## **Curriculum Vitae**

## Kent Charles Berridge

# **Current Position**

James Olds Distinguished University Professor of Psychology and Neuroscience The University of Michigan Department of Psychology, Biopsychology Program, & University-wide Neuroscience Program

## Address

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# **Education**

Ph.D.	1983	University of Pennsylvania
M.A.	1980	University of Pennsylvania
B.S. (with Honors)	1979	University of California at Davis
		(Junior year at University of Sussex, England, 1977-78)

# **Academic Appointments**

2016- present	James Olds Distinguished University Professor of Psychology and Neuroscience University of Michigan, Ann Arbor
2009 – 2016	James Olds Collegiate Professor of Psychology and Neuroscience
	College of Literature, Science and Arts, University of Michigan, Ann Arbor
1995 - present	Professor
	Department of Psychology, University of Michigan, Ann Arbor
1990 -1995	Associate Professor
<i></i>	Department of Psychology, University of Michigan, Ann Arbor
1985 - 1990	Assistant Professor
, , , , , , , , , , , , , , , , , , , ,	Department of Psychology, University of Michigan, Ann Arbor
1983 - 1985	Killam, NATO Science, & NIMH Postdoctoral Fellow,
/ / / /	Department of Psychology, Dalhousie University, Nova Scotia, Canada

## **Visiting Appointments**

2020	Visiting Fellow, Peterhouse College, University of Cambridge, England
2019-2020	Visiting Professor, School of Psychology, University of Sussex, England
2013	Visiting scholar, University College London, England
	Gatsby Computational Neuroscience Unit
2005 -2006	Visiting Professor, University of Cambridge, England
	Downing College and Department of Experimental Psychology,
2001-2003	Visiting Professor (not in residence), University of Liverpool, England
	Department of Psychology
1998-1999	Chercheur associé (visiting scientist), CNRS Centre Européen des Sciences du Goût,
	University of Burgundy, Dijon, France
1991-1992	Visitor (visiting scholar), School of Psychology, University of Birmingham, England

# **Selected Academic Honors**

Elected member of the National Academy of Sciences, 2024 APS William James Fellow Lifetime Achievement Award, Association for Psychological Science, 2023 Honorary Doctor of Science degree (D.Sc. Hon.), University of Sussex, U.K., 2020 \*Grawemeyer Award for Outstanding Ideas in Psychology, 2019 \*APA Distinguished Scientific Contributions Award, American Psychological Association, 2016 AAAS Fellow, American Association for the Advancement of Science, 2011 APA Master Lecturer, American Psychological Association, 2011 Guggenheim Fellow, John Simon Guggenheim Memorial Foundation 2005 APA Fellow, American Psychological Association, appointed 1998 & 2002 Division 3: Experimental Psychology (appointed Fellow 2002) Division 6: Behavioral Neuroscience & Comparative Psychology (appointed Fellow 1998) APS Fellow & Charter Member, Association for Psychological Science (appointed Fellow 2000) Fulbright Senior Scholar 1998-1999

Faculty Research Excellence Award, College of Literature, Science, & Arts, University of Michigan, 1997 James McKeen Cattell Foundation Sabbatical Fellow Award, 1991-1992

APA Distinguished Scientific Early Career Award, American Psychological Association, 1991

\* = Co-winner – these awards shared with Terry E. Robinson

## Teaching Awards, Student-elected Honors, Scholarly Service Awards & Internet Honors

Listed among "The 50 most influential living psychologists" by TheBestSchools.org, 2018 F1000 Prime, Faculty Member of Year award in Neuroscience, 2011, 2012, 2016, & 2018 F1000 Prime (Post-publication Peer Review) Outstanding Faculty Award, 2013 & 2014, & 2017 Distinguished Lecturer Award, University of North Carolina at Chapel Hill, elected by graduate students in Behavioral Neuroscience program in UNC Department of Psychology, 2012 Honorary member, Golden Key National Honor Society, elected by University of Michigan students, 1995 Excellence in Education Teaching Award, LS&A College, University of Michigan 1991 & 1993 Master Lecturer Award for Teaching, Michigan Psychological Association, 1991

### **Current Research Interests**

Research in my laboratory addresses questions such as:

- How is pleasure generated in the brain?
- How are desire and appetite generated by the brain?
- What causes addiction?
- How do brain mechanisms of emotion work?
- What are the neural bases of reward learning, wanting and liking?
- How does the neurobiology of fear relate to the neurobiology of desire?
- How does emotion relate to consciousness? Can there be an unconscious emotion?

## **Professional Membership**

Society for Neuroscience; Association for Psychological Science; American Psychological Association; Society for the Study of Ingestive Behavior; International Society for Behavioral Neuroscience; International Society for Neuroethology

**Current editorial boards**: Brain and Neurosciences Advances. **Former editorial boards**: Journal of Neuroscience; Behavioral Neuroscience; Positive Psychology, Emotion Review; Cognitive, Affective & Behavioral Neuroscience

**Post-Publication Peer Review:** *Faculty of 1000* in Life Sciences and Biomedicine (published online >450 evaluations in *F1000 Prime Faculty Opinions* since 2005 as Faculty in 1000 Member in Neuroscience Section) <u>https://facultyopinions.com/prime/thefaculty/member/2780856232420421</u>

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# **Publications**

Free reprint pdfs available from my lab Publications site at: <u>https://sites.lsa.umich.edu/berridge-lab/publications/</u>

PubMed list of publications: http://www.ncbi.nlm.nih.gov/sites/myncbi/kent.berridge.1/bibliography/41429105/public/?sort=date&direction=descending

## Citation statistics:

 $\begin{array}{l} Google \ Scholar: \ total > 88,000 \ citations, \ h \geq 121 \ (as \ of \ June \ 2024) \\ \underline{http://scholar.google.com/citations?user=WIRQRN8AAAAJ&hl=en} \end{array}$ 

Web of Science: total >42,000 citations,  $h \ge 91$  (as of June 2024) https://www.webofscience.com/wos/woscc/citation-report/b77dbe90-7080-47cc-81b6-a5afd04476d3-3bf3605e

## Edited Book

Kringelbach M.L. & Berridge K.C. (Eds.): *Pleasures of the Brain.* Oxford: Oxford University Press (pp. 343), 2010.

## Journal Articles and Book Chapters (newest to oldest)

Robinson TE & Berridge KC. The incentive-sensitization theory of addiction 30 years on. *Annual Review* of *Psychology* 76: 29-58 (2025). PMC in progress https://www.annualreviews.org/content/journals/10.1146/annurev-psych-011624-024031

Berridge K.C. Drug cues trigger corticolimbic hyperreactivity in heroin users (commentary on Huang et al.). *American Journal of Psychiatry*, 181: 95-97 (2024). PMC10876381

Berridge, K.C. Separating desire from prediction of outcome value. *Trends in Cognitive Sciences*, 27 (10), 932-946 (2023). PMC10527990 <u>https://doi.org/10.1016/j.tics.2023.07.007</u>

Baumgartner, H. M., Granillo, M. Schulkin, J., Berridge, K.C. Corticotropin releasing factor (CRF) systems: Promoting cocaine pursuit without distress via incentive motivation. *PLoS ONE 17*(5): e0267345 (2022). PMC9064096 <u>https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0267345</u>

Baldo, B.A & Berridge, K.C. Mapping causal generators of appetitive motivation-hedonic functions in frontal cortex. *Neuropsychopharmacology* 47, 415–416 (2022). PMC8617043 <u>https://www.nature.com/articles/s41386-021-01154-8</u>

Berridge, K.C. Is addiction a brain disease? The incentive-sensitization view. Chapter 6 in *Evaluating the Brain Disease Model of Addiction* (Heather, N., Field, M., Moss, A.C., Satel, S.), pp. 74-86, Routledge, N.Y. (2022). https://www.taylorfrancis.com/chapters/edit/10.4324/9781003032762-8/addiction-brain-disease-kent-berridge

Stark, E., Berridge, K.C. & Kringelbach, M.L. The neurobiology of liking. In *The Routledge International Handbook of Neuroaesthetics*, (M. Skov & M. Nadal Eds.), pp. 63-70, Routledge, London (2022). DOI: 10.4324/9781003008675-4

Berridge, K. C., & Dayan, P. Liking – Quick guide. *Current Biology*, *3*1(24), R1555-R1557, (2021). <u>https://doi.org/10.1016/j.cub.2021.09.069</u> Baumgartner, H. M., Schulkin, J., & Berridge, K. C. Activating corticotropin releasing factor (CRF) systems in nucleus accumbens, amygdala, and bed nucleus of stria terminalis: Incentive motivation or aversive motivation? *Biological Psychiatry*, 89: 1162–1175 (2021). PMC8178165 https://doi.org/https://doi.org/10.1016/j.biopsych.2021.01.007

Baumgartner, H.M., Naffziger, E.E., Nguyen D., Berridge, K.C. Incentive Salience in Irrational Miswanting and Extreme Motivation. Chapter in *The Psychology of Extremism* (Kruglanski, A.W., Kopetz, C. Szumowska, E., Eds.), 15-33 (2021).

Warlow, S. M., & Berridge, K. C. Incentive motivation: 'wanting' roles of central amygdala circuitry. *Behavioural Brain Research*, 411, 113376 (2021). https://doi.org/https://doi.org/10.1016/j.bbr.2021.113376 PMC8238905

Nguyen, D., Naffziger, E.M., Berridge, K.C. Positive affect: nature and brain bases of liking and wanting. *Current Opinion in Behavioral Sciences*, *39*:72-78 (2021). <u>https://doi.org/10.1016/j.cobeha.2021.02.013</u> PMCID: PMC7978410

Berridge, K.C. Commentary on Vandaele and Ahmed: Rethinking habits in addiction. *Neuropsychopharmacology*, 46, 687–688 (2021) DOI: 10.1038/s41386-020-00932-0 PMC8027213 <u>https://www.nature.com/articles/s41386-020-00932-0</u>

Dukes, D., Abrams, K., Adolphs, R., Ahmed, M. E., Beatty, A., Berridge, K. C., et al. The rise of affectivism. *Nature Human Behaviour*, 5(7), 816-820 (2021). https://doi.org/10.1038/s41562-021-01130-8 PMC8319089 https://www.nature.com/articles/s41562-021-01130-8

Warlow, S.M., Naffziger, E.E. & Berridge, K.C. The central amygdala recruits mesocorticolimbic circuitry for pursuit of sugar, cocaine, or pain. *Nature Communications*, *11*(1):2716 (2020). doi: 10.1038/s41467-020-16407-1. PMCID: PMC7264246 <u>https://www.nature.com/articles/s41467-020-16407-1</u>

Morales, I. & Berridge K.C. 'Liking' and 'wanting' in eating and food reward: Brain mechanisms and clinical implications. *Physiology & Behavior*, 113-152 (2020). PMCID: PMC7655589 <u>https://www.sciencedirect.com/science/article/pii/S0031938420304662?via%3Dihub</u>

Baumgartner, H.M., Cole, S.L., Olney, J.J., Berridge, K.C. Desire or dread from nucleus accumbens inhibitions: reversed by same-site optogenetic excitations. *Journal of Neuroscience*, 40(13): 2737-2752 (2020) PMCID: PMC7096140. <u>https://www.jneurosci.org/content/40/13/2737</u>

Urstadt, K. R. & Berridge, K.C. Optogenetic mapping of feeding and self-stimulation within the lateral hypothalamus of the rat. *PLoS One, 15* (1), e0224301 (2020). PMC6984703.

Khan, H.A., Urstadt, K.R., Mostovoi, N.A., & Berridge, K.C. Mapping excessive "disgust" in the brain: Ventral pallidum inactivation recruits distributed circuitry to make sweetness "disgusting" *Cognitive, Affective, & Behavioral Neuroscience*, 20 (1), 141-159 (2020). PMC7018599

Stark, E., Berridge, K.C. & Kringelbach, M.L. Are we designed to be happy? The neuroscience of making aense of pleasure. In *The Cambridge Handbook of Evolutionary Perspectives on Human Behavior* (L. Workman, W. Reader & J.H. Barkow, Eds.). Cambridge University Press, pp. 91-96 (2020).

Berridge, K.C. Affective valence in the brain: modules or modes? *Nature Reviews Neuroscience*, *20*, 225-234 (2019). PMC6137142

Bechara, A., Berridge, K. C., Bickel, W. K., Morón, J. A., Williams, S. B., Stein, J. S. "A Neurobehavioral Approach to Addiction: Implications for the Opioid Epidemic and the Psychology of Addiction." *Psychological Science in the Public Interest*, 20(2): 96-127 (2019). PMC7001788.

Berridge, K.C. A liking and wanting perspective on emotion and the brain. In *Oxford Handbook of Positive Emotion and Psychopathology* (J. Gruber, Ed.). Oxford University Press, pp 184-196 (2019).

- Cole, S.L., Robinson, M.J.F. & Berridge, K.C. Optogenetic self-stimulation in the nucleus accumbens: D1 reward versus D2 ambivalence. *PLoS ONE*, *13* (11), e0207694 (2018). PMC6264872
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- Castro, D. C. & Berridge, K.C. Opioid and orexin hedonic hotspots in rat orbitofrontal cortex and insula. *Proceedings of the National Academy of Sciences*. 114(43), E9125–E9134, (2017). PMC5664503
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- Berridge, K.C. Is addiction a brain disease? *Neuroethics*. 10(1), pp 29-33 (2017). PMC5503469
- Holton, R. & Berridge, K. Compulsion and choice in addiction. In *Addiction and Choice: Rethinking the Relationship,* (N. Heather & G. Segal, Eds.) Oxford University Press, pp 153-170(2017).
- Robinson, T.E. & Berridge, K. Beyond Wise et al.: Neuroleptic-induced "anhedonia" in rats: Pimozide blocks reward quality of food. In *Brain and Behavior: Revisiting the Classic Studies*. (B. Kolb & I. Whishaw, Eds.) Sage Publications, pp 190-200, (2017).
- Kringelbach, M.L. & Berridge, K.C. The affective core of emotion: Linking pleasure, subjective well-being, and optimal metastability in the brain. *Emotion Review*, 9(3), 191-199 (2017). PMC560446
- Berridge, K.C. & Robinson, T.E. Liking, wanting, and the incentive-sensitization theory of addiction. *American Psychologist* 7(8), 670-679, (2016). PMC5171207
- Berridge, K.C. APA Award for Distinguished Scientific Contributions: Kent C. Berridge. *American Psychologist*, 71 (8), 667-669, (2016).
- DiFeliceantonio, A.G. & Berridge, K.C. 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 (2016). PMC4846486
- Castro, D.C., Terry, R.A., & Berridge, K.C. Orexin in rostral hotspot of nucleus accumbens enhances sucrose 'liking' and intake but scopolamine in caudal shell shifts 'liking' toward 'disgust' and 'fear'. *Neuropsychopharmacology*, 41, 2101-2111 (2016). PMC4908641
- Itoga, C.M., Berridge, K.C. & Aldridge, J.W. Ventral pallidal coding of a learned taste aversion. *Behavioral Brain Research*, 300, 175-183 (2016). PMC4724492
- Song, C., Berridge, K.C., & Kalueff, A.V. "Stressing" rodent self-grooming for neuroscience research. (reply to comment) *Nature Reviews Neuroscience*, 17 591, (2016). PMC5504409
- Kalueff, A.V., Stewart, A.M., Song, C., Berridge, K.C., Graybiel, A.M., & Fentress, J.C. Neurobiology of rodent selfgrooming and its value for translational neuroscience. *Nature Reviews Neuroscience*, 17 45-59 (2016). PMC4840777
- Kringelbach, M. L., & Berridge, K. C. (2016). Drive and motivation in the brain. In H. Miller (Ed.), *Sage Encyclopedia of Theory in Psychology* (pp. 240-244). New York, NY: Sage.

Abridged & reprinted as:

Kringelbach, M. L. and K. C. Berridge (2016). Neuroscience of Reward, Motivation, and Drive. *Recent Developments in Neuroscience Research on Human Motivation*: 23-35.

Berridge, K.C. & Kringelbach, M.L. Pleasure systems in the brain. Neuron, 86(3), 646-664 (2015). PMC4425246

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- Castro DC, Cole SL and Berridge KC (2015) Lateral hypothalamus, nucleus accumbens, and ventral pallidum roles in eating and hunger: interactions between homeostatic and reward circuitry. *Frontiers in Systems Neuroscience* 9:90. doi: 10.3389/fnsys.2015.00090 PMC4466441
- Seeley, R.J. & Berridge, K.C. The hunger games. *Cell*, 160(5):805-806 (2015).
- Robinson, M.J., Burghardt, P.R., Patterson, C.M., Nobile, C.W., Akil, H., Watson, S.J., Berridge, K.C. & Ferrario, C.R. (2015) Individual Differences in Cue-Induced Motivation and Striatal Systems in Rats Susceptible to Diet-Induced Obesity. *Neuropsychopharmacology*, 40, 2113-2123 (2015).
  PMC4613617
- Robinson, M.J.F., Anselme, P., Suchomel, K., & Berridge, K.C. Amphetamine-induced sensitization and reward uncertainty similarly enhance incentive salience for conditioned cues. *Behavioral Neuroscience*, 129, 502-511 (2015). PMC4540329
- Robinson, M.J.F. & Berridge, K.C.. Wanting vs needing. In *International Encyclopedia of the Social & Behavioral Sciences* (J. D. Wright, Ed.), 2nd edition, Vol 25. Oxford: Elsevier. pp. 351–356 (2015).
- Kringelbach, M.L. & Berridge, K.C. Motivation and pleasure in the brain. In *The Psychology of Desire* (W. Hofmann & L.F. Jordgren, Eds.), NY: Guilford Press, pp. 129-145, (2015).
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- Ho, C.-Y. & Berridge, K.C. Excessive disgust caused by brain lesions or temporary inactivations: mapping hotspots of the nucleus accumbens and ventral pallidum. *European Journal of Neuroscience*, *40*, 3556–3572, (2014). PMC4236281
- Castro, D. C. & Berridge, K.C. Opioid hedonic hotspot in nucleus accumbens shell: mu, delta and kappa maps for enhancement of sweetness 'liking' and 'wanting'. *Journal of Neuroscience*, 31: 4239-4250 (2014). PMC3960467
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- Dayan, P. & Berridge, K.C. Model-based and model-free Pavlovian reward learning: revaluation, revision and revelation. *Cognitive, Affective, & Behavioral Neuroscience*. 14, 473-492 (2014). PMC4074442
- Berridge, K.C & O'Doherty, J.P. From experienced utility to decision utility. In *Neuroeconomics: Decisions and the brain* (2nd edition). P. Glimcher & E. Fehr (Eds.), Academic Press, pp. 335-354 (2014).
- Holton, R. & Berridge, K. Addiction between compulsion and choice. In *Addiction and self control: Perspectives from philosophy, psychology and neuroscience*. N. Levy (Ed.), Oxford University Press, pp.239-268 (2014).
- Castro, D.C. & Berridge, K.C. Advances in the neurological bases for food 'liking' versus 'wanting'. *Physiology & Behavior*, 136, 22-30, (2014). PMC4246030
- Robinson, M.J.F., Robinson, T.E., Berridge, K.C. Incentive salience in addiction and over-consumption. *The Interdisciplinary Science of Consumption*. S. D. Preston, M.L. Kringelbach, B. Knutson & P.C. Vhybrow (Eds.), MIT Press, pp. 185-198 (2014).
- Hill, J.O., Berridge, K., Avena, N.M., Ziauddeen, H., Alonso-Alonso, M., Allison, D.B., Khan, N.A., & Kelley, M. Neurocognition: The Food–Brain Connection. *Advances in Nutrition*, *5*: 544–546, 2014. PMC4188227
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Pecina, S. & Berridge, K.C Dopamine or opioid stimulation of nucleus accumbens similarly amplify cuetriggered 'wanting' for reward: entire core and medial shell mapped as substrates for PIT enhancement. *European Journal of Neuroscience*, 37, 1529-1540 (2013). PMC4028374.

- Richard, J.M., Plawecki, A.M. & Berridge, K.C. Nucleus accumbens GABAergic inhibition generates intense eating and fear that resists environmental retuning and needs no local dopamine. *European Journal of Neuroscience*, 37, 1789-1802 (2013). PMC3672387
- Berridge, K.C & Kringelbach, M.L. Neuroscience of affect: brain mechanisms of pleasure and displeasure. Current *Opinion in Neurobiology*, *23*: 294-303 (2013). PMC3644539
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- Kringelbach, M.L. & Berridge, K.C. The joyful mind. Scientific American, August, 40-45 (2012).
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- Smith, K.S., Berridge, K.C. & Aldridge, J.W. Disentangling pleasure from incentive salience and learning signals in brain reward circuitry. *Proceedings of the National Academy of Sciences PNAS Plus*, 108, (27) E255-E264, (2011).
  - Short Version (2-page summary): Smith, K.S., Berridge, K.C., Aldridge, J.W. PNAS, 108 (27), 10935-10936 (2011).

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## Selected Invited Addresses & Colloquia (2016 – present; Most recent listed first)

- Wanting, Liking & Addiction in the Brain. Invited in-person colloquium, Department of Psychology, University of California at San Diego, 2024.
- Neuroscience theories of addiction. Invited virtual speaker, Neurocon24 webinar, Bucharest, Romania, 2024.
- Brain generators of emotion. Invited speaker, Dual Perspectives Debate on Emotion, Society for Neuroscience conference, Chicago, 2024.
- Neuroscience of addiction. Invited virtual speaker, Addiction: Choice and Disease Webinar, British Psychological Society, U.K., 2024.
- Prediction and Desire. Invited keynote speaker, On Purpose Philosophy conference, Department of Philosophy, Duke University, Durham, North Carolina, 2024.
- Desire, Pleasure, and Addiction in the Brain. Invited in-person colloquium, Department of Psychological and Brain Sciences, Dartmouth College, N.H., 2023.
- Neuroscience of Addiction & Desire. Invited virtual seminar, Department of Psychology, Calvin University, Grand Rapids, MI, 2023.
- Pleasure, Desire, and Addiction in the Brain. Invited in-person William James Fellow award address, Association for Psychological Science conference, Washington, D.C. 2023.
- Brain Generators of Delight, Desire & Dread. Invited in-person colloquium, Center for Behavioral Neuroscience, American University, Washington D.C., 2023
- Liking vs Wanting in Brain Reward Circuitry: From Laboratory to Clinical Applications. Invited in-person 30<sup>th</sup> Annual Barrett Neuroscience Lecture in Psychiatry, Department of Psychiatry, University of Michigan, 2023.
- Desire, Pleasure & Prediction. Invited in-person lecture, 5th annual Summer Seminars in Neuroscience and Philosophy, Duke University, Durham, North Carolina.
- Brain Bases of Delight, Desire and Dread. Invited in-person lecture 6th World Congress Association on Dual Disorders, Mexican Psychiatry Association, Mexico City, Mexico 2022.
- Brain Bases of Delight, Desire and Dread. Invited in-person plenary address, Society of Biological Psychiatry annual conference, New Orleans, Louisiana, 2022.
- Limbic generators of delight, desire and dread. Invited virtual colloquium Max Plankt Institute, University of Tübingen, Germany, 2021.
- Brain Generators of Delight, Desire and Dread. Invited in-person colloquium, Neuroscience Program, Floriday State University, Florda 2021.
- Delight, Desire and Dread. Invited in-person lecture, Sage Center for study of Mind and Brain, University of California at Santa Barbara, 2021.
- Drug addiction and the neurobiology of desire. Invited virtual seminar, Neuroscience Program, University of Tennesee, Knoxville,2021.
- Brain Systems of Delight, Desire and Dread. Invited virtual keynote colloquium, Department of Neurobiology, Physiology, and Behavior, University of California at Davis, 2021.
- Update on Liking and Wanting in Food Rewards. Invited virtual keynote address, 45<sup>th</sup> annual conference of British Feeding and Drinking Group, Leeds, UK, 2021.
- Delight, Desire and Dread. Invited virtual colloquium, Department of Psychology, University of Pennsylvania, Philadelphia, 2021.
- Brain Systems of Pleasure and Addiction. Invited keynote virtual speaker, 28<sup>th</sup> Puerto Rico Neuroscience Conference, 2020.
- Brain Generators of Delight, Desire and Dread. Invited virtual speaker, Psychiatry Grand Rounds lecture, New York Medical College – Westchester, 2020.
- Pleasure and Addiction. Invited virtual speaker, Psychology Club, Eton College, UK, 2020.
- Brain Generators of Delight, Desire and Dread. Invited virtual speaker, Psychiatry Grand Rounds lecture, University of California at San Diego, 2020.
- Can 'Wanting' Detach from 'Liking' and from Predictions of 'Liking'? Invited seminar, Institute of Philosophy, University of London, U.K., 2020
- Motivation, pleasure and pain: latest developments. Invited lecture (in *The Agony and the Ecstasy: An afternoon with Kent Berridge and Frederick Toates* event sponsored by The Open University at the London Schoool of Economics, U.K., 2020.
- Brain mechanisms of liking and wanting food rewards. Invited speaker, Rowett Institute, University of Aberdeen, Scotland, U.K., 2020.

- The Incentive-Sensitization model of obesity. Invited speaker, 5<sup>th</sup> NeuroMi (Neuroscience Milan) International Meeting: Food for Brain. Milan, Italy, 2019.
- Brain generators of delight, desire and dread. Invited colloquium, Institute of Psychology, Friedrich-Alexander Universitat, Erlangen, Nuremberg, Germany 2019.
- Liking and wanting in the brain. Invited colloquium, School of Psychology, University of Sussex, Falmer, Brighton, England 2019.
- Brain generators of liking and wanting. Invited speaker, Neurosciences Graduate Program, University of California at San Diego, 2019.
- Incentive-Sensitization Theory of Addiction. Invited Grawemeyer Award Public Lecture (with Terry Robinson), University of Louisville, Louisville, Kentucky, 2019.
- Liking and wanting in the brain. Invited inaugural Distinguished Spence Lecture, Iowa Neuroscience Institute & Department of Psychology, University of Iowa, 2019
- Addiction as incentive-sensitization: status and implications. Invited speaker (co-presented with Richard Holton), Princeton Workshop on Drugs and Addiction, Department of Philosophy, Princeton University, 2018.
- Affect and motivation in the brain. Invited colloquium, Department of Psychology, University of Southern California. Los Angeles, 2018.
- Brain limbic generators of delight, desire and dread. Invited Distinguished Speaker lecture, Department of Psychology, University of California at Davis, 2018.
- Liking, wanting & choosing. Invited speaker, 8th Annual Interdisciplinary Symposium on Decision Neuroscience, Society for Neuroeconomics, Ann Arbor, MI 2018.
- Is addiction compulsive? An incentive-sensitization view. Invited symposium speaker, 44<sup>th</sup> Meeting of Society for Philosophy and Psychology, Ann Arbor, MI, 2018.
- Brain systems of chemosensory liking and wanting: roles in addictions. Invited Keynote Givaudan Lecturer, Association for Chemoreception Sciences conference, Bonita Springs, Florida 2018.
- Update on brain mechanisms of liking and wanting for food rewards. Invited speaker, Appetitive Motivation Seminar, Columbia University, New York, N.Y., 2017.
- Understanding addiction from the brain's viewpoint. Invited speaker. Federal Defender Conference -Eastern District of Michigan, Criminal Justice Act Seminar, Detroit Courthouse, Detroit 2017.
- Brain Limbic systems of liking and wanting. Invited seminar, Hotchkiss Brain Institute, University of Calgary, Calgary, Alberta, Canada 2017.
- Limbic mechanisms of delight, desire and dread. Invited Harley Hotchkiss Lecture, Canadian Centre for Behavioural Neuroscience, University of Lethbridge, Lethbridge, Alberta, Canada 2017.
- Brain generators of wanting and liking. Invited colloquium, Department of Psychology, University of British Columbia, Vancouver, Canada 2017.
- Desire beyond reinforcement learning. Invited speaker, Reinforcement Learning and Decision Making conference, Ann Arbor, Michigan, 2017.
- Pleasure & Desire: some wanting & liking issues. Invited speaker, Philosophy of Mind symposium on Pleasure, Reward & Value. Philosophy Department, Brown University, Providence R.I., 2017.
- Emotion and the brain. Invited keynote address for CellPress NYU Lablinks conference on emotion and the brain, New York University, New York, 2016.
- Brain wellsprings of delight, desire and dread. Invited award address for Distinguished Scientific Contribution Award, American Psychological Association, Denver, 2016.
- Affective Neuroscience of Reward Wanting and Liking. Invited speaker, Affective Neuroscience Symposium, Dartmouth College, Hanover, New Hampshire, 2016
- Affective neuroscience of wanting and liking. Invited speaker, Society for the Study of Motivation annual conference, Chicago, 2016.
- Delight, desire and dread: Generators in the brain. Invited colloquium, Department of Psychology, Cornell University, Ithaca, N.Y., 2016.
- Brain limbic systems for liking and wanting. Invited D.O. Hebb Memorial Lecturer, Psychology & Neuroscience Dept., Dalhousie University, Halifax, Nova Scotia, Canada, 2016.
- Brain mechanisms of 'wanting' and 'liking' in making decisions. Invited speaker, Conference on Emotion and Value-Based Decision Making, Gatsby Computational Neuroscience Centre, University College London, London, UK 2016.