Ilia N. Karatsoreos, Ph.D.

Mailing Address:

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Amherst, MA, 01030

Education:

Postdoc	Neuroendocrinology	The Rockefeller University	2012
Ph.D.	Psychology	Columbia University	2008
M.Phil.	Psychology	Columbia University	2006
M.A.	Psychology	Columbia University	2003
Hon.BSc.	Psychology	University of Toronto	2001

Affiliations:

University of Massachusetts, Amherst (as of 2020)

Faculty, Department of Psychological and Brain Sciences, UMass.

Member, Institute of Applied Life Sciences, UMass.

Member, Neuroscience and Behavior Graduate Program, UMass.

Member, Organismal and Evolutionary Biology graduate Program, UMass.

Washington State University, Pullman (from 2012-2020)

Faculty, Department of Integrative Physiology and Neuroscience, WSU

Associate Faculty, School of Molecular Biosciences, WSU

Member, Program in Neuroscience, WSU

Member, Center for Reproductive Biology, WSU

Member, Sleep and Performance Research Center, WSU

Areas of Interest:

Circadian Rhythms/Sleep, Stress, Behavioral Neuroscience, Endocrinology,

Metabolism/Obesity, Aging, Glucocorticoids, Neural Plasticity, Cognition, Sex Differences.

Research/Teaching Experience:

2020-Present	University of Massachusetts, Amherst.
2017-2020	Tenured Associate Professor, Department of Integrative Physiology and Neuroscience, Washington State University, Pullman, WA.
2012-2017	Tenure-track Assistant Professor, Department of Integrative Physiology and Neuroscience, Washington State University, Pullman, WA.
2008-2012	Postdoctoral Fellow, Laboratory of Neuroendocrinology,

The Rockefeller University, New York City, NY. **Professional Memberships:**

Society for Neuroscience Society for Behavioral Neuroendocrinology

Society for Research on Biological Rhythms Endocrine Society

Professional Service:

Professional Society Leadership Positions:

Secretary (Elected), Canadian Society for Chronobiology (2021-Present)

Executive Committee, *Society for Research on Biological Rhythms* (non-voting; 2017-Present) Chair, Mentorship and Professional Development, *Society for Research on Biological Rhythms* (2017-Present)

Chair, Junior Faculty Workshops, Society for Research on Biological Rhythms (2016)

Professional Society Service (non-leadership):

Annual Meeting Organizing Committee, Canadian Society for Chronobiology (2021)

Travel award committee, Neurobiology of Stress Workshop (2019, 2020).

Abstract Reviewer, The Endocrine Society (2018-2020).

Abstract Reviewer, Ann. Biomedical Research Conf. for Minority Students (ABRCMS) (2020)

Editorial Boards:

Associate Editor, Behavioral Medicine (2016-present).

Editorial Board, Stress (2018-present).

Faculty of 1000, Faculty Member, Integrative Physiology Section (2016-present).

Editorial Board, Endocrinology (2016-2019).

National/International Advisory Service:

National Aeronautics and Space Administration (NASA) Rodent Research Science Definition Meeting (Rodent Research Habitat Configuration), invited panelist (2019).

National Institute of Allergy and Infectious Disease (**NIAID**) Workshop: *Vector Borne Diseases: Caveats of Mouse Models*, invited panelist (2018).

National Institute of Diabetes and Digestive and Kidney Disease (**NIDDK**) Workshop: *Circadian and Sleep Disruption and Metabolism*, invited panelist (2015).

National Heart, Lung and Blood Institute (**NHLBI**) Workshop: *Developing Biomarker Arrays Predicting Sleep and Circadian-Coupled Risks to Health*, invited participant (2015).

Peer Review Service (selected):

Associate Editor, Behavioral Medicine (2016-Present)

Editorial Board Member, Stress (2018-Present)

Editorial Board Member, Endocrinology (2016-2019)

Ad-hoc Peer Reviewer for over 25 journals, including PNAS; European; Journal of

Neuroscience, Endocrinology; Brain, Behavior and Immunity; Journal of Biological Rhythms.

Grant Review Service (Past 5yrs)

Grant Review Panelist, National Institutes of Health (2021; Temporary Member)

Biobehavioral Mechanisms of Emotion, Stress and Health (MESH) Study Section

Grant Review Panelist, Canadian Institutes of Health Research (2021)

Neurobiological Basis of Behavioural Processes (BSA), Program Grants

Grant Review Panelist, Brain Canada Foundation (2021)

Future Leaders Award Program

Grant Review Panelist, Military Operational Medicine Research Program (2021)

Psychological Health and Resilience Panel

College of Expert Reviewers, UK Medical Research Council (2021-Present)

Adolescence, Mental Health, and the Developing Mind Initiative

Grant Review Panelist, National Institutes of Health (2019; Temporary Member)

Neuroendocrinology, Neuroimmunology, Rhythms and Sleep (NNRS) Study Section

Grant Review Panelist, *National Institutes of Health* (2019, 2020, 2021)

National Center for Complementary & Integrative Health, Training and Education Grant Review Panel

Grant Review Panelist, Canadian Institutes of Health Research (2019)

Team Grant Review Panel

Grant Review Panelist, National Science Foundation (2016; 2018)

Directorate of Biological Sciences, Division of Integrative Organismal Systems (IOS)

Grant Review Panelist, Canadian Institutes of Health Research (2017)

Catalyst Grant Program

Grant Review Panelist, Brain Canada Foundation (2018, 2020)

New Investigator Capacity Building Award Program

Ad-hoc reviewer, *National Science Foundation* (Yearly, 2017-Present)

Ad-hoc reviewer, Medical Research Council (UK) (2016-2019)

Ad-hoc reviewer, Netherlands Organization for Scientific Research (2015, 2017, 2019)

Ad-hoc reviewer, Natural Sciences & Engineering Research Council of Canada (2015-Present)

Ad-hoc reviewer, Czech Science Foundation (2016)

Institutional Service:

Departmental Service (University of Massachusetts only)

University of Massachusetts

Co-Chair, Departmental Personal Committee (DPC) for Dept. of PBS (2020-Present)

Member, Departmental Personal Committee (DPC) for Dept. of PBS (2020-2021)

College and University Service (University of Massachusetts only)

Chair, Graduate Operations Committee, Neuroscience and Behavior program (2020-Present)

Member, Steering Committee, Institute for Biological Neurotechnology (2021-Present)

Member, Planning Committee, Institute for Biological Neurotechnology (2020-2021)

Member (ex officio), Steering Committee, Neuroscience and Behavior program (2020-Present)

Member, Graduate Operations Committee, Molecular and Cellular Biology Pgrm (2020-Present)

Member, Graduate Operations Committee, Neuroscience and Behavior program (2019-Present)

Lead, Integrated Study of Biological Rhythms and Sleep, College of Natural Science (Current)

Academic Honors and Awards:

WSU CVM Dean's Award for Outstanding Junior Faculty Research Achievement (2016)

National Science Foundation, CAREER Award (2016)

Sleep Research Society, Junior Investigator Travel Fellowship (2015)

Society for Behavioral Neuroendocrinology, Young Investigator Award (2006)

Canadian Psychological Association, Academic Excellence Award/Thesis Award (2001)

Education and Training Awards:

Fellowships and Training Awards

Helman Foundation, Gary R. Helman Endowed Postdoctoral Fellowship (2010-2011)

Canadian Institutes of Health Research, Postdoctoral Fellowship (2007-2010)

Natural Sciences and Engineering Research Council of Canada, Fellowship (2002-2006)

Columbia University, University Teaching Fellowship (2001-2006)

Columbia University, University Faculty Fellowship (2001-2006)

Trainee/Travel Awards (During PhD and Postdoc)

Neurobiology of Stress Workshop, Trainee Award (2010)

Society for Behavioral Neuroendocrinology, Young Investigator Award (2006)

Columbia University, Departmental Travel Grants, (2002; 2003; 2004; 2005)

Society for Behavioral Neuroendocrinology, Travel Award (2004)

Society for Research on Biological Rhythms, Travel Award (2002, 2004)

Personal Professional Development

iCAM Culturally Aware Mentorship training (2021).

National Research Mentorship Network Mentorship training (2020).

NSF CAREER Awardee Workshop, invited speaker/participant (2020).

National Institute on Aging (NIA) New Investigators Forum, invited speaker/participant (2016).

Teaching Academy, College of Veterinary Medicine, Participant (2012-2020).

Current Teaching

2020-Present University of Massachusetts, Amherst, MA.

Introduction to Behavioral Neuroscience (PSYCH330)

-Course director, 65-75 students, 3 credits (Spring, 2021)

Brain and Body Clocks (PSYCH391/591)

-Course director, 16 students, 3 credits. (Fall, 2020; 2021)

Biological Rhythms Journal Club (2020 to present, each semester)

-Course director, 6-12 participants, 1-3 credits.

Responsible Conduct of Research (2020-Present; Team Taught)

-Course Instructor 12-20 participants, non-credit.

Research and Scholarship

Chaired Conference Symposia (Includes upcoming, Past 5 years)

- 1. Chair, "Panel Discussion: Sex and Gender in Chronobiology Research", Canadian Society for Chronobiology Annual Meeting (*Virtual*).
- 2. Chair, "Hypothalamic-Pituitary-Adrenal Axis", Neurobiology of Stress Workshop, Columbia, SC. (May, 2020; postponed to 2021)
- 3. Co-Chair and Organizer, "Food for Thought: Diet and Environmental Impacts on Behaviour and Physiology", International Behavioral Neuroscience Society Annual Conference, Cairns, Australia. (June, 2019). *Picked as one of two "Hot Topics".
- 4. Chair, "Counting sheep and calories: Sleep, Time and Obesity", Obesity Society "Obesity Week" Annual Conference, Los Angeles, CA. (November, 2015).
- 5. Chair and Organizer, "The many pathways to plasticity in the stress system: Sex, Development, and Environment", International Society for Psychoneuroendocrinology (ISPNE) Annual Conference, Edinburgh, Scotland. September, 2015.

Invited Talks and Symposia (Past 5 years)

- 1. "From brain to body and back: consequences of disrupted body clocks on health", Brain Health Research Institute Seminar Series, Kent State University, Kent, OH, April, 2021 (Moved to Virtual)
- 2. "Biological Timing and Brain Circuits: Circadian influences on Prefrontal Cortex function", National Science Foundation CAREER Awardee Conference, Alexandria, VA, November, 2020. (*Moved to Virtual*)
- 3. "Physiological and Neurobehavioral Costs of Disrupted Body Clocks", Columbia University, Department of Psychology Colloquium Series, New York City, NY, September, 2020. (*Moved to Virtual*)
- 4. "Light as a desynchronizer of neurometabolism and sleep", Society for Research on Biological Rhythms Meeting, in "Integration of Environmental Signals into Circadian Systems" session, Amelia Island, FL, June, 2020. (Moved to Virtual)
- 5. "Environmental modulation of brain metabolic processes: consequences for behavior", International Behavioral Neuroscience Society Conference, Cairns, Australia, June, 2019.
- 6. "Disrupted circadian rhythms and glucocorticoids: from brain to periphery", Pan-American Physiological Society "Physiology without borders" conference, Havana, Cuba, May, 2019.
- 7. "Sick and Tired of being Tired and Sick: Neurobehavioral and Physiological costs of disrupted homeostasis", University of Massachusetts, Amherst, Neuroscience Institute Special Seminar Series, February, 2019.

- 8. "Significance of Circadian Clocks in Health and Disease: From Metabolism to Immune Function", Roswell Park Comprehensive Cancer Center Seminar Series, Buffalo, NY. January, 2019.
- 9. "Circadian rhythms and Immune Function", National Institute of Allergy and Infectious Diseases, Bethesda, MD. August, 2018.
- 10. "Neurobehavioral and Physiological Consequences of Failing to Adapt to Environmental Challenge", Institute of Psychosomatic Medicine, University of Ulm, Ulm, Germany. July, 2018.
- 11. "The metabolic costs of allostatic load", Neurobiology of Stress Workshop, Banff, Alberta, Canada. June, 2018.
- 12. "Failure to adapt: The neurobehavioral and physiological consequences of disrupted homeostatic systems", Neuroscience Program Colloquium Series, University of Colorado, Boulder. Boulder, CO. January, 2018.
- 13. "Consequences of disrupted homeostatic systems for brain, behavior, and physiology." "Stress Conference: Past, Present, Future", Princeton University, Princeton, NJ. June, 2017.
- 14. "Neurobehavioural consequences of disrupted stress and circadian systems." Seminar Series, Department of Psychology, University of Guelph, Guelph, Canada. May, 2017.
- 15. "Timing is everything: The neurobehavioral costs of disrupted sleep and circadian rhythms." Seminar Series, Department of Anatomy and Neurobiology, Virginia Commonwealth University Medical Center, Richmond, VA. May, 2017.
- 16. "Circadian Clocks and Disease: Some Opportunities for Dialogue between Math and Biology." American Mathematical Society Meeting, Washington State University, Pullman, WA. April, 2017.
- 17. "Failure to adapt: Neurobehavioral and Metabolic Consequences of Disrupted Homeostatic Systems." Department of Biomedical Sciences Seminar Series, University of Guelph, Guelph, Canada. April, 2017
- 18. "Failure to adapt: Neurobehavioral and Metabolic Consequences of Disrupted Circadian Timing." Adaptive Life Symposium, Groningen Institute of Evolutionary Life Sciences, Groningen, Netherlands. March, 2017
- 19. "Circadian Clocks and Disease: Opportunities for Dialogue between Math and Biology." Mathematical Biology Seminar Series, Department of Mathematics, Washington State University, Pullman, WA. November, 2016.
- 20. "Failure to adapt: Neurobehavioral and Metabolic Consequences of Disrupted Homeostatic Systems." Invited Seminar Speaker, Oregon Institute for Occupational Health Sciences, Oregon Health and Sciences University, Portland, OR. October, 2016.
- 21. "Circadian disruption as a modulator of resilience to stress: neurobehavioral and physiological effects." Invited Symposium Speaker in "Modeling shift work and

- circadian disruption: from neuron to organism" at the European Sleep Research Society meeting, Bologna, Italy, September 2016.
- 22. "Environmentally driven metabolic dysregulation as a model of accelerated aging." National Institute on Aging, Division of Aging Biology New Investigators Forum, Bethesda, MD, June 2016.
- 23. "Effects of circadian and sleep disruption on central and peripheral innate immune responses" Invited Symposium Speaker in "Illuminating the Role of Sleep and the Circadian System on Neuroinflammatory Responses" at American Academy of Sleep Medicine and Sleep Research Society Annual SLEEP meeting, Denver, CO, June 2016.
- 24. "Mental and physical health consequences of disrupted circadian timing." Virginia Tech Life Sciences Seminar Series, Center for Biological Complexity, Virginia Tech University, Blacksburg, VA, April 2016.
- 25. "Mental and physical health consequences of disrupted circadian timing." Behavioral Neuroscience Seminar Series, Department of Psychology, University of California, Berkeley, Berkeley, CA, March 2016.

Academic Schools/Workshops (Past 5 years):

- 1. Invited participant, "Vector Borne Diseases: Caveats of Mouse Models" workshop, hosted by the National Institute of Allergy and Infectious Diseases (NIAID); Bethesda, MD. August, 2018.
- 2. Faculty Mentor and Instructor, Norwegian Research School in Neuroscience, "Circadian rhythms and sleep: their role in mental and physical health, safety and productivity", University of Bergen, Norway. Summer School August 6-12th, 2017.
- 3. Co-Organizer and Speaker, "Modeling shift work and circadian disruption: from neuron to organism" workshop Co-hosted with Dr. Janne Grønli at the University of Bergen, Norway, September 2016.
- 4. Invited participant, "Impact of Sleep and Circadian Disruption on Energy Balance and Diabetes" workshop hosted by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the Sleep Research Society (SRS); Bethesda, MD, February 2015.
- 5. Invited participant, "Developing Biomarker Arrays Predicting Sleep and Circadian-Coupled Risks to Health" workshop hosted by the National Heart, Lung, and Blood Institute (NHLBI) and the Sleep Research Society (SRS); Bethesda, MD, April 2015.

Grant Support:

Current

PI: "The role of endocannabinoids in circadian disruption induced metabolic dysregulation" 1R01 DK119811-01, National Institute of Diabetes and Digestive and Kidney Diseases, \$1,973,700 (total costs), 2018-2023. Effort: 25%

PI: "Biological Timing and Brain Circuits: Circadian influences on Prefrontal Cortex function" National Science Foundation. CAREER Award 1553067. \$922,868, total costs 2016-2021. Effort: 16.7%

Co-PI: "A brain self-defense mechanism: keeping time to guard from the "threat" within" W.M. Keck Foundation Medical Research Grant Program, \$1,000,000 total costs, 2020-2023. (Contact PI: J. Krueger, WSU Spokane).

Co-I: "A Stitch in Time: Synchronizing Wound Healing with our Body Clock". Provost's Interdisciplinary Pilot Grants, UMass Amherst. \$60,000 total costs, 2020-2022

Completed (Past 5 Years)

Co-I: "Effects of developmental cannabis exposure on prefrontocortical structure and function" 1R21 DA043722 (PI: Ryan McLaughlin, IPN), National Institute of Drug Abuse, \$418,000, total costs 2017-2019. Effort: 10%

PI: "SRBR 2018 Meeting: Fostering Training and Diversity in Biological Rhythms Research" NSF Meeting Grant 1822042, \$30,000 total costs 2018. Effort: N/A.

PI: "Environmentally driven metabolic dysregulation as a model of accelerated aging" 1R21 AG050054, National Institute of Aging, \$415,000, total costs 2015-2018. Effort: 20%

Peer Reviewed Research & Review Articles:

Current Web of Science h-index = 31 Current Google Scholar h-index = 36

Average Citations/article = 50

of "Highly Cited" Neuroscience Papers (in top 1% of Neuroscience for given year) = 2 # of Articles Featured on Faculty of 1000 = 5

All bibliometrics taken from Web of Science or GoogleScholar (November 1, 2020) <u>Underline</u>=shared first author; *mentored graduate student; **mentored undergraduate student

- 1) Raggozoni, F.J.*, Arnold, R.A., Kowalski, C.W., Savenkova, M., <u>Karatsoreos, I.N.**</u>, <u>Peters, J.H.**</u> (2020) "Corticosterone inhibits vagal afferent glutamate release in the Nucleus of the Solitary Tract via retrograde endocannabinoid signaling" *American Journal of Physiology Cell Physiology*. PMID: 32966126

 **=Joint Senior author.
- 2) Wallace, N.K.*, Pollard, F.**, Savenkova, M., **Karatsoreos, I.N.** (2020) "Effect of Aging on Daily Rhythms of Lactate Metabolism in the Medial Prefrontal Cortex of Male Mice." *Neuroscience*. (20)30475-9. PMID: 32717298.
- 3) Pearson, G.L.*, Savenkova, M., Barnwell, J.J.**, **Karatsoreos, I.N.** (2020) "Circadian desynchronization alters metabolic and immune responses following lipopolysaccharide inoculation in male mice." *Brain Behav Immun.* 88:220-229. Epub 2020 May 12. PMID: 32413558
- 4) Oles, V.*, Koh, K.M.S., Dykstra-Aiello, C.J., Savenkova, M., Gibbons, C.M., Nguyen, J.T., **Karatsoreos, I.,** Panchenko, A., Krueger, J.M. (2020) "Sleep- and time of daylinked RNA transcript expression in wild-type and IL1 receptor accessory protein-null mice." *J Appl Physiol* (1985). *Jun 1;128(6):1506-1522*. PMID: 32324480.
- 5) Hay, R.E., Edwards, A., Klein, M., Hyland, L., MacDonald, D., **Karatsoreos, I.N.**, Hill., M.N., Abizaid, A. (2020) "Ghrelin receptor signalling is protective against glucocorticoid induced obesity in male mice." *Endocrinology. Mar 1;161(3):bqz023*. PMID: 31748785.
- 6) Satterfield, B.C.*, Savenkova, M.I., **Karatsoreos, I.N.**, Jackson, M.L., Belenky, G., Van Dongen, H.P.A. (2020) "Interleukin-6 (IL-6) response to a simulated night-shift schedule is modulated by brain-derived neurotrophic factor (*BDNF*) genotype". *Chronobiol Int. Aug 20:1-5*. PMID: *32819178*
- 7) Kinlein, S.A.* and **Karatsoreos, I.N.** (2020) "The hypothalamic-pituitary-adrenal axis as a substrate for stress resilience: interactions with the circadian clock." *Frontiers in Neuroendocrinology. Jan 56:100819.* PMID:31863788 (Cited: 0; Journal IF: 9.4)
- 8) Balsevich, G., Abizaid, A., Chen, A., **Karatsoreos, I.N.,** Schmidt, M.V. (2019) "Stress and glucocorticoid modulation of feeding and metabolism." *Neurobiology of Stress; Online ahead of Print.* PMID: 31193462. (Cited: 0; Journal IF: Pending).

- 9) Kinlein, S.A*., Phillips, D.J.*, Keller, C.**, **Karatsoreos, I.N.** (2019) "Role of corticosterone in altered neurobehavioral responses to acute stress in a model of compromised hypothalamic-pituitary-adrenal axis function." *Psychoneuroendocrinology*. April 102:248-255. PMID 30594817. (**Cited: 0; Journal IF: 5.5).**
- 10) Lananna B.V., Nadarajah C.J., Izumo M., Cedeño M.R., Xiong D.D., Dimitry J., Tso C.F., McKee C.A., Griffin P., Sheehan P.W., Haspel J.A., Barres B.A., Liddelow S.A., Takahashi J.S., **Karatsoreos I.N.**, Musiek E.S. (2018) "Cell-Autonomous Regulation of Astrocyte Activation by the Circadian Clock Protein BMAL1." *Cell Rep.* Oct 2;25(1):1-9.e5. PMID: 30282019. (Cited: 5; Journal IF: 8.3).
- 11) Skornyakov, E., Gaddameedhi, S., Paech, G.M., Sparrow, A.R., Satterfield, B.C., Shattuck, N.L., Layton, M.E., **Karatsoreos, I.N.**, Van Dongen, H.P.A. (2019) "Cardiac Autonomic Activity during Simulated Shift Work". *Industrial Health*. Feb5;57(1):118-132. PMID:30089765 (Cited: 0; Journal IF: 1.7).
- 12) <u>Kinlein, S.A.*</u>, <u>Shahanoor, J.</u>, Romeo, R.D., **Karatsoreos, I.N.** (2017) "Chronic corticosterone treatment during adolescence has significant effects on metabolic measures and skeletal development in male C57BL6/N mice". *Endocrinology*. 158(7): 2239–2254. PMID: 28510653. (Cited: 9; Journal IF: 4.6).
- 13) **Karatsoreos, I.N.**. (2017) "The complexity of simplicity: Role of sex, development, and environment in modulation of the stress response." *Journal of Neuroendocrinology*. 28(8). PMID: 27005563. (Cited: 0; Journal IF: 3.14).
- 14) Gagnidze, K., Hajdarovic, K., Moskalenko, M., **Karatsoreos, I.,** McEwen, B.S., Bullock, K. (2016). "REV-ERBa mediates circadian sensitivity to mortality in murine vesicular stomatitis virus-induced encephalitis." *Proceedings of the National Academy of Sciences*. 113(20):5730-5. PMID: 27143721 (Cited: 18; Journal IF: 9.8).
- 15) Gray, J.M., Wilson, C.D.*, Lee, T.T.Y., Pittman, Q.J., Deussing, J.M., Hillard, C.J., McEwen, B.S., Schulkin, J., **Karatsoreos, I.N.**, Patel, S., Hill, M.N. (2016). "Sustained Glucocorticoid Exposure Recruits Cortico-limbic CRH Signaling to Modulate Endocannabinoid Function." *Psychneuroendocrinology*. 66:151-8. PMID: 26821211. (Cited: 19; Journal IF: 5.5)
- 16) Bocarsly, M.E., Fasolino, M., Kane, G.A., LaMarca, E.A., Kirschen, G., **Karatsoreos, I.N.**, McEwen, B.S., Gould, E. (2015) "Obesity diminishes synaptic markers, alters microglial morphology and impairs cognitive function". *Proceedings of the National Academy of Sciences*. 112(51):15731-6. PMID: 26644559 (Cited: 39; Journal IF: 9.8)
- 17) Kaplowitz, E., Savenkova, M., **Karatsoreos, I.N.**, Romeo, R.D. (2016) "Somatic and neuroendocrine changes in response to chronic corticosterone exposure during adolescence in male and female rats". *Journal of Neuroendocrinology*. 28:2; PMID: 26568535 (Cited: 4; Journal IF: 3.14)

- 18) McEwen, B.S., Bowles, N.P., Gray, J.D., Hill, M.N., Hunter, R.G., Karatsoreos, I.N., Nasca, C. (2015) "Mechanisms of stress in the brain." *Nature Neuroscience*. 18; 1353-1363. PMID: 26404710 (Cited: 328; Journal IF: 16.1)

 *Hot Paper; Top 1% Highly Cited papers in Neuroscience and Behavior (2016-19)
- 19) Kinlein, S.*, Wilson, C.D., Savenkova, M., **Karatsoreos, I.N.** (2015) "Disruption of HPA axis leads to divergent neurobehavioral responses to stress." *Frontiers in Psychiatry*. 6:31. PMID: 25821436. (Cited: 28; Journal IF: 3.5)
- 20) Phillips, D.P.*, Savenkova, M., **Karatsoreos, I.N.** (2015) "Environmental disruption of the circadian clock leads to altered sleep and immune responses in mouse." *Brain, Behavior, and Immunity.* Jul; 47:14-23. PMID: 25542734. (Cited: 19; Journal IF: 6.2)
- 21) <u>Bowles, N.P*.</u>, <u>Karatsoreos, I.N.,</u> Li, X., Vemuri, V.K., Wood, J., Li, Z., Tamashiro, K., Schwartz, G.J., Makriyannis, A.M., Kunos, G., Hillard, C.J., McEwen, B.S., Hill, M.N. (2015) "A peripheral endocannabinoid mechanisms contributes to glucocorticoid-mediated metabolic syndrome." *Proceedings of the National Academy of Science*. 112(1):285-90. PMCID: PMC4291642. (Cited: 43; Journal IF: 9.8)
- 22) Cormier, H.C., Maggiore, V., **Karatsoreos, I.N.**, Koletar, M., Ralph, M.R., (2015). "Suprachiasmatic vasopressin and the circadian regulation of goal-directed locomotor behavior." *European Journal of Neuroscience*. 41(1):79-88. PMID:24893679. (Cited: 5; Journal IF: 3.5)
- 23) **Karatsoreos I.N.**, (2014) "Links between Circadian Rhythms and Psychiatric Disease" *Front Behav Neurosci*. May 6;8:162. PMID: 24834040. (Cited: 55; Journal IF: 4.2)
- 24) Dhar, M., Zhu, M., Impey, S., Lambert, T.J., Bland, T., **Karatsoreos I.N.**, Nakazawa, T., Appleyard, S.M., Wayman, G.A. (2014) "Leptin induces hippocampal synaptogenesis via CREB-regulated microRNA-132 suppression of p250GAP. *Mol Endocrinol*. 28(7): 1073-87 PMID: 24877561. (Cited: 39; Journal IF: 4.2)
- 25) Romeo, R.D., Minhas, S., Svirsky, S.E., Hall, B.S., Savenkova, M., **Karatsoreos, I.N.** (2014). "Pubertal Shifts in Adrenal Responsiveness to Stress and Adrenocorticotropic Hormone in Male Rats." *Psychoneuroendocrinology*. 42:146-52. PMID: 24636511 (Cited: 19; Journal IF: 5.5)
- 26) Wei J., Yuen E.Y., Liu W., Li X., Zhong P., **Karatsoreos I.N.**, McEwen B.S., Yan Z. (2013) "Estrogen protects against the detrimental effects of repeated stress on glutamatergic transmission and cognition." *Mol. Psychiatry*. 19:588-98 PMID: 23835908. (Cited: 35; Journal IF: 15.1) **Featured in Faculty of 1000.
- 27) **Karatsoreos, I.N.,** Thaler, J.P., Borgland, S.L., Champagne, F.A., Hurd, Y.L., Hill, M.N. (2013) "Food for Thought: Hormonal, Experiential and Neural Influences on Feeding and Obesity." *Journal of Neuroscience*, Nov 6; 33(45): 1710-6. PMID: 24198352. (Cited: 19; Journal IF: 6.7)

- 28) **Karatsoreos, I.N.** and McEwen, B.S. (2013) "The neurobiology and physiology of resilience and adaptation across the life course." *Journal of Child Psychology and Psychiatry*, 54(4):337-47. PMID: 23517425. (Cited: 91; Journal IF: 5.7)
- 29) **Karatsoreos, I.N.** (2012) "Effects of circadian disruption on mental and physical health". *Current Neurology and Neuroscience Reports*, 12(2):218-25. PMID: 22322663. (Cited: 22; Journal IF: 3.7)
- 30) Cassano, A.E.*, White, J.R., Penraat, K.A., Wilson, C.D.*, Rasmussen, S., **Karatsoreos, I.N.** (2012) "Anatomic, hematologic, and biochemical features of C57BL/6NCrl mice maintained on chronic oral corticosterone." *Comparative Medicine* Oct;62(5):348-60. PMID: 23114038. (Cited: 14; Journal IF: 1.1)
- 31) Butler, M.P., **Karatsoreos, I.N.**, LeSauter, J., and Silver, R. (2012) "Dose-dependent effects of androgens on the circadian timing system and its response to light." *Endocrinology*. 153(5):2344-52. PMID: 22492303. (Cited: 23; Journal IF: 4.6)
- 32) Bowles, N.P.*, Hill, M.N., Bhagat S.M.*, **Karatsoreos, I.N.**, Hillard, C.J., McEwen, B.S. (2012) "Chronic, noninvasive glucocorticoid administration suppresses limbic endocannabinoid signaling in mice." *Neuroscience*, Mar 1;204:83-9. PMID: 21939741. (Cited: 29; Journal IF: 3.3)
- 33) **Karatsoreos, I.N.** and McEwen, B.S. (2011) "Psychobiological Allostasis: Resistance, Resilience and Vulnerability." *Trends in Cognitive Science*. 15(12): 576-584. PMID: 22078931. (Cited: 177; Journal IF: 21.1) **Top 1% Highly Cited papers in Psychiatry/Psychology (2012-2014)*.
- 34) Tamashiro, K.L., Sakai, R.R., Shively, C.A., **Karatsoreos, I.N.**, and Reagan, L.P. (2011) "Chronic stress, metabolism, and metabolic syndrome." *Stress*, 14(5): 468–474. PMID: 21848434 (Cited: 55; Journal IF: 3.5)
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