precursors migrate to mast cell-rich brain regions in the adult mouse. J Neuroimmunol 240-241:142-6

Nautiyal, K.M., McKellar, H., Silverman, A.J., Silver, R. (2009) Mast cell involvement in the hypothermic response to sepsis. Am J Physiol 296(3):R595-602

Nautiyal, K.M., Ribeiro, A., Pfaff, D.W., Silver, R. (2008) Brain mast cells link the immune system to anxiety-like behavior. Proc Natl Acad Sci U S A; 105(46): 18053-57.

Nautiyal, K.M., Dailey, M., Brito, N., Brito, M.N., Harris, R.B, Bartness, T.J., Grill, H.J. (2008) Energetic responses to cold temperatures in rats lacking forebrain-caudal brainstem connections. Am J Physiol 295(3):R789-98.

Chapters and Editorials

K.M. Nautiyal. (2019) Paid Family Leave for Postdocs. Scientific American.

K.M. Nautiyal. (2012) Immune cells in the brain. In: Neuroscience in the 21st Century, Ed. Donald Pfaff, Springer Link.

Selected Invited Lectures

McLean, Department of Psychiatry, Harvard Medical School	June 2026
Gordon Research Conference on the Basal Ganglia	Feb 2026
University of Wisconsin – Madison, School of Pharmacy	Nov 2025
Gordon Research Conference on Psychedelics	July 2025
International Society for Serotonin Research	July 2025
UMass Amherst, Neuroscience Colloquium	Oct 2024
National Institutes of Health, Center on Compulsive Behaviors	May 2024
University of Calgary, Hotchkiss Brain Institute	Feb 2024
Columbia University, Division of Integrative Neuroscience, Dept of Psychiatry	Aug 2023

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[*]undergraduate student advisee, [**]graduate student advisee, [+]Postbaccalaureate advisee, [#]Postdoctoral advisee

University of Washington, NAPE Center	July 2023
Annual Interdisciplinary Conference, Jackson Hole	Feb 2023
Dartmouth Hitchcock, Grand Rounds in Psychiatry	Jan 2023
University of Vermont, Department of Psychological Science	April 2022
Sai University, Chennai, India	Dec 2021
Center for Addiction Research Seminar, University of Texas, Medical Branch	Oct 2021
Amherst College, Department of Biology Seminar	Mar 2021
Fordham University, Department of Biology Colloquium	Feb 2021
Pavlovian Society	Sept 2020
International Society for Serotonin Research [rescheduled due to COVID-19]	July 2020
Eastern Psychological Association Annual Meeting [cancelled due to COVID-19]	Mar 2020
Neuroscience Day, Dartmouth College	April 2019
Center for Cognitive Neuroscience Annual Retreat, Dartmouth College	Oct 2018
International Society of Serotonin Research	July 2018
Barrow Neurological Institute, Neuroscience Seminar	April 2018
American Psychiatric Association Annual Meeting	May 2017
University of Pennsylvania, Department of Psychiatry	Mar 2017
University of Connecticut, Department of Psychology	Feb 2017
Fordham University, Department of Biology	Feb 2017
Dartmouth College, Department of Psychological and Brain Sciences	Jan 2017
Mt. Sinai School of Medicine, Department of Neuroscience	Dec 2016
Vassar College, Department of Psychology	Dec 2016
International Society for Serotonin Research	July 2014
Psychoneuroimmunology Research Society	June 2011
Society for the Study of Ingestive Behavior Annual Meeting	July 2005

Recent Conference Talks

Pavlovian Society Annual Conference
Serotonin sets the stage for impulsivity
Montreal, QC, Canada; September 2026

Winter Brain Conference on Brain Research
Serotonin modulates dorsomedial striatal during goal-directed behavior
Big Sky, MO; January 2026

Winter Brain Conference on Brain Research
Serotonin modulates striatal reward circuits
Lake Tahoe, CA; January 2025

Winter Brain Conference on Brain Research
Regional differences in serotonin release across the reward circuitry encode different aspects of reward processing
Lake Tahoe, CA; January 2025

American College of Neuropsychopharmacology
Serotonin 1B receptors are involved in the Behavioral Effects and Mechanisms of Actions of Psilocybin
Tampa, FL; Dec 2023

International Society for Serotonin Research
Using serotonin biosensors to understand the role of serotonin in rewarded behavior
Cancun, MX; April 2023

Annual Interdisciplinary Conference
What is serotonin actually doing in the brain?
Jackson, WY; February 2023

Winter Brain Conference on Brain Research
Serotonin modulates dorsal striatal medium spiny neurons during reward anticipation

Snowbird, UT; January 2023

Eastern Psychological Association [cancelled due to COVID-19]
Behavioral and neural substrates of behavioral inhibition
Boston, MA; March 2020

Winter Conference on Brain Research
A role for reward sensitivity in the serotonergic modulation of impulsivity
Big Sky, MO; January 2020

American College of Neuropsychopharmacology
I Can't Wait: Challenges and Successes in Translational Research on Impulsivity.
Hollywood, FL; December 2018

International Society for Serotonin Research
A lack of serotonin 1B autoreceptors results in decreased anxiety and depression-related Behaviours. Cork, Ireland; July 2018

Chaired Symposia:

Gordon Research Conference – Frontal Cortex (Discussion Leader), Aug 2026
Therapeutic Neuromodulation of the Frontal Cortex

Gordon Research Conference – Psychedelics (Discussion Leader), July 2025
Psychedelic-Evoked Neural Plasticity

Winter Conference on Brain Research (Chair), January 2025
Tutorials for Using Reinforcement Learning and Sequential Sampling Models

Winter Conference on Brain Research (Chair), January 2024
Using preclinical models to study the neurobiological mechanisms of psychedelics in anxiety and depressive disorders

American College of Neuropsychopharmacology (Chair), Dec 2023
Exploring the mechanisms of the Persisting Effects of Psilocybin

International Society for Serotonin Research (Chair), April 2023
Towards a better understanding of how serotonin modulates impulsivity

Winter Conference on Brain Research (Chair), January 2023
Serotonin in learning and reward

Winter Conference on Brain Research (Chair), January 2020
It's not all dopamine: The role of serotonin in the modulation of impulsive behavior

American College of Neuropsychopharmacology (Co-chair, speaker), December 2018
I Can't Wait: Challenges and Successes in Translational Research on Impulsivity.

Winter Conference on Brain Research (Co-chair), January 2017
Novel Approaches to identifying monoamine circuits in aggression

Society for Neuroscience Minisymposium (Chair, speaker), October 2009
Behavioral Neuroimmunology: Linking the immune system to emotionality and cognition

Recent Lab Poster Presentations (within last 5 years with underlined author as presenter)

Turner, M., Fengler, C., **Nautiyal, K.M.** Serotonin Signaling and Reward Behavior Following Adolescent Alcohol Exposure. Gordon Research Conference on Alcohol, Feb 2026

Ng, K.H., Sharma, A., **Nautiyal, K.M** Serotonin Modulates the Dorsomedial Striatum in a Behavioral State-Specific Manner. Annual Meeting of the American College of Neuropsychopharmacology. Nassau, Bahamas, Jan 2026

Spring, M., Lyndaker, A., **Nautiyal, K.M**. Differential serotonin release across striatal subregions during reward. Society for Neuroscience. San Diego, CA Nov 2025

Fengler, C. **Nautiyal, K.M**. Examining the acute and persisting effects of adolescent SSRI administration on motivated behaviors. Society for Neuroscience. San Diego, CA Nov 2025

Fleury, S. & **Nautiyal, K.M.** *The serotonin 1B receptor is required for some of the behavioral and neural effects of psilocybin.* International Society for Serotonin Research, Vienna, Austria. July 2025.
*also selected for a conference talk

Spring, M. & **Nautiyal, K.M.** *Striatal serotonin release signals reward value* Winter Conference on Brain Research, Lake Tahoe, CA. Jan 2025

Fleury, S. & **Nautiyal, K.M.** *The non-hallucinatory serotonin 1B receptor is necessary for the persisting anti-depressant effects of psilocybin.* Winter Conference on Brain Research, Lake Tahoe, CA. Jan 2025

Fleury, S. & **Nautiyal, K.M.** *The non-hallucinatory serotonin 1B receptor is necessary for the persisting anti-depressant effects of psilocybin.* Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ. Dec 2024

Spring, M. & **Nautiyal, K.M.** *Striatal serotonin release signals reward value*. Society for Neuroscience, Chicago, IL. Oct 2024

Fleury, S. & **Nautiyal, K.M.** *The non-hallucinogenic serotonin 1B receptor is involved in the persisting behavioral effects and neural mechanisms of psilocybin in mice.* Society for Neuroscience, Chicago, IL. Oct 2024

Fleury, S. & **Nautiyal, K.M.** *The non-hallucinatory serotonin 1B receptor is necessary for the persisting anti-depressant effects of psilocybin.* Winter Conference on Brain Research, Breckenridge, CO Jan 2024
*also selected for a conference talk

Spring, M. & **Nautiyal, K.M.** *Serotonin is released in the dorsal striatum in anticipation of reward.* Annual Meeting of the American College of Neuropsychopharmacology, Tampa, FL Dec 2023

Albert-Lyons, R., Ng, K., **Nautiyal, K.M**. Charting the trajectory of impulsivity and motivated behavior across adolescent development in mice. Society for Neuroscience, Washington D.C. Nov 2023

Sharma, A., Ng, K., Desrochers, S.D., Manning, J., **Nautiyal, K.M**. Serotonin modulates the neural representation of action selection in the dorsomedial striatum during goal directed behavior. Society for Neuroscience, Washington D.C. Nov 2023

Dutton, A., Patel, C., Taylor, S., Garland, C., Alers-Valazquez, R., Mehrbach, J, Leib, D., **Nautiyal, KM.** Neonatal herpes simplex virus infection leads to Alzheimer's-like cognitive decline and autophagy-mediated neurodegeneration in adult mice. Society for Neuroscience, Washington D.C. Nov 2023

Spring, M. & **Nautiyal, K.M.** *Serotonin encodes anticipatory reward value in the dorsal striatum*. Annual Conference of the Pavlovian Society. Austin, TX. Sept 2023

Spring, M. & **Nautiyal, K.M.** *G-protein coupled receptor activation based (GRAB) photometry reveals serotonin release during reward consumption in the dorsal striatum*. Winter Conference for Brain Research. Snowbird, UT. Jan 2023

Ng, K.H., Sharma, A., Spring, M., **Nautiyal, K.M.** *Serotonin Modulates Dorsal Striatal Medium Spiny Neurons During Reward Anticipation*. Annual Meeting of the American College of Neuropsychopharmacology Phoenix, AZ Dec 2022

Fleury, S. & **Nautiyal, K.M.** *Investigating altered consciousness and the role of serotonin receptors in the therapeutic effects and mechanisms of actions of psilocybin.* Society for Neuroscience. San Diego, CA Nov 2022

Desrochers, S.S., Compaore, D., **Nautiyal, K.M.** *Decreasing reward value ameliorates pathological impulsivity in mice lacking the serotonin 1B receptor.* Society for Neuroscience. San Diego, CA Nov 2022

Spring, M. & **Nautiyal, K.M.** *G-protein coupled receptor activation based (GRAB) photometry reveals serotonin release during reward consumption in the dorsal striatum*. Society for Neuroscience. San Diego, CA Nov 2022

Desrochers, S.S. & **Nautiyal, K.M.** *Serotonin 1B receptor mediated impulsivity is associated with increased subjective reward valuation.* Society for Neuroscience. (virtual) Dec 2021

Desrochers, S.S. & **Nautiyal, K.M.**. *Increased conditioned responding and taste reactivity is associated with impulsivity in mice lacking the serotonin 1B receptor*. Annual Meeting of the Pavlovian Society (Virtual) Sept 2021

Society Membership, Service, and Outreach

Society Membership

American College of Neuropsychopharmacology (Associate Member)	2020-current
Pavlovian Society	2018-current
International Society for Research on Impulsivity	2017-2022
International Society for Serotonin Research	2014-current
Psychoneuroimmunology Research Society	2006-2011
Society for Neuroscience	2005-current

Society and Conference Leadership

Education and Training Committee, American College of Neuropsychopharmacology	2026-current
North American Councilor, International Society for Serotonin Research	2023-current
Board of Directors, Winter Conference for Brain Research	2023-current
Executive Committee, Pavlovian Society	2023-current
International Society for Serotonin Research Conference Mentor	2023, 2025
Winter Conference for Brain Research Mentor	2020, 2023-2025
Women's Task Force, American College of Neuropsychopharmacology	2022-2025
Executive Committee of the International Society for Research on Impulsivity	2021-2022

Reviewing Service

Ad hoc manuscript reviewer for: 2012-current
Molecular Psychiatry, Neuropsychopharmacology; European Journal of Neuroscience; eNeuro; Psychopharmacology; Hormones and Behavior; Genes, Brain, and Behavior, Biological Psychiatry Cell; eLife

Reviewing editor for Frontiers in Behavioral Neuroscience 2020-2022
Member of the Editorial Board of Motivation and Reward

Grant Review Panels:

NIH Neural Basis of Motived Behavior (NBMB)	2026
NIH Biobehavioral Regulation, Learning, and Ethology (BRLE) Study Section	2026
NIH Special Emphasis Panel ZRG1 ICN-W (02)	2025
NIH Special Emphasis Panel ZRG1 ICN L 94	2025
NIH Review Panel, Neurobiology of Motivated Behavior (NMB) Study Section	2023
NIH Review Panel 2022/04 ZRG IFCN-U (02)	2022
NIH Special Emphasis Panel 2022/01 ZMH1 ERB-Q (02) R	2022
Swiss National Science Foundation	2020
Collaborative Incentive Research Grant from CUNY	2019
National Center for Responsible Gaming	2016-2022

Dartmouth Service

Director of Graduate Studies (Psychological and Brain Sciences)	2025-current
Search Committee for Dean of Guarini	2026
Committee on Priorities (Arts & Sciences)	2025
Integrative Neuroscience at Dartmouth, Council Member (Guarini)	2023-2025
Graduate Committee (Psychological and Brain Sciences)	2023-2025
Search Committee for Two TT Positions in BN (Psychological and Brain Sciences)	2023-2024

Search Committee for TT Position in BN (Psychological and Brain Sciences)	2022-2023
Inclusivity, Diversity, and Culture Committee (Psychological and Brain Sciences)	2021-2022
Developed PBS Liftoff Fellowship to support incoming URM PhD students	
Neuroscience Day Planning Committee (College, Guarini, Giesel & DHMC)	2020-2025
EE Just Scholar Mentor	2020-2023
Committee on the Faculty (Arts and Sciences)	2019-2020
Neuroscience Committee (Psychological and Brain Sciences)	2018-2019, 2019-2020, 2022-2023
Women in Science Project Mentor	2018-current

Other Outreach

SfN Journals: In Conversation Webinar	2026
Power Hour Chair at Psychedelics GRC	2025
Dartmouth Deep Questions Seminar	2024
Brain Bee Keynote Lecture and Judge	2019, 2025
STEM @ The Nugget	2019
Faculty of 1000, Associate Faculty Member	2017-2022
Invited press conference participant, Society for Neuroscience	2009, 2013, 2022