Ilia N. Karatsoreos, Ph.D.

Mailing Address:

Ilia N. Karatsoreos, Ph.D. Department of Psychological and Brain Sciences, University of Massachusetts, Amherst Amherst, MA, 01030

Personal Information:

Birthplace: Toronto, Ontario, Canada Birth Date: February, 26, 1978 Citizenship: Canadian US Permanent Resident ("Green Card")

Email: ikaratsoreos@umass.edu

Education:

Postdoc Ph.D.	Neuroendocrinology Psychology	The Rockefeller University Columbia University	2012 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	Tenured Associate Professor, Psychological and Brain Sciences, 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 Research on Biological Rhythms Endocrine Society Society for Behavioral Neuroendocrinology Federation of European Neuroscience Societies

Professional Service:

Professional Society Leadership Positions:

Executive Committee, *Society for Research on Biological Rhythms* (non-voting; 2017-Present) Chair, 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):

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:

Associate Editor, *Behavioral Medicine* (2016-Present) Editorial Board Member, *Stress* (2018-Present) Editorial Board Member, *Endocrinology* (2016-2019)

Ad-hoc reviewer, Journal of Neuroscience	Ad-hoc reviewer, Physiology and Behavior
Ad-hoc reviewer, Biological Psychiatry	Ad-hoc reviewer, Brain Research
Ad-hoc reviewer, Molecular Psychiatry	Ad-hoc reviewer, Developmental Neuroscience
Ad-hoc reviewer, Psychoneuroendocrinology	Ad-hoc reviewer, Trends in Neurosciences
Ad-hoc reviewer, Brain, Beh., and Immunity	Ad-hoc reviewer, Neuroendocrinology
Ad-hoc reviewer, Neuropsychopharmacology	Ad-hoc reviewer, Cerebral Cortex
Ad-hoc reviewer, Hormones and Behavior	Ad-hoc reviewer, Stress
Ad-hoc reviewer, Neuroscience	Ad-hoc reviewer, Neuromolecular Medicine
Ad-hoc reviewer, European J. of Neuroscience	Ad-hoc reviewer, Exper. Brain Research
Ad-hoc reviewer, Biology of Reproduction	Ad-hoc reviewer, Behavioral Neuroscience

Ad-hoc reviewer, *Frontiers Journals* Ad-hoc reviewer, *Neurobiology of Stress* Ad-hoc reviewer, *Translational Psychiatry* Ad-hoc reviewer, *Behavioral Brain Research*

Grant Review Service

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) 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) Ad-hoc reviewer, Alcohol and Drug Abuse Program, Washington State University (2012-2019)

Institutional Service:

Departmental Service

University of Massachusetts

Chair, Graduate Operations Committee, Neuroscience and Behavior program (2020-Present) Member (*ex officio*), Steering Committee, Neuroscience and Behavior program (2020-Present) Member, Graduate Operations Committee, Neuroscience and Behavior program (2019-Present)

Past Service

Washington State University

Assoc. Director of Graduate Studies, Integrative Physiology and Neuroscience (2016-2020) Dept. of IPN Strategic Planning Leadership Committee (2018-2020) Dept. of IPN Undergraduate Scholarship Committee (2019-2020) Graduate Studies Committee, Chair (2016-2020) Integrated Program in Biomedical Science (iPBS) Executive Committee, Member (2016-2020) Graduate Program Executive Committee, Member (2015-2020) Neuroscience Curriculum Committee, Member (2012-2020) Graduate Studies Committee, Member (2012-2020) Graduate Studies Committee, Member (2012-2015) Neuroscience Faculty Search Committee (2013; Successful hire: Dr. Ryan McLaughlin) Organizer, Department of IPN Seminar Series (Spring, 2014)

College and University Service

WSU College of Veterinary Medicine Faculty Executive Committee (2018-2020) WSU College of Veterinary Medicine Scholarship Committee, Past Member (2012-2017) WSU Integrated Vivarium Services Leadership Committee, Dept. Representative (2017-2020) WSU Vivarium Steering Committee, Past Member (2012-2014)

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

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).

Teaching, Outreach, and Mentorship *Teaching*

2020-Present	University of Massachusetts, Amherst, MA. Brain and Body Clocks (Fall, 2020) -Course director, 16 students, 3 credits. Biological Rhythms Journal Club (Fall, 2020) -Co-course director, 6 students, 1-3 credits.
2012-2019	 Washington State University, Pullman, WA. Cellular Neurobiology (2012) -Course Director, 26 students, 33 contact hours. Special Topics in Neuroscience, (2014-present) -Course Director, 21 students, 45 contact hours (2014) -Neuroendocrinology Coordinator, 10 students, 20 contact hours -Biological Rhythms Coordinator, 3 students, 20 contact hours Neurons, Genes, and Behavior, Washington State University (2013-present) -Yearly, single instructor intermediate neuroscience lecture. -Course Director, 20-31 students, 45 contact hours.
	 University of Bergen, Norway Norwegian Summer School in Neuroscience Research: "Circadian Rhythms and Sleep" International Faculty, 24 Ph.D. and medical students, 6d intensive lecture and practicum-based neuroscience summer school (2017).
2008, 10, 11	Columbia University, New York, NY. <i>Mind, Brain and Behavior</i> , Columbia University (2008, 2010, 2011) -Course Director, 120-200 students, 45 contact hours.
2001-present	Guest lectures, on sleep, circadian rhythms, hormones and behavior, and neuroendocrinology in graduate and undergraduate courses, and outreach events (>50 events).

Formal Science and Educational Outreach Activities

Chair of Professional Development and Mentorship, Society for Research on Biological Rhythms

I am responsible for the coordination and execution of all professional development activities of the SRBR, the international scientific society for chronobiology, since 2016. This culminates in the bi-annual SRBR pre-meeting "Trainee and Professional Development Day" where I coordinate the delivery of over 30 distinct workshops run by nearly 60 faculty, attended by over 250 undergraduates, graduate students, postdocs, and junior faculty from around the world.

Collaboration on "Brain" projects with Mobius Science Center, Spokane, WA.

Funded in part by my NSF CAREER award. A collaboration between IPN and the Mobius Science Center in Spokane. I assist Mobius in establishing a focus on the brain with several general public talks each year, during brain awareness week. Undergraduates and Graduate Students in our neuroscience program participate in running interactive exhibits build by Undergrads.

Summer Undergraduate Research Experience (SURE) Program, WSU.

Intensive summer research program for underrepresented minority undergraduates from across the country to foster increased participation in STEM fields. Program includes laboratory research, guided reading, and training in research ethics. Culminates in a summer poster presentation.

Speed Mentoring, Psychoneuroimmunology Research Society Meeting, Berlin, Germany (2019)
Poster Judge, Canadian Society for Chronobiology Meeting, Montreal Canada (2019)
Meet the Professors Lunches, Neurobiology of Stress Workshop, Banff, Canada (2018)
Poster Judge, Society for Behavioral Neuroendocrinology Annual Meeting (2015-16)
Poster Judge, Society for Research on Biological Rhythms Meeting, Big Sky, MT (2014)
Poster Judge, WSU Showcase for Undergraduate Research and Creative Activities (2013-2015)

Student Mentorship Committees (Reverse Chronological)

Current Postdoctoral and Graduate Research Mentorship/Training

Postdoctoral Mentor, Dr. Brandon Roberts, UMass (May 2020 - present).

PhD Primary Mentor (Chair), Brennan Falcy, UMass NSB (Current, projected spring 2025) PhD Primary Mentor (Chair), Gregory Pearson, UMass NSB (Current, projected spring 2023) PhD Co-Mentor (Peters), Forrest Shaffer, WSU IPN (Current, projected spring 2021)

PhD Thesis Committee Member Azaria Anderson, UMass NSB (Current) PhD Thesis Committee Member Nick Millican, IPN WSU (Current) PhD Thesis Committee Member Halle Weimar, IPN WSU (Current) PhD Thesis Committee Member Hayden Wright, IPN WSU (Current) PhD Thesis Committee Member Jobe Ritchie, IPN WSU (Current)

Past Graduate Research Mentorship/Training

Primary Mentor/Committee Chair

PhD Primary Mentor (Chair), Naomi Wallace, IPN WSU (Successful Defense August, 2020) PhD Primary Mentor (Chair), Scott Kinlein, IPN WSU (Successful Defense December, 2018) PhD Primary Mentor (Chair), Derrick Phillips, IPN WSU (Successful Defense April, 2017)

Committee Memberships

PhD Thesis Committee Member Jessica Higginbotham, IPN WSU (Awarded 2019)
PhD Thesis Committee Member Hiroko Shina, IPN WSU (Awarded 2018)
MS Thesis Committee Member, Lydia Baxter-Potter, IPN WSU (Awarded 2017)
MS Thesis Committee Member, Tamasen Hayward, SBS WSU Vancouver (Awarded 2017)
PhD Thesis Committee Member, Elena Skornyakov, IPN WSU Spokane (Awarded 2017)
PhD Thesis Committee Member, Brieann Satterfield, IPN WSU Spokane (Awarded 2017)
PhD Thesis Committee Member, Stephen Page, IPN WSU (Awarded 2017)
PhD Thesis Committee Member, Kimberly Honn, IPN WSU Spokane (Awarded 2015)
MS Thesis Committee Member, Anthony Berger, Psychology WSU (Awarded 2014)

Rotation Students (who joined other groups) Juliana Brutman, WSU STARS student (2018) Rachel Gewiss, School of Molecular Bioscience, iPBS (2017) Brieann Satterfied, IPN (2014)

International Graduate Student Mentorship

PhD Examination Committee Member, Simone Ota, Univ. of Groningen/Univ.Sao Paolo (2019) External Dissertation Examiner, Sandra Förtsch, University of Ulm, Germany (2019)

Current Undergraduate Honors Thesis Mentorship

No current undergraduates undertaking theses given COVID-19.

Past Undergraduate Honors Thesis Mentorship

Undergraduate Thesis Mentor, Matthew Nelson (2015-2018) Undergraduate Thesis Mentor, Parker Blekkenk (2017-2018; awarded "With Distinction") Undergraduate Thesis Mentor, Jacqui Sams (2016-2017) Undergraduate Thesis Mentor, Scott Blaine (2014-2015; awarded "With Distinction") Undergraduate Thesis Mentor, Jordan Harris (2012-2013; awarded "With Distinction")

Undergraduate Thesis Evaluation Committee Member, Amelia Ball (2018) Undergraduate Thesis Evaluation Committee Member, Katherine Martucci (2014) Undergraduate Thesis Evaluation Committee Member, Elizabeth Graham (2013) Undergraduate Thesis Evaluation Committee Member, Alisha McBride (2013)

Laboratory/Professional Mentorship

Current Graduate Students (primary mentor only) Gregory Pearson (Primary Mentor), UMass + WSU (2018-present) Forrest Shaffer (Co-Primary Mentor), WSU (2017-present) Brennan Falcy (Primary Mentor), UMass (2020-present) Jiexen (Jennifer) Wang (Rotating student), UMass (2020-present)

Completed Graduate Students (primary mentor only)

Naomi Wallace (Primary Mentor), WSU (2016-2020; Graduated; Science Policy Fellow). Scott Kinlein (Primary Mentor), WSU (2014-2019; Graduated; Medical Communications) Derrick Phillips (Primary Mentor), WSU (2012-2017; Graduated; Postdoc at the University of Maryland).

Current and Previous Undergraduate Students and High School Mentees Undergraduate Thesis Student Mentorship

<u>Ondergraduate Thesis Student Wentorship</u>
Parker Blekkenk (Undergraduate Honors Thesis student, WSU 2017-2018)
Thesis Awarded "With Distinction". Currently applying to medical schools.
Matthew Nelson (Undergraduate Honors Thesis student, WSU, 2015-2018)
Currently enrolled as a dental student.
Jacqui Sams (Undergraduate Honors Thesis student, WSU, 2016-2017)
Currently working in the private sector.
Scott Blaine (Undergraduate Honors Thesis student, WSU, 2013-2015)
Thesis Awarded <u>"With Distinction"</u> . Currently enrolled as a medical student.

Jordan Harris (Undergraduate Honors Thesis student, WSU, 2012-2013) Thesis Awarded <u>"With Distinction"</u>. Currently enrolled in a DVM program.

Laboratory Mentorship

Nicholas Beaulieu (UMass Lee SIP), 2020.

Andy He (Highschool Research Assistant), 2018-2019.

Felicity Pollard (Summer Undergraduate Research Assistant), Wellesley College, 2018.

Jason Lee (Undergraduate Research Assistant/Senior Project mentor), WSU, 2017-2018

Franchesca Ortega (SURE* Mentor), University of New Mexico, 2017

Phoebe Kaiser (Highschool Research Assistant), 2015-2018.

Keila Velazquez-Arcelay (SURE* Mentor), Universidad Del Este, Puerto Rico, 2016

Emma Evans (Undergraduate Research Assistant), WSU, 2014-2017

Chandler Keller (Undergraduate Research Assistant), 2015-2016

Laura Abbot (Undergraduate Research Assistant), WSU, 2012-2015

James Larson (Undergraduate Research Assistant), WSU, 2012-2014

*SURE = Summer Undergraduate Research Experience for underrepresented minorities

Previous Professional Students (MD, DVM)

Amy Cassano, DVM (Memorial Sloan Kettering Cancer Center; DVM Rockefeller, 2010) Hana Sundelin (Linkoping University Medical School; Rockefeller visiting student; 2011) Sandra Appadu (Linkoping University Medical School; Rockefeller visiting student; 2011) Elin Zingmark (Linkoping University Medical School; Rockefeller visiting student; 2010) Sara Reneberg (Linkoping University Medical School; Rockefeller visiting student; 2010) Carl Bellander (Linkoping University Medical School; Rockefeller visiting student; 2009) Alexander Larrsson (Linkoping University Medical School; Rockefeller visiting student; 2009)

Research and Scholarship

Chaired Conference Symposia (Includes upcoming)

- 1. Chair, "Hypothalamic-Pituitary-Adrenal Axis", Neurobiology of Stress Workshop, Columbia, SC. (May, 2020; postponed to 2021)
- 2. 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".
- 3. Chair, "Counting sheep and calories: Sleep, Time and Obesity", Obesity Society "Obesity Week" Annual Conference, Los Angeles, CA. (November, 2015).
- 4. 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.
- Chair, "Human Clocks", Session at Society for Research on Biological Rhythms (SRBR) Biannual Conference, Big Sky, MT. June, 2014
- 6. Chair and Organizer, "Food for Thought: The brain as both regulator, and target, of obesity", Minisymposium, Society for Neuroscience (SfN) Annual Meeting, San Diego, CA. November, 2013.
- Chair and Organizer, "Broken clocks, inflammatory overload, and social pressures: Modeling stressors of the modern world and their effects on brain and behavior", International Behavioural Neuroscience Society (IBNS) Annual Conference, Malahide, Ireland. June, 2013.

Invited Talks and Symposia

- 1. "Biological Timing and Brain Circuits: Circadian influences on Prefrontal Cortex function", National Science Foundation CAREER Awardee Conference, Alexandria, VA, November, 2020. (*Moved to Virtual*)
- 2. "Physiological and Neurobehavioral Costs of Disrupted Body Clocks", Columbia University, Department of Psychology Colloquium Series, New York City, NY, September, 2020. (*Moved to Virtual*)
- 3. "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*)
- 4. "Environmental modulation of brain metabolic processes: consequences for behavior", International Behavioral Neuroscience Society Conference, Cairns, Australia, June, 2019.
- 5. "Disrupted circadian rhythms and glucocorticoids: from brain to periphery", Pan-American Physiological Society "Physiology without borders" conference, Havana, Cuba, May, 2019.

- 6. "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.
- "Significance of Circadian Clocks in Health and Disease: From Metabolism to Immune Function", Roswell Park Comprehensive Cancer Center Seminar Series, Buffalo, NY. January, 2019.
- 8. "Circadian rhythms and Immune Function", National Institute of Allergy and Infectious Diseases, Bethesda, MD. August, 2018.
- "Neurobehavioral and Physiological Consequences of Failing to Adapt to Environmental Challenge", Institute of Psychosomatic Medicine, University of Ulm, Ulm, Germany. July, 2018.
- 10. "The metabolic costs of allostatic load", Neurobiology of Stress Workshop, Banff, Alberta, Canada. June, 2018.
- 11. "Failure to adapt: The neurobehavioral and physiological consequences of disrupted homeostatic systems", Neuroscience Program Colloquium Series, University of Colorado, Boulder. Boulder, CO. January, 2018.
- "Consequences of disrupted homeostatic systems for brain, behavior, and physiology." "Stress Conference: Past, Present, Future", Princeton University, Princeton, NJ. June, 2017.
- 13. "Neurobehavioural consequences of disrupted stress and circadian systems." Seminar Series, Department of Psychology, University of Guelph, Guelph, Canada. May, 2017.
- 14. "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.
- 15. "Circadian Clocks and Disease: Some Opportunities for Dialogue between Math and Biology." American Mathematical Society Meeting, Washington State University, Pullman, WA. April, 2017.
- 16. "Failure to adapt: Neurobehavioral and Metabolic Consequences of Disrupted Homeostatic Systems." Department of Biomedical Sciences Seminar Series, University of Guelph, Guelph, Canada. April, 2017
- 17. "Failure to adapt: Neurobehavioral and Metabolic Consequences of Disrupted Circadian Timing." Adaptive Life Symposium, Groningen Institute of Evolutionary Life Sciences, Groningen, Netherlands. March, 2017
- "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.

- "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.
- 20. "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.
- 21. "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.
- 22. "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.
- 23. "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.
- 24. "Mental and physical health consequences of disrupted circadian timing." Behavioral Neuroscience Seminar Series, Department of Psychology, University of California, Berkeley, Berkeley, CA, March 2016.
- 25. "Mental and physical health consequences of disrupted circadian timing." Grand Rounds, Department of Psychiatry, University of Alabama, Birmingham, AL, November 2015.
- 26. "Broken clocks and health: Metabolic, Immune, and Sleep effects of disrupted circadian timing". Department of Physiology Seminar Series, Emory University, Atlanta, GA, October 2015.
- "Circadian misalignment and physiological adaptation". Invited Symposium Speaker, "New Findings on the Biology of Shiftwork", College of Medical Sciences, Spokane, WA, June 2015.
- "Broken clocks and health: Metabolic, Immune, and Sleep effects of disrupted circadian timing". Hotchkiss Brain Institute Friday Lecture Series, University of Calgary, Canada, February 2015.
- 29. "Circadian disruption as a modulator of resilience to stressors", Invited Symposium Speaker, International Union of Pharmacology (IUPHAR) meeting, Cape Town, South Africa, July 2014.
- 30. "Circadian disruption as a modulator of resilience to stressors", Invited Symposium Speaker, "The Many Faces of Stress", Federation of European Neuroscience Societies (FENS), Milan, Italy, July 2014.
- 31. "Circadian rhythms, sleep, and health", Invited Seminar, Department of Molecular and Cellular Biology, University of Cape Town. South Africa, July 2014.

- 32. "Disruption of circadian rhythms, the metabolic syndrome, and obesity." Minisymposium Speaker, "Food for Thought", Society for Neuroscience, San Diego, CA, Nov. 2013.
- 33. "Clocks interrupted: Effects of sleep and circadian disruption on neural plasticity and behavior", Symposium Speaker, "Broken clocks, inflammatory overload, and social pressures: Modeling stressors of the modern world and their effects on brain and behavior", International Behavioural Neuroscience Society (IBNS), Malahide, Ireland, June 2013.
- 34. "Circadian Disruption as a Modulator of Resilience to Stressors", Invited Seminar Speaker, Oregon Health and Sciences University, Portland, OR, March 2013.
- 35. "The Neurobiology and Physiology of Stress", Invited Seminar Speaker, Washington State University, Vancouver, WA, March 2013.
- 36. "Circadian Rhythms, Hormones, and the Brain Clock", Invited Seminar Speaker, School of Molecular Biosciences, Washington State University, Pullman, WA, January 2013.
- "Circadian disruption as a modulator of resilience to stressors", Invited Symposium Speaker, International Society for Psychoneuroendocrinology, Berlin, Germany, August 2011.
- 38. "Disrupted Circadian Clocks: Consequences for Brain, Behavior and Physiology", Invited Seminar Speaker, Cajal Club, Mount Sinai Medical School, New York, NY, March 2011.
- 39. Disrupted Brain and Body Clocks: Consequences for Mental and Physical Health", Invited Seminar Speaker, Biology Department, University of Toronto Mississauga, Toronto, ON, Canada, January 2011.
- 40. "Circadian Disruption as a Stressor: Effects on Prefrontal Cortex and Relevance to Cognition and Mental Health", Invited Symposium Speaker, "The Stressed Synapse", American College of Neuropsychopharmacology (ACNP) meeting, Miami Beach, FL, December, 2010.
- 41. "Disrupted Brain and Body Clocks and the Consequences for Behavior and Physiology", Invited Seminar Speaker, Neuroscience seminar, Department of Comparative Anatomy, Physiology and Pharmacology, Washington State University, Pullman, WA, Nov., 2010.
- 42. "Disruption of corticosterone and circadian rhythms results in alterations in metabolic function and response to high-fat diets", Invited Symposium Speaker, "Metabolic Syndrome and Stress", Neurobiology of Stress Conference, Boulder, CO, June, 2010.
- 43. "Stress and the Clocks that Time Us", Invited Seminar Speaker, University of Toronto Scarborough, Department of Psychology and Centre for the Neurobiology of Stress, Toronto, Canada, February, 2010.
- 44. "Effects of circadian dysregulation on metabolism, cognition, and emotionality", NIH Sleep Disorders Research "Data Blitz" at the Society for Neuroscience Meeting, Chicago, IL, October, 2009.

- 45. "Circuit Properties and Endocrine Influences on the Circadian Brain Clock", Invited Symposium Speaker, Ibero-American Physiological Sciences Conference, Buenos Aires, Argentina, November, 2006.
- 46. "Neural-Endocrine Interactions in the Circadian Timekeeping System". Young Investigator Award Symposium, Society for Behavioral Neuroendocrinology, Pittsburgh, PA, June, 2006.
- 47. "Neural-Endocrine Interactions in the Circadian Timekeeping System", Behavioral Neurosciences Seminar Series, Columbia University, New York, NY, March, 2006.
- 48. "The Circadian Timing System in Mammals: From Peptides to Steroids", Invited Seminar Speaker, Laboratory of Neuroendocrinology, The Rockefeller University, New York, NY, June, 2005.
- 49. "Potential Role of Gastrin-releasing Peptide Signaling in Suprachiasmatic Nucleus Functioning", Behavioral Neurosciences Seminar Series, Columbia University, New York, NY, April, 2005.

Academic Schools/Workshops:

- 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:

<u>Current</u>

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

<u>Pending</u>

Co-PI: "Mechanisms of circadian regulation of vagal afferent neurotransmission" National Institute of Diabetes and Digestive and Kidney Diseases. \$1,329,153.00 total costs, 2021-2026. (Multi-PI grant with Peters, WSU; total indicates Karatsoreos portion only). **Scored 30th percentile; resubmission March 2021.

Sub-contractor: "Circadian Disruption and Susceptibility to Target Organ Damage", National Institutes of Health, \$99,590 (total costs), 2019-2024. Effort 10%. PI: Karen Gamble, University of Alabama Medical Center, Birmingham **Scored 20th percentile: resubmission in January 2021)

**Scored 20th percentile; resubmission in January 2021).

Completed

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%

PI: "Effects of disrupted circadian clocks on brain corticotrophin releasing hormone systems and the rewarding properties of alcohol" ADARP, Pilot Grant, \$30,000 total costs. 2015-16. Effort: 10% (no salary line)

PI: "Effects of circadian disruption on prefrontal cortex function" WSU CVM Intramural Grant. \$20,000 total costs. 2015-2016. Effort: 10% (no salary line) PI: "Exploring Circadian Modulation of Affect" Brain Research Foundation NARSAD Young Investigator Grant. \$60,000 total costs. 2014-2016. Effort: 10%

Co-I: "Chronic methamphetamine disrupts sleep-dependent molecular/energetic homeostasis" 1R21DA03770801 (PI: Jonathan Wisor) National Institute of Drug Abuse. \$396,958 total costs. 2014-2016. Effort: 10% Co-I: "Uncoupling Sleep Deprivation-Associated Stressors From Sleep Loss In Rodents"

1R21NS085605-01A1 (PI: Christopher Davis) National Institute of Neurological Diseases and Stroke, \$219,984 total costs. 2015-2016. Effort: 5%

Co-I (Subcontract): "Stress, Adrenal Steroids, and the Brain" 5R01MH04125625 (PI: Bruce McEwen) National Institute of Mental Health. \$2,120,000 total costs. 3/1/2012 – 2/28/2016 Effort: 15%

PI: "Role of the glucocorticoid receptor in Cushing's Syndrome" College of Veterinary Medicine Intramural Grant. \$20,000 total costs. 2013-2014. Effort: 10%

PI: "Exploring the interaction of circadian rhythms and immune function" College of Veterinary Medicine Intramural Grant. \$20,000 total costs. 2014-2015. Effort: 10% (no salary line)

Co-PI: "Effects of Eszopiclone on the Putative, Metabolic, Neurophysiological, Behavioral Consequences of a Novel Mouse Model of Shift-Work" Sepracor, Inc. \$240,000.00, total costs. 2008-2010.

Co-PI: "Disrupted Circadian Clocks, Stress and Depression" Hope for Depression Research Foundation. \$90,000.00, total costs. 2009-2011.

PI: "Circadian desynchrony in the etiology of stress-like changes in physiology and behaviour" Canadian Institutes of Health Research, Postdoctoral Fellowship. \$135,000, total costs. 2007-2010. (Postdoctoral Fellowship, The Rockefeller University). **Postdoctoral Fellowship.

PI: "Analysis of the cellular organization of the mouse suprachiasmatic nucleus: structure, function and behavioural relevance". Natural Sciences and Engineering Research Council of Canada, Predoctoral Fellowship, \$100,000, total costs. 2002-2006. (Predoctoral Fellowship, Columbia University). **Graduate Fellowship.

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

- 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 <u>**=Joint Senior author.</u>
- 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.
- 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 day-linked 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).
- 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).
- 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.*, 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)
- 35) Hill, M.N., McLaughlin, R.J., Pan, B., Fitzgerald, M, Roberts, C.J., Lee, T., Karatsoreos, I.N., Mackie, K., Viau, V., Pickel, V., McEwen, B.S., Liu, Q., Gorzalka, B., and Hillard, C.J. (2011) "Recruitment of prefrontal cortical endocannabinoid signalling by glucocorticoids contributes to termination of the stress response." *J.Neuroscience* 31: 10506-10515. PMID: 21775596. (Cited: 161; Journal IF: 6.7) ***Featured in Faculty of 1000.*
- 36) Karatsoreos, I.N., Butler, M.P., LeSauter, J., Silver, R. (2011) "Androgens modulate structure and function of the suprachiasmatic nucleus brain clock." *Endocrinology* 152: 1970-1978. PMID: 21363939. (Cited: 36; Journal IF: 4.6)
- 37) Karatsoreos, I.N., Bhagat, S.M.*, Bloss, E.B., Morrison, J.H., McEwen, B.S. (2011)
 "Disruption of circadian clocks has ramifications for metabolism, brain and behavior." *Proceedings of the National Academy of Science*; 108(4):1657-62. PMID: 21220317.
 (Cited: 229; Journal IF: 9.8)

* Top 1% Highly Cited papers in Neuroscience and Behavior 2012.

**Featured in Faculty of 1000.

- 38) Yuen, E.Y., Liu W., Karatsoreos, I.N., Ren, Y., Feng, J., McEwen, B.S., Yan, Z. (2011) "Mechanisms for Acute Stress-Induced Enhancement of Glutamatergic Transmission and Working Memory." *Molecular Psychiatry*, Feb;16(2):156-70. PMID: 20458323. (Cited: 160; Journal IF: 15.1)
- 39) Hill, M.N., Karatsoreos, I.N., Hillard, C.J., McEwen, B.S. (2010) "Rapid elevations in limbic endocannabinoid content by glucocorticoid hormones in vivo." *Psychoneuroendocrinology*. 35(9):1333-8. PMID: 20399021. (Cited: 83; Journal IF: 5.5)
- 40) Karatsoreos, I.N., Bhagat, S.*, Bowles, N.P.*, Weil, Z.M., Pfaff, D.W., McEwen, B.S. (2010) "Endocrine and physiological changes in response to chronic corticosterone: A potential model of the metabolic syndrome in mouse". *Endocrinology*. 151: 2117-2127. PMID: 20211972. (Cited: 130; Journal IF: 4.6)
 **Featured in Faculty of 1000.
- 41) Yuen, E.L., Wenhua, L., Karatsoreos, I.N., Feng, J., McEwen, B.S., Yan Z. (2009)
 "Acute Stress Enhances Glutamatergic Transmission in Prefrontal Cortex and Facilitates Working Memory." *Proceedings of the National Academy of Sciences*. Aug 18; 106 (33); 14075-79. PMID: 19666502. (Cited: 215; Journal IF: 9.8)
- 42) Iwahana E., Karatsoreos, I.N., Shibata, S., Silver, R. (2008) "Gonadectomy reveals sex differences in circadian rhythms and suprachiasmatic nucleus androgen receptors in mice." *Hormones and Behavior*. 53 (3):422-430. PMID: 18164002. (Cited: 58; Journal IF: 4.5)
- 43) Romeo, R.D., Ali, F. S., Karatsoreos, I. N., Bellani, R., Chhua, N., Vernov, M. and McEwen, B. S. (2008). "Glucocorticoid receptor mRNA expression in the hippocampal formation of male rats before and after pubertal development in response to acute or repeated stress." *Neuroendocrinology*. 87 (3): 160-7. PMID: 17923777 (Cited: 33; Journal IF: 4.9)
- 44) Karatsoreos, I.N. and Silver, R. (2007) "The neuroendocrinology of the suprachiasmatic nucleus as a conductor of circadian time in mammals" *Endocrinology*. Dec; 148 (12):5640-7 PMID: 17901227. (Cited: 49; Journal IF: 4.6)
- 45) Karatsoreos I.N., Wang, A.*, Sasanian, J.*, Silver, R. (2007). "A Role for Androgens in Regulating Circadian Behavior and the Suprachiasmatic Nucleus." *Endocrinology*, 148(11):5487-95. PMID: 17702841. (Cited: 65; Journal IF: 4.6)
- 46) Romeo, R.D., Karatsoreos I.N., Jasnow, A.M., McEwen BS (2007) "Age- and Stress-Induced Changes in Corticotropin-Releasing Hormone mRNA Expression in the Paraventricular Nucleus of the Hypothalamus." *Neuroendocrinology*. 85 (4):199-206.

PMID: 17505125. (Cited: 39; Journal IF: 4.9)

- 47) Romeo, R.D., Karatsoreos, I.N., Ali, F.S., McEwen, B.S. (2007) "The effects of acute stress and pubertal development on metabolic hormones." *Stress*, 10(1):101-6. PMID: 17454971. (Cited: 15; Journal IF: 3.5)
- 48) Romeo, R.D., Karatsoreos, I.N., McEwen, B.S. (2006) "Pubertal maturation and time of day differentially affect behavioral and neuroendocrine responses following an acute stress." *Hormones and Behavior*, 50 (3): 463-468. PMID: 16836997. (Cited: 76; Journal IF: 4.5)
- 49) Karatsoreos, I.N., Romeo, R.D., McEwen, B.S., Silver, R. (2006) "Diurnal Regulation of the Gastrin-releasing Peptide Receptor in Mouse Suprachiasmatic Nucleus" *European Journal of Neuroscience*, 23(4):1047–1053. PMID: 16519669. (Cited: 38; Journal IF: 3.5)
- 50) Romeo, R.D., Bellani, R., Karatsoreos, I.N., Chhua, N., Vernov, M., Conrad, C.D., McEwen, B.S., (2006) "Stress History and Pubertal Development Interact to Shape Hypothalamic-Pituitary-Adrenal (HPA) Axis Plasticity". *Endocrinology*, 147: 1664-1674. PMID: 16410296. (Cited: 182; Journal IF: 4.6)
 **Featured in Faculty of 1000.
- 51) Romeo, R.D., Staub, D., Jasnow, A.M., Karatsoreos, I.N., Thornton, J.E., McEwen, B.S. (2005) "Dihydrotestosterone increases hippocampal N-methyl-D-aspartate binding but does not affect choline acetyltransferase cell number in the forebrain or choline transporter levels in the CA1 region of adult male rats." *Endocrinology*, Apr;146(4):2091-7. PMID: 15661864. (Cited: 32; Journal IF: 4.6)
- 52) Karatsoreos, I.N., Yan, L., LeSauter, J., Silver, R. (2004) "Phenotype Matters: Identification of Light Response Cells in Mouse SCN". *Journal of Neuroscience*, 24 (1): 68-75. PMID: 14715939. (Cited: 98; Journal IF: 6.7)
- 53) Cain, S.W., Verwey, M., Hood, S., Leknickas, P., Karatsoreos, I.N., Yeomans, J.S., Ralph, M.R. (2004) "Reward and Aversive Stimuli Produce Similar Non-photic Phase Shifts." *Behav. Neuroscience*, 118 (1): 131-7 PMID: 14979789. (Cited: 19; Journal IF: 3.2)
- 54) Cain, S.W., Karatsoreos, I.N., Gautam, N., Konar, Y., Funk, D., McDonald, R.J., Ralph, M.R. (2004) "Blunted Cortisol Rhythm is Associated with Learning Impairment in Aged Syrian Hamsters". *Physiology and Behavior.*, 82(2-3):339-44. PMID: 15276797. (Cited: 18; Journal IF: 3.0)

Invited Contributions/Book Chapters

- 55) **Karatsoreos, I.N.** (2020) "Circadian Regulation of the Brain and Behavior: A Neuroendocrine Perspective"; In: "Current Topics in Behavioral Neuroscience". Coolen and Grattan (Eds.) Springer Nature.
- 56) McEwen, B.S. and **Karatsoreos, I.N.** (2019) "What is Stress?" in *Stress Challenges and Immunity in Space*, Chouker, A. (Ed.), Springer Inc. **Revised from 2016 volume*.
- 57) **Karatsoreos, I.N.** and Peters, J.H. (2016) "Obesity Peripheral Signals: Neural and Peptidergic"; In: "Neuroscience in the 21st Century". Pfaff and Volkow (Eds.) Springer Nature.
- 58) **Karatsoreos, I.N.** and Silver, R. (2016) "Body Clocks in Health and Disease"; In: "Conn's Translational Neuroscience". Ed. P. Michael Conn. Elsevier Inc.
- 59) Arble, D.M., Bass, J., Behn, C.D., Butler, M.P., Challet, E., Czeisler, C., Depner, C.M., Elmquist, J., Franken, P., Grandner, M.A., Hanlon, E.C., Keene, A.C., Joyner, M.J., Karatsoreos, I.N., Kern, P.A., Klein, S., Morris, C.J., Pack, A.I., Panda, S., Ptacek, L.J., Punjabi, N.M., Sassone-Corsi, P., Scheer, F.A., Saxena, R., Seaquest, E.R., Thimgan, M.S., Van Cauter, E., Wright, K.P. (2015) "Impact of Sleep and Circadian Disruption on Energy Balance and Diabetes: A Summary of Workshop Discussions." *Sleep*. Dec 1;38(12):1849-60. PMID: 26564131 (Cited: 20, Journal IF: 5.1)
- 60) McEwen, B.S. and Karatsoreos, I.N., (2015) "Sleep Deprivation and Circadian Disruption: Stress, Allostasis, and Allostatic Load." *Sleep Medicine Clinics*. March; 10(1):1-10. PMID: 26055668. (Cited: 30)
- 61) Karatsoreos, I.N. and McEwen, B.S. (2013) "Resilience and Vulnerability: A Neurobiological Perspective." *Faculty of 1000 Reports*, 5(13):5-13. (Cited: 13)
- 62) **Karatsoreos, I.N.** and McEwen, B.S. (2011) "Stress and Brain Function" in *Handbook of Neuroendocrinology*, Fink, G., Pfaff, D.W., Levine, J. (Eds.), Academic Press, Inc.
- 63) McEwen, B.S. and Karatsoreos, I.N. (2011) "What is Stress?" in *Stress Challenges and Immunity in Space*, Chouker, A. (Ed.), Springer Inc.
- 64) Romeo, R.D. and **Karatsoreos, I.N.** (2011) "Adolescence and Stress: From HPA function to Brain Development" in *The Handbook of Stress: Neuropsychological Effects on the Brain,* Conrad, C.D. (Ed.), Wiley-Blackwell Inc.
- 65) **Karatsoreos, I.N.** and McEwen, B.S. (2010) "Stress and Allostasis", in *The Handbook of Behavioral Medicine*, Steptoe, A. (Ed.), Springer Inc. (**Cited: 2**)
- 66) **Karatsoreos, I.N.** and McEwen, B.S. (2009) "Depression: what is the role of physiological dysregulation and circadian disruption?" in *Neuropsychoanalysis* 11 (1).

- 67) Karatsoreos, I.N., Pfaff, D.W., McEwen, B.S. (2008) "Androgens in Brain Tissue: Cellular Localization, Interactions with Neurotransmitter Systems, and Consequences for Circadian Behavior and Generalized Arousal" in *Current Topics in Steroid Research* 5(1):77-89.
- 68) Yan, L., Karatsoreos, I., Lesauter J., Welsh D.K., Kay, S., Foley, D., Silver R. (2008) "Exploring Spatiotemporal Organization of SCN Circuits." *Cold Spring Harbor Symposium on Quantitative Biology*. Jan 1; 72:527-541. (Cited: 42)
- 69) **Karatsoreos, I.N.**, Vernov, M., and Romeo, R.D. (2006) "Testosterone and the Brain: Implications for Cognition, Biological Rhythms and Aging" in *New Research in Testosterone*.
- 70) Karatsoreos, I.N. and Silver, R (2004) "Chronobiology: biological timekeeping" *Physiology and Behavior* 82(5):927-929. (Cited: 5; Journal IF: 3.0)

Submitted Manuscripts

*=Mentored Graduate Student; **=Mentored Undergraduate Student.

Phillips, D.J.*, Blaine, S.**, Wallace, N.K.*, **Karatsoreos, I.N.** "The Impact of Brain Derived Neurotrophic Factor Val66Met Polymorphism on the Effects of Circadian Disruption on Sleep." *In Revision, Sleep.*

Wallace, N.K.*, Pollard, F.**, Savenkova, M., **Karatsoreos, I.N.** "Daily rhythms in lactate metabolism in the medial prefrontal cortex of mouse: Effects of light and aging". *In Revision, Neurobiology of Aging.*

Kinlein, S.A.*, Wallace, N.K.*, Blekkenk, P.**, Savenkova, M.S., Oles, V., Panchenko, A., **Karatsoreos, I.N.**

"Chronic corticosterone treatment alters central and peripheral adaptation to repeated stress exposure in mice." *Submitted to Endocrinology*.

Shahanoor, Z., Sultana, R., Savenkova, M.S., **Karatsoreos, I.N.,** Romeo, R.D. "Metabolic Dysfunctions following Chronic Oral Corticosterone are modified by both Pubertal Development and Sex in Mice." *Submitted to Endocrinology*

Press/News Coverage

Science Signaling "Editor's Choice", 2016

"A bad time of day to get an infection" Science Signaling 2016 http://stke.sciencemag.org/content/9/429/ec120 Associated with PNAS paper "Nuclear receptor REV-ERBα mediates circadian sensitivity to mortality in murine vesicular stomatitis virus-induced encephalitis."

Science News, 2015

"Shifted waking hours may pave the way to shifting metabolism" https://www.sciencenews.org/blog/scicurious/shifted-waking-hours-may-pave-way-shifting-metabolism

Science Signaling "Editor's Choice", 2015

"Endocannabinoids in glucocorticoid-induced metabolic syndrome" Science Signaling 2015 8:360 ec50. Associated with PNAS paper "A peripheral endocannabinoid mechanisms contributes to glucocorticoid-mediated metabolic syndrome."

Brain Research Foundation "The Quarterly", Summer 2014

"How Estrogen Protects Females against Detrimental Stress", associated with *Molecular Psychiatry* paper "Estrogen protects against the detrimental effects of repeated stress on glutamatergic transmission and cognition".

Mammoth Magazine, Interview; Issue 13. Summer 2013.

"From Stressed Neurons to Resilient Neighbourhoods"

Endocrinology "News and Views", 2011

"Time for Testosterone: The Suprachiasmatic Nucleus Gets Sexy." *Endocrinology* 2011 152: 1727-1730. Associated with *Endocrinology* paper "Androgen regulation of plasticity in the suprachiasmatic nucleus brain clock".

Rockefeller University Newswire, 2011

"Round-the-clock lifestyle could disrupt metabolism, brain and behavior"

Science Magazine "Editor's Choice", 2011

"Working against the clock". Science, 2011, **331**, 6016.

Associated with *Proceedings of the National Academy of Science* paper "Disruption of circadian clocks has ramifications for metabolism, brain and behavior."

Endocrine Reviews, "Translational Highlights", 2010.

Associated with *Endocrinology* paper "Endocrine and physiological changes in response to chronic corticosterone: A potential model of the metabolic syndrome in mouse". Endocr. Rev., 2010; **31**, 261.

Endocrine News, 2010 "Metabolic syndrome symptoms from chronic corticosterone", associated with *Endocrinology* paper "Endocrine and physiological changes in response to chronic corticosterone: A potential model of the metabolic syndrome in mouse". May, 2010.

Journal of the American Medical Association, Medical News and Perspectives, 2010 "Scientists probe brain's role in obesity" 2010, 303(1):19.

NeuroScene.com Podcast, "Innovators in Neuroscience", 2010 "Broken Body Clocks: The Consequences of Disrupting our Circadian Rhythms"

Rockefeller University Newswire, 2009 "Disrupting sleep causes problems for the body and brain"

Time Magazine Wellness Blog, 2009 "Sleep: New Research on Memory, Fat, Golf"

Press Conference, Society for Neuroscience Annual Meeting, Chicago, IL. 2009.

"Effects of circadian dysregulation on metabolism, cognition, and emotionality", in the "Think What you Eat" news conference.

Rockefeller University Newswire, 2009

"Acute stress improves working memory, research suggests"

Prevention Magazine, 2008.

"Let Your Brain Reign: Figure out your naturally sharpest moments, and do everything a little easier, better, and smarter."

Conference Presentations:

*Denotes Graduate Student; <u>Underline</u> denotes Undergraduate Student

- 1. *Pearson, G.L., Savenkova, M., <u>Barnwell, J.J.</u>, **Karatsoreos, I.N.** "Circadian desynchronization alters metabolic and immune responses following lipopolysaccharide inoculation in male mice." Federation of European Neuroscience Societies. July 2020.
- *Pearson, G.L., Savenkova, M., <u>Barnwell, J.J.</u>, Karatsoreos, I.N. "Circadian desynchronization slows recovery and alters metabolic and immune responses following immune challenge in male mice." Society for Research on Biological Rhythms. June 2020.
- 3. *Pearson, G.L., Savenkova, M.S., **Karatsoreos I.N.** "Environmental circadian desynchronization prolongs sickness behavior and alters immune responses in mice." Psychoneuroimmunology Research Society, Berlin, Germany. June 2019. ****GLP Poster and Data Blitz, and awarded a Merit Based Travel Award*
- *Kinlein, S.A., *Wallace, N.K., <u>Blekkenk, P.B.</u>, Savenkova, M.S., Karatsoreos, I.N. "Hypothalamic Pituitary Adrenal Axis Dysregulation Alters Central and Peripheral Adaptation to Repeated Stress Exposure in Mice." ENDO2019, The Endocrine Society Annual Meeting, New Orleans, LA. March 2019.
- *Kinlein, S.A., <u>Blekkenk, P.B.</u>, *Wallace, N.K., *Shaffer, F.J., Savenkova, M., Karatsoreos, I.N. "Disruption of the hypothalamic-pituitary-adrenal axis changes stressinduced glutamate signaling in the medial prefrontal cortex: A substrate for altered stress adaptation?". FENS Forum of Neuroscience, Berlin, Germany. July 2018. ***SAK was awarded a Merit Based Travel award
- 6. *Shaffer, F.J., Linberg, J.E.M., **Karatsoreos, I.N.,** Peters, J.H. "Corticosterone rapidly inhibits vagal afferent to NTS signaling via cannabinoid subtype 1 receptors." Society for the Study of Ingestive Behavior, Bonita Springs, FL. July 2018.
- *Kinlein S.A., <u>Blekkenk, P.B.</u>, Savenkova, M., Karatsoreos, I.N. "Hypothalamicpituitary-adrenal axis disruption alters hippocampal and prefrontal cortical adaptation to repeated stress exposure". Stress Neurobiology Workshop, Banff, Alberta, Canada. June 2018.
- *Wallace, N.K., *Phillips, D.J., <u>Lee, J.</u>, Savenkova, M.S., **Karatsoreos, I.N.** "Circadian Variation of Neurometabolic Activity in the Prefrontal cortex: Impacts of Aging and Circadian Disruption". Society for Research on Biological Rhythms, Amelia Island, FL. June 2018.
 ***NKW was awarded a Merit Based TYDE Fellowship for this work.
- *Shaffer, F.J., Peters, J.H., Karatsoreos, I.N. "Corticosterone as a potential synchronizer of diurnal rhythms in a brainstem feeding circuit." Society for Research on Biological Rhythms, Amelia Island, FL. June 2018.
 ***FJS was awarded a Merit Based Travel Award for this work.

- *Kinlein S.A., *Shaffer F.J., *Wallace N.K., <u>Blekkenk, P.B.</u>, Savenkova M., Karatsoreos I.N. "HPA axis disruption alters glutamate signaling in the prefrontal cortex: consequences for acute stress exposure and stress adaptation." Abstract presented to the Society for Neuroscience, Washington D.C., Nov. 2017.
- 11. *Kinlein S.A., *Shaffer F.J., Savenkova M., Karatsoreos I.N. "HPA axis disruption alters behavior and the prefrontal cortex response to stress: role of glutamate signaling." Abstract presented to the Stress: Past, Present, and Future directions - Symposium at Princeton University, Princeton NJ, USA. June 2017. **SAK was awarded a Merit Based Travel Award for this work.
- *Wallace, N.K., *Phillips, D.J., Karatsoreos, I.N. "Cognitive Dysfunction in Circadian Disruption and Aging." Abstract presented to the Gordon Conference on Chronobiology, Stowe, VT. July, 2017.
 **NKW was awarded a Storm minority travel fellowship from the GRC for this work.
- 13. *Kinlein, S.A, *Phillips, D.J., <u>Keller, C.R.</u>, Karatsoreos, I.N. "Disruption of the hypothalamic-pituitary-adrenal axis in mouse causes a mismatch between neural, behavioral, and hormonal stress responses: Role of the prefrontal cortex." Abstract presented to the Society for Behavioral Neuroendocrinology Annual Meeting, Montreal, Canada. August, 2016. **SAK was awarded a Merit Based Travel Award from SBN for this work.
- 14. *Kinlein S.A., **Karatsoreos I.N.** "Contributions of prefrontal cortex and hippocampal neuronal populations to altered behavioral responses to acute stress following HPA-axis disruption." Abstract presented to the International Society of Psychoneuroendocrinology Annual Meeting, Edinburgh, UK. Sept. 2015.
- 15. *Phillips, D.J., *Kinlein, S.A., Savenkova, M., **Karatsoreos, I.N.** "Circadian rhythms as modulators of resilience." Abstract presented to the Gordon Conference on Chronobiology, Girona, Spain. July. 2015.
- 16. *Phillips, D.J., Karatsoreos, I.N. "The Effects of Circadian Disruption on Sleep." Abstract presented to the Associated Professional Sleep Societies Meeting; Seattle, WA. June, 2015.
 **DJP was awarded a Merit Based Travel Award from APSS for this work.
- 17. Gagnidze, K., **Karatsoreos**, **I.N**., D'Agostino, P., Masheeb, Z., Bulloch, K. "Circadian time of infection affects the progression and outcome of vesicular stomatitis virus-induced encephalitis." Abstract presented to the Society for Neuroscience Annual Meeting, Washington, D.C., 2014
- Kim, A.B., Gray, M., Hermanson, D.J., McLaughlin, R.J., *Wilson, C.D., Vecchiarelli, H.A., McEwen, B.S., Schulkin, J., Karatsoreos, I.N., Patel, S., Hill, M.N.
 "Corticotrophin releasing hormone increases 2-arachidononylglycerol in the medial"

prefrontal cortex." Abstract presented to the Society for Neuroscience Annual Meeting, Washington, D.C., 2014.

- *Wilson, C.D., McEwen, B.S., Karatsoreos, I.N. "Chronic non-invasive disruption of the hypothalamic-pituitary-adrenal stress axis has effects on learning and memory." Abstract presented to the Society for Neuroscience Annual Meeting, New Orleans, LO, 2012.
- 20. *Wilson, C.D., Garrido, P., McEwen, B.S., **Karatsoreos, I.N.** "Disruption of HPA axis by chronic corticosterone treatment alters behavioral and neural responses to acute stress." Abstract presented to Neurobiology of Stress Workshop, Philadelphia, PA, 2012.
- 21. *Wilson, C.D., Garrido, P., McEwen, B.S., **Karatsoreos, I.N.** "Disruption of HPA axis by chronic corticosterone treatment alters behavioral and neural responses to acute stress." Abstract presented to Federation of European Neuroscience Society Bi-annual conference, Barcelona, Spain, 2012.
- 22. *Wilson, C.D., **Karatsoreos, I.N.**, McEwen, B.S. "Aggression and stress in a model of hypothalamic-pituitary-adrenal axis dysfunction." Abstract presented to Society for Neuroscience Annual Conference, Washington, D.C., 2011.
- 23. **Karatsoreos, I.N.,** *Wilson, C.D., Garrido, P., McEwen, B.S. "Stress without corticosterone: the neural response to acute stress in a model of disrupted hypothalamic pituitary adrenal axis function." Abstract presented to Society for Neuroscience Annual Conference, Washington, D.C., 2011.
- 24. **Karatsoreos, I.N.,** *Wilson, C.D., McEwen, B.S. "Disruption of circadian clocks with a 10:10 Light:Dark cycle alters physiological responses to a subset of stressors." Abstract presented to the Gordon Research Conference on Chronobiology, Il Ciocco, Italy, 2011
- 25. Karatsoreos, I.N., *Bowles, N.P., *Wilson, C.D., *Larsson, A., *Bellander, C., McEwen, B.S., "Chronic corticosterone modulates the effects of a high-fat diet on brain and physiology." Abstract presented to Society for Neuroscience Annual Conference, San Diego, CA, 2010.
- 26. *Bowles, N.P., Hill, M.N., *Bhagat, S.M., Li, Z., Karatsoreos, I.N., and McEwen, B.S., "Cannabinoid CB1 receptor signaling is required for glucocorticoid-mediated metabolic syndrome." Abstract presented to Society for Neuroscience Annual Conference, San Diego, CA, 2010.
- 27. **Karatsoreos**, **I.N.**, *Bowles, N.P., *Bellander, C., *Larsson, A., McEwen, B.S., "Chronic corticosterone exposure modulates the effects of a high fat diet." Abstract presented to the Neurobiology of Stress Workshop, Boulder, CO, 2010

- 28. **Karatsoreos, I.N.,** *Bhagat, S.M., McEwen, B.S., "Effects of circadian dysregulation on metabolism, cognition, and emotionality." Abstract presented to Society for Neuroscience Annual Conference, Chicago, IL, 2009.
- 29. *Bhagat, S.M., **Karatsoreos, I.N.,** McEwen, B.S., "Sex differences in the effects of chronic corticosterone on physiology and behavior." Abstract presented to Society for Neuroscience Annual Conference, Chicago, IL, 2009.
- 30. *Bowles, N.P., Karatsoreos, I.N., McEwen, B.S., "Leptin resistance in a mouse model of hypercortisolemia: Implications for the hypothalamic-pituitary adrenal axis and behavior." Abstract presented to the Society for Neuroscience Annual Conference, Chicago, IL, 2009
- 31. Hill, M.N., **Karatsoreos, I.N.,** Hillard, C.J., McEwen, B.S., "Endocannabinoid signaling provides resilience against the anxiogenic effects of chronic stress." Abstract presented to the Society for Neuroscience Annual Conference, Chicago, IL, 2009.
- 32. **Karatsoreos, I.N.**, *Bhagat, S.M., McEwen, B.S., "The effects of chronic corticosterone treatment on obesity, metabolism, brain and behavior in the mouse." Abstract presented to the Society for Neuroscience Annual Conference, Washington D.C., 2008.
- 33. Romeo, R.D., Dziedzic, N., **Karatsoreos, I.N.**, "The pubertal maturation of stressinduced hypothalamic-pituitary-adrenal (HPA) axis reactivity." Abstract presented to the Society for Neuroscience Annual Conference, Washington D.C., 2008.
- 34. **Karatsoreos, I.N.**, <u>Wang, A.</u>, Silver, R. "Androgens restructure circadian behavior and the brain clock." Abstract presented to the Society for Neuroscience Annual Conference, Atlanta, GA, 2006.
- 35. Karatsoreos, I.N., <u>Wang, A., Sasanian</u>, J., Silver., R. "Androgens act on the Circadian Clock to Modulate Daily Rhythmicity". Abstract presented to the Society for Neuroscience Annual Conference, Washington, D.C., 2005.
- 36. Romeo, R.D., Bellani, R., Karatsoreos, I.N., Chhua, N., Vernov, M., Conrad, C.D., McEwen, B.S., "Stress History and Pubertal Development Interact to Shape Hypothalamic-Pituitary-Adrenal (HPA) Axis Plasticity". Abstract presented to the Society for Neuroscience Annual Conference, Washington, D.C., 2005.
- Karatsoreos, I.N., Romeo, R.D., <u>Wang, A.</u>, Silver, R. "Androgen Receptors in the Mouse Circadian System". Abstract presented to the Society for Neuroscience Annual Conference, San Diego, CA, 2004.
- Karatsoreos, I.N., Romeo, R.D., <u>Wang, A.,</u> Silver, R. "Androgen Receptor Expression in Mouse Suprachiasmatic Nucleus" Presentation to the Society for Behavioral Neuroendocrinology Annual Conference, Lisbon, Portugal, 2004.

- 39. **Karatsoreos, I.N.**, Romeo, R.D., McEwen, B.S., Silver, R. "Photic Regulation of the Gastrin-releasing Peptide Receptor in Mouse Suprachiasmatic Nucleus" Presentation to the Society for Research on Biological Rhythms Bi-annual Conference, Whistler, Canada, 2004.
- 40. Kriegsfeld, L., D.F. Mei, J. LeSauter, I.N. Karatsoreos, R. Silver. (2004) Building a Brain Clock: The Functional Organization of the Mammalian Suprachiasmatic Nucleus. Abstract presented to the Society for Research on Biological Rhythms Biannual Conference, Whistler, Canada, 2004.
- 41. **Karatsoreos, I.N.**, Silver, R. "Phase Dependence of FOS and *Period* gene Expression in Hamster Suprachiasmatic Nucleus Following a Phase Shifting Light Pulse." Presented to the Society for Neuroscience Annual Conference, New Orleans, LA, 2003.
- 42. **Karatsoreos, I.N.**, Yan, L., LeSauter, J., Silver, R. "Rhythmic and Non-rhythmic Compartments of Mouse SCN." Presented to the Society for Neuroscience Annual Conference, Orlando, FL, 2002.
- 43. Kriegsfeld, L.J., Bobek, E., Karatsoreos, I.N., Silver, R. "Inhibition of Nitric Oxide Attenuates Light-Induced Phase Advances but Differentially Affects FOS and *mPer1* Expression in Mice." Presented to the Society for Neuroscience Annual Conference, Orlando, FL, 2002.
- 44. **Karatsoreos, I.N.**, Yan, L., LeSauter, J., Silver, R. "Novel Features of Caudal Suprachiasmatic Nucleus in Mouse" Presented to the Society for Research in Biological Rhythms Biannual Conference, Amelia Island, FL, May, 2002.
- 45. Cain, S.W., Edelstein, K., **Karatsoreos, I.N.**, Yeomans, J.S., Ralph, M.R. "Non-photic like Phase Shifts are Induced by Intergeniculate Leaflet Injections of the Cholinergic Agonist Carbachol and are Blocked by Pre-Injections of Atropine." Presented to the Society for Neuroscience Annual Conference, San Deigo, CA, November, 2001.
- 46. Karatsoreos, I.N., Cain, S.W., Ralph, M.R. "The Effect of Constant Light on Calbindin D-28k in the SCN." Presented to the Latin American Chronobiology Symposium, Natal, Brazil, June, 2001.
- 47. Cain, S.W., **Karatsoreos, I.N.**, Ralph, M.R. "Differential effects of Dopamine D2 and D3 Receptor Knockout on the Amphetamine Inducible Oscillator in Mice." Presented to the Latin American Chronobiology Symposium, Natal, Brazil, June, 2001.
- 48. Ko, C.H., Seco, P., Karatsoreos, I.N., Ralph, M.R. "The Role of the Suprachiasmatic Nucleus in Temporal Gating of Performance on a Reward-Based Learning and Memory Task." Abstract and poster presented to the Latin American Chronobiology Symposium, Natal, Brazil, June, 2001.

- 49. Cain, S.W., **Karatsoreos, I.N.**, Funk, D., McDonald, R.J., Ralph, M.R. "Flattened Amplitude of Circadian Corticosterone Rhythms is Associated with Learning Impairment in Aged Syrian Hamsters." Abstract presented to the American Gerontological Society Annual Conference, Washington D.C., November 2000.
- Antoniadis, E.A., King, A., Karatsoreos, I.N., Ralph, M.R., McDonald, R.J. "Circadian Phase-Shifting: Effects on Context Conditioning." Abstract presented to the Society for Neuroscience Annual Conference, New Orleans, LA, November, 2000.
- 51. Bekinschtein, T.A., Marpegan, L., Cain, S.W., Karatsoreos, I.N., Costas, M., Ralph, M.R., Golombek, D.A. "Immune-Circadian Cross Talk: Interaction Between Lipopolysacharide, NFkB and the Hamster Biological Clock." Abstract presented to the Argentinian Neurochemical Society Annual Conference, Buenos Aries, Argentina, November, 2000.