

UNIVERSITY OF PENNSYLVANIA - PERELMAN SCHOOL OF MEDICINE  
Curriculum Vitae

Date: July, 2020

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If you are not a U.S. citizen or holder of a permanent visa, please indicate the type of visa you have:

Permanent Resident

Education:

1992-1999	M.D.	University of Bochum Bochum, Germany
1994-2001	Ph.D.	University of Bochum (Research) Bochum, Germany
2002-2006	M.Sc.	University of Bielefeld (Epidemiology) Bielefeld, Germany

Postgraduate Training and Fellowship Appointments:

1999-2000	Medical Intern German Aerospace Center (DLR) Institute of Aerospace Medicine Flight Physiology Division Cologne, Germany
2004-2006	Visiting Fellow Institute for Technology Assessment (ITA) Massachusetts General Hospital Harvard Medical School Boston, MA
2006-2007	Research Associate Division of Sleep and Chronobiology Department of Psychiatry University of Pennsylvania School of Medicine Philadelphia, PA

Military Service: None

Faculty Appointments:

2008-2009	Adjunct Assistant Professor of Epidemiology in Psychiatry Department of Psychiatry University of Pennsylvania School of Medicine Philadelphia, PA
2010-2015	Assistant Professor of Sleep and Chronobiology in Psychiatry Department of Psychiatry University of Pennsylvania School of Medicine Philadelphia, PA
2015-2020	Associate Professor of Sleep and Chronobiology in Psychiatry Department of Psychiatry University of Pennsylvania School of Medicine Philadelphia, PA
2020-Present	Professor of Psychiatry Department of Psychiatry University of Pennsylvania School of Medicine Philadelphia, PA

Hospital and Administrative Appointments:

1999-2006	MD Scientist German Aerospace Center (DLR) Institute of Aerospace Medicine Flight Physiology Division Cologne, Germany
2008-2009	Department Head Flight Physiology Division German Aerospace Center (DLR) Institute of Aerospace Medicine Cologne, Germany
2009	Leader Research topic "Human Factors and Safety in Aviation" at the German Aerospace Center (DLR) Cologne, Germany
2019-Present	Director, Behavioral Regulation & Health Section Department of Psychiatry, University of Pennsylvania Perelman School of Medicine

Other Appointments:

2010-Present	Member Institute for Translational Medicine and Therapeutics (ITMAT) of the University of Pennsylvania Philadelphia, PA
2012-2017	Member John Morgan Society University of Pennsylvania Philadelphia, PA
2014-2019	Corresponding Member International Academy of Astronautics Paris, France
2019-Present	Member International Academy of Astronautics Paris, France

Specialty Certification: None

Licensure:

2000 Full Medical Licensure (Germany)

Awards, Honors and Membership in Honorary Societies:

1996	Dissertation Stipend of the Faculty of Medicine, University of Bochum, Germany
2007	Science Award, German Aerospace Center (DLR)
2008	Honorable mention, Munich Airport Innovation and Environment Award (MUC Award)
2010	Albrecht-Ludwig-Berblinger Science Award, German Academy for Aviation and Travel Medicine
2012	Best Poster Award, 9 <sup>th</sup> Annual Center for Sleep and Circadian Neurobiology (CSCN) Research Retreat, Perelman School of Medicine at the University of Pennsylvania
2016	Journal Publication Award for the Most Outstanding Space Medicine Article published in the Aerospace Medicine and Human Performance Journal, awarded by the Space Medicine Association
2018	International Space Station (ISS) Innovation Award – Earth Science and Remote Sensing for “Development of Neurocognitive Assessment Battery for Use on the ISS”, awarded by the American Astronautical Society at the International Space Station Research & Development Conference, San Francisco, CA

Memberships in Professional and Scientific Societies and Other Professional Activities:

- International:
- German Sleep Research Society (DGSM), Member, 2000-2018
  - World Health Organization (WHO)
    - Advisor, Exposure-Response Relationships of Noise on Health, 2002
    - Advisor, Evidence Review on Aircraft Noise and Health, 2007
    - Advisor, Community Noise Guidelines, 2014-2018
  - Epi-Loge Club, Germany, Vice President, 2005-2012
  - International Commission on Biological Effects of Noise (ICBEN)
    - Team 5 (Effects of Noise on Sleep) Co-Chair, 2008-2014
    - Secretary, 2008-2014
    - President, 2014-Present
  - German Society of Aviation and Space Medicine (DGLRM), Member, 2010
  - Australian Antarctic Science (AAS) Program of the Australian Antarctic Division (AAD), Grant Reviewer, 2012
  - Medical, Physiological and Psychological Research Using Concordia Antarctic Station as Human Exploration Analogue (AO-11-Concordia), European Space Agency (ESA), Grant Review Panel Member, 2012
  - German Research Foundation (Deutsche Forschungsgemeinschaft, DFG), Grant Reviewer, 2012
  - Australian Government, National Health and Medical Research Council: Evidence on Wind Farms and Human Health, Expert Reviewer, 2014
  - International Civil Aviation Organization (ICAO), Committee on Aviation Environmental Protection (CAEP), Impacts and Science Group (ISG), Member, 2014-Present
  - Opponent, thesis defense of Michael G. Smith, Department of Occupational and Environmental Medicine, Institute of Medicine, University of Gothenburg, Sweden, 2017
  - Biotechnology and Biological Sciences Research Council (BBSRC), United Kingdom, Grant Reviewer, 2017
  - Netherlands Organization for Scientific Research, Earth and Life Sciences Division, Grant Reviewer, 2018
  - Wellcome Trust, United Kingdom, Grant Reviewer, 2018
  - National Institute for Occupational Safety and Health (NIOSH) 2020 Science and Service Awards, Reviewer, 2020
  - National Aeronautics and Space Administration (NASA) and European Space Agency (ESA), ESA/NASA Brain and SANS Expert Team, Member, 2020-Present
- National:
- Sleep Research Society, Member, 2007-Present

American Academy of Sleep Medicine, Member, 2009-2017  
- Sleep Deprivation Steering Committee Member, 2012-2016  
Aerospace Medical Association, Member, 2018-Present  
Partnership for Air Transportation Noise & Emissions Reduction (PARTNER), FAA (Federal Aviation Administration) Center of Excellence, Coordinator for the University of Pennsylvania, 2010-2014  
Aviation Sustainability Center (ASCENT), FAA (Federal Aviation Administration) Center of Excellence, Coordinator for the University of Pennsylvania, 2013-Present  
NIH Basic Behavioral and Social Sciences Research Opportunity Network (OppNet), Review Panel Member, 2011  
International Space Medicine Summit, James A. Baker III Institute for Public Policy, Rice University, Houston, TX  
- Future Analogs Panel Member, 2012  
- Planning for Long-Duration Missions Panel Member, 2013  
- TWINS Study Panel Member, 2016  
Veterans Affairs (VA), Joint Biomedical Laboratory Research and Development and Clinical Science Research and Development Services Scientific Merit Review Board - Review Panel for Neurobiology B (NURB), Member, 2013  
Transportation Research Board of the National Academies, Study of FAA Air Traffic Controller Staffing, Committee Member, 2013-2014  
National Space Biomedical Research Institute (NSBRI), First Award Fellow post-doc program, Reviewer, 2014  
Committee on National Statistics, Board on Human-Systems Integration, Division of Behavioral and Social Sciences and Education and Transportation Research Board, Panel on Research Methodologies and Statistical Approaches to Understanding Driver Fatigue Factors in Motor Carrier Safety and Driver Health, Reviewer, 2015  
30<sup>th</sup> Meeting of the Associated Professional Sleep Societies (APSS), Denver, CO, Session Proposal reviewer, 2015  
National Academies of Sciences, Engineering, and Medicine, Commercial Motor Vehicle Driver Fatigue, Long-term Health, and Highway Safety: Research Needs, Reviewer, 2016  
American Academy of Sleep Medicine and Sleep Research Society Consensus Conference on Shift Length Management, panel member, 2018-Present  
National Aeronautics and Space Administration (NASA) CO<sub>2</sub> Exposure Technical Interchange Meeting, invited subject matter expert, May 11-12, 2020

Local: None

Editorial Positions:

2008-2010	Editorial Board Member, Sleep
2010-2012	Associate Editor, Sleep
2011-2012	Guest Editor, Noise & Health
2012-2016	Deputy Editor, Sleep
2012-2018	Editorial Board Member, Noise & Health
2014-2016	Academic Editor, PLoS ONE
2017-2019	Editorial Board Member, Sleep Health
2017-Present	Editorial Board Member, Frontiers in Physiology
2018-2019	Guest Editor, International Journal of Environmental Research and Public Health
2019-Present	Associate Editor, Sleep Health

Ad Hoc Reviewer (N=93)

Somnologie, 2006-Present  
Sleep, 2007-Present  
European Journal of Applied Physiology, 2009-Present  
Journal of Sleep Research, 2009-Present  
Journal of Clinical Sleep Medicine, 2009-Present  
Noise & Health, 2009-Present  
Psychiatry Research, 2009-Present  
Applied Acoustics, 2010-Present  
Biological Psychology, 2010-Present  
Brain Research, 2010-Present  
Human Factors, 2010-Present  
Industrial Health, 2010-Present  
Journal of General Internal Medicine, 2010-Present  
International Journal of Environmental Research and Public Health, 2010-Present  
Brain and Cognition, 2011-Present  
Environmental Research, 2011-Present  
Journal of Graduate Medical Education, 2011-Present  
Journal of Occupational and Environmental Medicine, 2011-Present  
Journal of Psychopharmacology, 2011-Present

Physiology & Behavior, 2011-Present  
Acta Astronautica, 2012-Present  
BMC Health Services Research, 2012-Present  
Journal of Applied Physiology, 2012-Present  
Journal of Exposure Science and Environmental Epidemiology, 2012-Present  
Neuroscience & Biobehavioral Reviews, 2012-Present  
Progress in Neurobiology, 2012-Present  
PLoS One, 2012-Present  
Noise Control Engineering Journal, 2012-Present  
International Journal of Hygiene and Environmental Health, 2012-Present  
Journal of Environmental and Public Health, 2012-Present  
Healthy Aging and Clinical Care in the Elderly, 2013-Present  
Sleep Medicine, 2013-Present  
Contemporary Clinical Trials, 2013-Present  
Environmental Health Perspectives, 2013-Present  
Journal of Sleep Disorders: Treatment & Care, 2013-Present  
Economics and Human Biology, 2013-Present  
Annals of Internal Medicine, 2013-Present  
Behavior Research Methods, 2013-Present  
American Journal of Public Health, 2013-Present  
electronic International Journal of Time Use Research, 2014-Present  
European Heart Journal, 2014-Present  
The Lancet, 2014-Present  
Perceptual and Motor Skills, 2014-Present  
The Lancet Neurology, 2014-Present  
Transportation Research Part D: Transport and Environment, 2014-Present  
American Journal of Preventive Medicine, 2014-Present  
Cerebral Cortex, 2014-Present  
Sleep Medicine Reviews, 2015-Present  
Sleep Health, 2015-Present  
Nature Microgravity, 2015-Present  
Behavioral Sleep Medicine, 2015-Present  
Accident Analysis and Prevention, 2015-Present  
Proceedings of the National Academy of Sciences of the United States, 2016-Present  
Psychonomic Bulletin & Review, 2016-Present  
Applied Sciences, 2016-Present

Environmental Pollution, 2016-Present  
Military Medical Research, 2016-Present  
Scientific Reports, 2016-Present  
Journal of Psychosomatic Research, 2016-Present  
Environment International, 2016-Present  
Somatosensory & Motor Research, 2017-Present  
Science of the Total Environment, 2017-Present  
Safety, 2017-Present  
Journal of Sports Sciences, 2017-Present  
Neuroscience Letters, 2017-Present  
Medical Science Monitor Basic Research, 2017-Present  
Clinical Epidemiology, 2017-Present  
BioMed Research International, 2017-Present  
New England Journal of Medicine, 2017-Present  
International Journal of Obesity, 2017-Present  
Life Sciences in Space Research, 2017-Present  
International Journal of Hypertension, 2018-Present  
International Journal of Psychophysiology, 2018-Present  
Frontiers in Physiology, 2018-Present  
Environmental Health, 2018-Present  
Building and Environment, 2018-Present  
Trends in Cardiovascular Medicine, 2018-Present  
Frontiers in Human Neuroscience, 2018-Present  
Circulation, 2018-Present  
BMC Cancer, 2018-Present  
BMJ British Medical Journal, 2018-Present  
Journal of the American Heart Association, 2018-Present  
International Journal of Industrial Ergonomics, 2019-Present  
Frontiers in Psychology, 2019-Present  
Journal of Child Psychology and Psychiatry, 2019-Present  
Journal of the American Medical Association (JAMA), 2019-Present  
IEEE Transactions on Instrumentation and Measurement, 2019-Present  
JAMA Pediatrics, 2019-Present  
Journal of Experimental Psychology, 2020-Present  
Sustainability, 2020-Present  
Chronobiology International, 2020-Present



Physiologic Measurement, 2020-Present  
Ergonomics, 2020-Present

Academic and Institutional Committees:

2011-Present      Seminar Series Committee Member, Center for Sleep and Circadian  
Neurobiology (CSCN), Division of Sleep Medicine, Department of Medicine,  
University of Pennsylvania Perelman School of Medicine, Philadelphia, PA

2018-Present      Compensation Committee, Department of Psychiatry, University of  
Pennsylvania Perelman School of Medicine, Philadelphia, PA

Major Academic and Clinical Teaching Responsibilities:

1. Lecturer, "Effects of nocturnal aircraft noise on humans", faculty and reviewers, Quinquennial Review of the Institute of Aerospace Medicine, German Aerospace Center (DLR), Cologne, Germany, 03/14/2001
2. Lecturer, "Noise effects on humans—from impaired hearing to disturbed sleep", general public, School Lab of the German Aerospace Center (DLR), Göttingen, Germany, 12/06/2005
3. Mentor, Master of Science in Medical Engineering student (Christian Glatz) from Bremerhaven University, Bremerhaven, Germany, 2005
4. Lecturer, "Effects of nocturnal aircraft noise—from research to application", faculty and reviewers, Quinquennial Review of the Institute of Aerospace Medicine, German Aerospace Center (DLR), Cologne, Germany, 04/26/2006
5. Supervisor, undergraduate student (Julia Shin), Independent Study in Psychology, Biological Basis of Behavior (BBB 399), Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, Philadelphia, PA, 2007
6. Mentor, graduate student in Psychology (Sandra Schwanitz) from the Institute for Psychology, Department of Work and Engineering Psychology, Technical University Darmstadt, Germany, 2009
7. Mentor, graduate student in Psychology (Susanne Klein) from the Institute for Psychology, Department of Work and Engineering Psychology, Technical University Darmstadt, Germany, 2009
8. Supervisor, CTSA (Clinical and Translational Science Awards) Summer Undergraduate Internship Program student (Michael W. Antzis), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania School of Medicine, Philadelphia, PA, 2010
9. Mentor, Study design and analysis, VBA programming, post-baccalaureate trainee and research specialist (Eric Hyder), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania School of Medicine, 2010-2012

10. Mentor, Study design and analysis, VBA programming, post-baccalaureate trainee and research technician (Adrian Di Antonio), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania School of Medicine, 2010-2012
11. Instructor, Physiological and behavioral measurements, 20-30 undergraduate students (annually) working in the Sleep and Chronobiology Laboratory of the Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania School of Medicine, 2010-Present
12. Mentor, Study design and analysis, Statistics, post-baccalaureate trainee (Christopher Jones), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania School of Medicine, 2010-2014
13. Discussion Leader, Tassi, P., Rohmer, O., Schimchowitsch, S., Eschenlauer, A., Bonnefond, A., Margiocchi, F., Poisson, F., Muzet, A.: "Living alongside railway tracks: Long-term effects of nocturnal noise on sleep and cardiovascular reactivity as a function of age", Environment International 2010, 36(7):683-9, Sleep Medicine Journal Club, Center for Sleep and Circadian Neurobiology, Division of Sleep Medicine, Department of Medicine, University of Pennsylvania School of Medicine, 01/14/2011
14. Lecturer, "Sleep disturbances due to environmental noise", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 04/21/2011
15. Lecturer, "The sleepless society and your brain", undergraduate students, Preceptorials in Neuroscience and Society, The Wharton School, University of Pennsylvania, 11/22/2011
16. Mentor, EEG Power spectral analysis and unobtrusive detection of fatigue, post-doctoral researcher (Takashi Abe), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2011-2013
17. Lecturer, "Sleepless society - time use, sleep loss and performance ", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 04/19/2012
18. Lecturer, "The neurobehavioral consequences of sleep deprivation", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 07/18/2012
19. Lecturer, "Time use, sleep loss, and performance", undergraduate students, Preceptorials in Neuroscience and Society, Center for Neuroscience and Society, University of Pennsylvania, 11/06/2012
20. Mentor, Aircraft noise effects on sleep, post-doctoral researcher (Sarah McGuire), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2012-2017
21. Mentor, Neurocognitive assessment toolkit for space flight fatigue, post-doctoral researcher (Jason Schneiderman), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2012-2013

22. Supervisor, undergraduate student (Sarah Foley), Independent Study in Psychology, Biological Basis of Behavior (BBB 399), Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 2012
23. Lecturer, "Traffic noise effects on sleep and health", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 04/11/2013
24. Lecturer, "Observational data on sleep and vigilant attention in 137 interns and 87 residents at HUP and VA", Health Services Research Work-in-progress meeting, Division of General Internal Medicine, Perelman School of Medicine at the University of Pennsylvania, May 1, 2013
25. Lecturer, "The neurobehavioral consequences of sleep deprivation", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 07/03/2013
26. Lecturer, "Sleep deprivation", residents and faculty, Sleep Medicine Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 09/23/2013
27. Discussion Leader, Humphreys, K., Piot, P.: "Scientific evidence alone is not sufficient basis for health policy", British Medical Journal 344: e1316 (2012)mm, Sleep Medicine Journal Club, Center for Sleep and Circadian Neurobiology, Division of Sleep Medicine, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, 11/22/2013
28. Lecturer, "Sleep and circadian rhythms in space flight", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 03/28/2014
29. Lecturer, "Traffic noise effects on sleep and health", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 04/04/2014
30. Thesis committee member, Michael Grandner, "Short sleep duration, metabolic hormones, and inflammatory cytokines", Master in Translational Research (MTR), Perelman School of Medicine at the University of Pennsylvania, 2014
31. Mentor, Obesity and its relationship to waking activities, summer internship of medical student (Viral Patel), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 6/2014-8/2014
32. Mentor, Aircraft noise effects on sleep, research assistant (Maryam Witte), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2014-2017
33. Lecturer, "Sleep deprivation", residents and faculty, Sleep Medicine Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 10/17/2014
34. Lecturer, "Sleep deprivation", Current Topics in Sleep Medicine from the University of Pennsylvania, online CME course, Perelman School of Medicine at the University of Pennsylvania, 2014

35. Lecturer, "Are 6 hours really enough? The effects of sleep deprivation on cognitive performance and health", undergraduate students, Preceptorials in Neuroscience and Society, Center for Neuroscience and Society, University of Pennsylvania, 11/05/2014
36. Lecturer, "The neurobehavioral consequences of sleep deprivation", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 03/25/2015
37. Lecturer, "Sociodemographic characteristics and short sleep", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 04/03/2015
38. Lecturer, "Traffic noise effects on sleep and health", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 04/03/2015
39. Supervisor, undergraduate student (Jian Liu), Independent Study in Psychology, Biological Basis of Behavior (BBB 399), Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, Philadelphia, PA, 2015
40. Supervisor, undergraduate student (Emanuel Hermsillo), Independent Study in Psychology, Biological Basis of Behavior (BBB 399), Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, Philadelphia, PA, 2015
41. Lecturer, "Sleep deprivation", residents and faculty, Center for Sleep and Circadian Neurobiology (CSCN) Summer Lecture Series, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, 7/14/2015
42. Lecturer, "Strategies for Success: Tenure Track Professors", residents and faculty, Faculty Affairs and Professional Development ADVANCE program presentation, Perelman School of Medicine at the University of Pennsylvania, 9/10/2015
43. Lecturer, "Sociodemographic determinants and consequences of short sleep", residents and faculty, Psychiatry Grand rounds, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 10/22/2015
44. Lecturer, "Are 6 hours really enough? The effects of sleep deprivation on cognitive performance and health", undergraduate students, Preceptorials in Neuroscience and Society, Center for Neuroscience and Society, University of Pennsylvania, 11/18/2015
45. Lecturer, "Health in Space", students, Penn Aerospace Club, Huntsman Hall, G92, The Wharton School of the University of Pennsylvania, 2/25/2016
46. Class visit and lecturer, "Spaceflight and the one-year mission", 5<sup>th</sup> graders, Friends Central Elementary School, Wynnewood, PA, 3/10/2016
47. Lecturer, "Sociodemographic determinants and consequences of short sleep", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 3/29/2016
48. Lecturer, "Identifying and mitigating sleep restriction on Earth and in space", residents and faculty, Penn Sleep Medicine & Penn Chronobiology Program Collaborative Annual Research Retreat, Perelman School of Medicine at the University of Pennsylvania, 5/11/2016

49. Lecturer, "Sociodemographic determinants and consequences of short sleep", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 3/18/2016
50. Lecturer, "Sleep and circadian rhythms in spaceflight", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 3/18/2016
51. Lecturer, "Traffic noise effects on sleep and health", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 3/18/2016
52. Lecturer, "Sleep deprivation", residents and faculty, Center for Sleep and Circadian Neurobiology (CSCN) Summer Lecture Series, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, 7/14/2016
53. Mentor, Study on Increasing Cognition Administration Order Flexibility (Salil Saxena), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 6/2016-8/2016
54. Lecturer, "Sociodemographic determinants and consequences of short sleep", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 3/8/2017
55. Lecturer, "Sleep deprivation", residents and faculty, Center for Sleep and Circadian Neurobiology (CSCN) Summer Lecture Series, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, 7/14/2017
56. Lecturer, "Are 6 hours really enough? The effects of sleep deprivation on cognitive performance and health", undergraduate students, Preceptorials in Neuroscience and Society, Center for Neuroscience and Society, University of Pennsylvania, 11/15/2017
57. Lecturer, "Sleep-wake and circadian challenges on our way to Mars", undergraduate and master program students, Aerospace Club, Huntsman Hall, Perelman School of Medicine at the University of Pennsylvania, 11/29/2017
58. Mentor, Study design and analysis, Statistics, post-baccalaureate trainee (Maryam Witte), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania School of Medicine, 2014-2017
59. Mentor, Study design and analysis, Statistics, post-baccalaureate trainee (Emanuel Hermosillo), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, University of Pennsylvania School of Medicine, 2015-2018
60. Kings Court English House Hall Talk, "Sleep deprivation", undergraduate students, University of Pennsylvania, Kings Court English House, Sansom Street, Philadelphia, PA, 1/30/2018
61. Lecturer, "Sleep-wake and circadian challenges on our way to Mars", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 4/25/2018

62. Faculty Mentor, "Healthy Behaviors Competing for Time: Association of Sleep and Exercise in Working Americans", Master thesis for a degree in Public Health (Christopher Yao), Perelman School of Medicine at the University of Pennsylvania, 2017-18
63. Lecturer, "Sleep deprivation", residents and faculty, Center for Sleep and Circadian Neurobiology (CSCN) Summer Lecture Series, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, 7/13/2018
64. Lecturer, "The neurobehavioral consequences of sleep deprivation", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 3/6/2019
65. Lecturer, "Sleep-Wake and Circadian Challenges on Our Way to Mars", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 3/19/2019
66. Lecturer, "Effects of Environmental Noise on Sleep and Health", residents and faculty, Fourteenth Annual CEET Symposium - Environmental Neuroscience, Henry A. Jordan Medical Education Center, Perelman School of Medicine, University of Pennsylvania, 5/30/2019
67. Lecturer, "Healthy behaviors competing for time: associations of sleep and exercise in working Americans", students, residents, and faculty, Clock Meeting, Perelman School of Medicine at the University of Pennsylvania, 6/17/2019
68. Lecturer, "Sleep deprivation", residents and faculty, Center for Sleep and Circadian Neurobiology (CSCN) Summer Lecture Series, Department of Medicine, Perelman School of Medicine at the University of Pennsylvania, 7/10/2019
69. Lecturer, "Sleep deprivation", medical students, organized by the Psychiatry Student Interest Group, Jordan Medical Education Center, Perelman School of Medicine, Philadelphia, PA, 9/3/2019
70. Dissertation Committee Member, "Predictors of inter-individual differences in vulnerability to neurobehavioral consequences of chronic partial sleep restriction", Olga Galli, School of Arts and Sciences, Department of Psychology, University of Pennsylvania, 2016-2019
71. Chair, Mentoring Committee, David Roalf, Department of Psychiatry, Perelman School of Medicine, University of Pennsylvania, 2018-Present
72. Mentor, post-doctoral researcher (Michael Smith), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2018-Present
73. Post-doctoral researcher mentorship committee member (Christopher Jones), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2019-Present
74. Post-doctoral researcher mentorship committee member (Makayla Cordoza), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2019-Present

75. Mentor, post-doctoral researcher (Samantha Riedy), Unit for Experimental Psychiatry, Division of Sleep and Chronobiology, Department of Psychiatry, Perelman School of Medicine at the University of Pennsylvania, 2020-Present
76. Faculty Mentor, "Dynamic prediction of cognitive function in space", Master thesis for a degree in Statistics (Danni Tu), Perelman School of Medicine at the University of Pennsylvania, 2019-20
77. Lecturer, "Sleep Deprivation", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 4/21/2020
78. Lecturer, "Sleep-Wake and Circadian Challenges on Our Way to Mars", undergraduate students, Human Chronobiology and Sleep, Biological Basis of Behavior 240, Biological Basis of Behavior Program, School of Arts and Sciences, University of Pennsylvania, 4/28/2020
79. Lecturer, "The neurobehavioral consequences of sleep deprivation", residents and faculty, Department of Physical Medicine and Rehabilitation Grand Rounds, Perelman School of Medicine at the University of Pennsylvania, 4/28/2020

#### Lectures by Invitation:

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|--------------------|---|
| June 20, 2001      | "The influence of aircraft noise on human sleep", Le Bourget Air Show, ONERA (French Space Agency), Le Bourget, France  |
| September 13, 2001 | "Overview of variables influencing the results of the Pupillographic Sleepiness Test", Vigilance Working Group, 9 <sup>th</sup> Annual Meeting of the German Sleep Society (DGSM), Hamburg, Germany                   |
| June 15, 2004      | "Aircraft noise effects on sleep – new results of comprehensive laboratory and field studies conducted within the project 'Quiet Air Traffic'", 3 <sup>rd</sup> Conference on Aircraft Noise, Rheine, Germany         |
| July 16, 2004      | "Presentation of the DLR-Study", Conference on the Adverse Effects of Aircraft Noise, Ministry of the Environment, Bonn, Germany  |
| August 24, 2004    | "Aircraft noise effects on sleep: Final results of DLR laboratory and field studies of 2240 polysomnographically recorded subject nights", InterNoise 2004, Prague, Czech Republic                                    |
| September 30, 2005 | "Markov state transition models for the prediction of changes in sleep structure induced by aircraft noise", International Agency for Research on Cancer (IARC), Lyon, France   |
| October 16, 2005   | "Aircraft noise effects on sleep: results of 2240 polysomnographically recorded subject nights in laboratory and field studies", 1 <sup>st</sup> Congress of the World Association of Sleep Medicine, Berlin, Germany |
| January 17, 2006   | "Application of DLR results for a protective concept against adverse effects of nocturnal aircraft noise", Ministry of Transport, Bonn, Germany   |
| January 20, 2006   | "Aircraft noise protection concept for airport Leipzig/Halle", Aircraft Noise Symposium organized by the University of Leipzig, Leipzig, Germany  |

- March 8, 2006 "Aircraft noise protection concept for airport Leipzig/Halle", Meeting of the Aircraft Noise Commission of airport Leipzig/Halle, Leipzig/Halle Airport, Germany
- December 5, 2006 "Single and combined effects of air, road and rail traffic noise", InterNoise 2006, Honolulu, Hawaii, USA
- December 5, 2006 "Aircraft noise effects on sleep—DLR research and application", InterNoise 2006, Honolulu, Hawaii, USA
- March 13, 2008 "Sleep deprivation and performance", Marburger Bund Symposium: Work Time Restrictions in the Hospital and Health Protection, Stuttgart, Germany
- April 17, 2008 "Comparative studies on the effects of traffic noise on sleep", Meeting of the Working Group of German Aircraft Noise Commissions, Munich, Germany
- May 16, 2008 "Practical guidance for risk assessment of environmental noise on sleep disturbance", WHO Workshop Practical Guidance for Risk Assessment of Environmental Noise, Bonn, Germany
- September 19, 2008 "Comparative studies on the effects of traffic noise on sleep", Meeting of the Environmental Committee of the Federal German Airports Association, Hannover, Germany
- October 4, 2008 "Mathematical models for the evaluation of aircraft noise effects on sleep", Symposium Decision Making in Psychiatry, Hall in Tirol, Tirol, Austria
- April 8, 2009 "Noise effects on humans", Acoustics Circular Seminar, Braunschweig Acousticians Forum, Braunschweig Technical University, Braunschweig, Germany
- May 26, 2009 "Comparative studies on the effects of traffic noise on sleep", Acoustics Seminar, Department of Applied Physics, Carl von Ossietzky University Oldenburg, Oldenburg, Germany
- June 3, 2009 "Comparative studies on the effects of traffic noise on sleep", ADV (German Airports Association) Aviation Breakfast, Berlin, Germany
- August 25, 2009 "Practical guidance for risk assessment of traffic noise effects on sleep", InterNoise 2009, Ottawa, Canada
- August 25, 2009 "A systematic comparison of aircraft noise induced EEG awakenings and automatically detected cardiac arousals", InterNoise 2009, Ottawa, Canada
- October 2, 2009 "Comparative studies on the effects of traffic noise on sleep", 18th International Conference on Traffic Noise, Dresden, Germany
- October 26, 2009 "Evaluation of traffic noise effects on sleep", Euronoise 2009, Edinburgh, Scotland
- December 10, 2009 "An introduction to research on traffic noise effects on sleep", FAA (Federal Aviation Administration) Noise Research Roadmap Workshop, Washington, D.C.
- February 19, 2010 "Trading sleep for Conan and Letterman", Current Topics in Sleep Medicine seminar of the American Academy of Sleep Medicine, Phoenix, AZ



- April 20, 2010 "Aircraft noise induced sleep disturbance", Federal Environmental Agency Workshop Aircraft Noise, Collegium Hungaricum, Berlin, Germany
- May 27, 2010 "State of the evidence and methodological issues related to the health impact assessment of airport noise: the case of sleep disturbances", Université de Montréal, Montréal, Canada
- August 28, 2010 "Markov processes for the prediction of aircraft noise effects on sleep", 48th Annual Congress of the German Society of Aerospace Medicine (DGLRM), Wiesbaden, Germany
- September 24, 2010 "Aircraft noise effects on sleep", Aircraft Noise Effects Hearing, State Diet Landtag of Hesse, Wiesbaden, Germany
- October 7, 2010 "Traffic noise effects on sleep", Graduate Seminar Series, School of Mechanical Engineering, Purdue University, West Lafayette, IN
- May 23, 2011 "Fitness-for-duty: A brief Psychomotor Vigilance Test predicts sleep loss related decrements in simulated luggage screening performance", 1<sup>st</sup> International :envihab Symposium, Cologne, Germany
- October 5, 2011 "Noise - The other negative effect of false alarms", Medical Device Alarms Summit, AAMI (Association for the Advancement of Medical Instrumentation), Herndon, VA
- November 02, 2011 "Sick due to nocturnal aircraft noise? A noise effects research perspective", lecture evening of Medizinische Gesellschaft Mainz e.V., Mainz University, Mainz, Germany
- January 25, 2012 "Overview of aircraft noise effects on health and well-being", 91<sup>st</sup> Annual Transportation Research Board Meeting, Washington, D.C.
- March 30, 2012 "Time use, sleep loss and performance", 26th Annual Conference of the Northeast Sleep Society (NESS), Tarrytown, NY
- May 14, 2012 "Sleep-wake patterns and psychomotor vigilance performance during a 520-day simulated mission to Mars", 83<sup>rd</sup> Annual Scientific Meeting of the Aerospace Medical Association (AsMA), Atlanta, GA
- June 12, 2012 "Work, sleep loss, and performance", Symposium Work and Disturbed Sleep: Determinants and Consequences, 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA
- September 14, 2012 "Overview – Sleep and Sleep Deprivation", Workshop "The time has come: Translating research in chronobiology and sleep into practical applications", School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, PA
- November 30, 2012 "Aircraft noise effects on sleep and health", Seminar, Center for Acoustics and Vibration, The Pennsylvania State University, State College, PA
- March 1, 2013 "Research on the effects of aircraft noise on sleep", PARTNER 10 year Symposium, Westin South Coast Plaza Hotel, Costa Mesa, CA
- June 3, 2013 "Fitness-for-duty testing", Meet the Professor lunch workshop, 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD

- November 20, 2013 "Neurobehavioral consequences of sleep deprivation", Department of Psychiatry Grand Rounds, Jersey Shore University Medical Center, Neptune, NJ
- December 17, 2013 "Sleep and behavioral health on ISS: data from the Reaction Self Test", Institute of Aerospace Medicine, German Aerospace Center (DLR), Cologne, Germany
- February 11, 2014 "Psychological and behavioral changes during confinement in a 520-day simulated interplanetary mission to Mars", Behavioral Health and Performance Working Group meeting, NASA Human Research Program Investigators' Workshop, Galveston, TX
- May 3, 2014 "Noise and sleep", 6<sup>th</sup> Annual PA Sleep Society Conference, Harrisburg Hilton, Harrisburg, PA
- December 11, 2014 "Cognition – potential use in study of effects of hypercapnia", NASA Carbon Dioxide Technical Interchange Meeting, Nassau Bay, TX
- January 13, 2015 "Neurocognitive assessment in ground-based analogs", Human Research Analogs Plenary, NASA Human Research Program Investigators' Workshop, Galveston, TX
- March 27, 2015 "Short sleep and sleep deprivation: determinants, measurement, and consequences", 29<sup>th</sup> Annual Conference of the Northeast Sleep Society (NESS), Tarrytown, NY
- May 19, 2015 "Auditory and non-auditory effects of noise on health: an ICBEN perspective", Noise and Health, Special Session in Honor of Karl D. Kryter, 169<sup>th</sup> Meeting of the Acoustical Society of America, Pittsburgh, PA
- June 7, 2015 "Cognitive performance in spaceflight: Update on the development and validation of the Cognition test battery", National Space Biomedical Research Institute User Panel Meeting, Houston, TX
- July 28, 2015 "Sleep in space", Neurobehavioral Resilience During Prolonged Spaceflight Workshop, National Space Biomedical Research Institute, Houston, TX
- August 11, 2015 "Effects of aircraft noise on sleep: Habituation in the laboratory and in the field", Internoise 2015, San Francisco, CA
- August 13, 2015 "Non-auditory effects of transportation noise on health", ADC40 Workshop - Health Effects of Transportation Noise, San Francisco, CA
- March 18, 2016 "Auditory and non-auditory effects of noise on health", Professional Development Course "Occupational Noise and Hearing Conservation Forum", Philadelphia Section of the American Industrial Hygiene Association (AIHA), Villanova Conference Center, Radnor, PA
- September 6, 2016 "Sleep in space", The National Space Biomedical Research Institute Neurobehavioral and Psychosocial Factors Workshop on Inter-Individual and Phenotypic Differences in Response to Neurobehavioral Risks in Spaceflight, NSBRI Headquarters, Houston, TX
- November 21, 2016 "Sleep restriction: causes and consequences", Ann's Choice Lifelong Learning Academy, Warminster, PA

- February 28, 2017 “Aircraft noise and sleep disturbance”, UC Davis Aviation Symposium 2017, Palm Springs, CA
- April 24, 2017 “Aviation noise impacts”, International Civil Aviation Organization (ICAO) Independent Expert Panel Briefing, Crystal City, Arlington, VA
- May 6, 2017 “Sleep deprivation: determinants, measurement, and consequences”, 9<sup>th</sup> Annual PA Sleep Society Meeting, Harrisburg, PA
- May 8, 2017 “Effects of aviation noise on humans: learning, sleep, quality of life”, Engineering a Quieter America - Commercial Aviation: A New Era, workshop organized by the INCE Foundation in cooperation with NASA and the FAA, hosted by the National Academy of Engineering, The National Academies Keck Center, Washington, D.C.
- October 13, 2017 “Effects of noise on sleep – Overview”, Department of Occupational and Environmental Medicine, Institute of Medicine, University of Gothenburg, Sweden
- October 15, 2017 “Sleep-wake and circadian challenges on our way to Mars”, New Jersey Sleep Society Annual Meeting, The Princeton Marriott at Forrestal, Princeton, NJ
- November 1, 2017 “Aircraft noise effects on sleep and health”, Aviation Noise Impacts Workshop, International Civil Aviation Administration (ICAO), Committee on Aviation Environmental Protection, Impacts and Science Group, ICAO Headquarters, Montreal, Quebec, Canada
- November 15, 2017 “Sleep-wake and circadian challenges on our way to Mars”, Biomedical Seminar, School of Biomedical Engineering, Science & Health Systems at Drexel University, Philadelphia, PA
- February 27, 2018 “Aircraft noise and sleep disturbance”, UC Davis Aviation Symposium 2018, Palm Springs, CA
- February 28, 2018 “Auditory and non-auditory effects of noise on health”, NASA Ames Research Center, Mountain View, CA
- February 28, 2018 “Development and validation of the Cognition test battery for spaceflight”, NASA Ames Research Center, Mountain View, CA
- May 3, 2018 “Auditory and non-auditory effects of noise on health”, NASA Langley Research Center, Hampton, VA
- October 19, 2018 “Sleep-wake and circadian challenges on our way to Mars”, 10<sup>th</sup> Annual Conference of the Virginia Academy of Sleep Medicine, Richmond, VA
- November 15, 2018 “Your environment, your health”, speaker meetup hosted by the Robert Wood Johnson Foundation at TEDMED 2018, La Quinta, CA
- November 16, 2018 “The effects of noise on health”, TEDMED 2018, La Quinta, CA
- December 18, 2018 “Cognitive performance in spaceflight: update on the development and validation of the cognition test battery”, SAMET workshop, Institute of Aerospace Medicine, German Aerospace Center (DLR), Cologne, Germany

- February 6, 2019 “Health when noise is sleep”, Presentation at Translational Research Institute for Space Health (TRISH) Space<sup>2</sup> Workshop, MIT Media Lab, Cambridge, MA
- April 6, 2019 “Challenges for astronaut behavioral health on our way to Mars”, Keynote dinner lecture at the 2<sup>nd</sup> annual conference of the Ivy Space Coalition, Philadelphia, PA
- September 17, 2019 “Aircraft noise effects on sleep and health”, Tech Talk Tuesday Presentation at the Federal Aviation Administration (FAA) William J. Hughes Technical Center Auditorium, Weymouth, NJ
- November 4, 2019 “Auditory and non-auditory effects of noise on health”, Session “Environmental noise: The new secondhand smoke”, Annual meeting of the American Public Health Association, Philadelphia, PA
- November 25, 2019 “Noise effects on health”, Quiet Please! - An interactive workshop discussing health impacts and mitigation strategies from transportation noise in metro Vancouver, Vancouver, Canada

#### Organizing Roles in Scientific Meetings:

- 2010 Abstract Selection Committee Member, 32nd International Conference of the IEEE Engineering in Medicine and Biology Society, June 18-21, Buenos Aires, Argentina
- 2011 Member of the Scientific Committee, 10<sup>th</sup> Congress of the International Commission on Biological Effects of Noise (ICBEN) on Noise as a Public Health Problem, July 24-28, London, UK
- 2011 Organizing Committee Member, Center for Sleep and Circadian Neurobiology (CSCN) Research Retreat, May 20, Division of Sleep Medicine, Department of Medicine, University of Pennsylvania School of Medicine
- 2013 Member of the Scientific Committee, 19<sup>th</sup> IAA Humans in Space Symposium, July 7-12, Cologne, Germany
- 2017 Chair of Scientific Program Committee, 12<sup>th</sup> Congress of the International Commission on Biological Effects of Noise (ICBEN) on Noise as a Public Health Problem, June 18-22, Zurich, Switzerland
- 2019 International Advisory Board Member and Session Organizer, ICA 2019, 23<sup>rd</sup> International Congress on Acoustics, September 9-13, Aachen, Germany
- 2020 Chair of Scientific Program Committee, 13<sup>th</sup> Congress of the International Commission on Biological Effects of Noise (ICBEN) on Noise as a Public Health Problem, June 15-18, Stockholm, Sweden

#### Bibliography:

##### Research Publications, peer reviewed:

1. **Basner, M., Samel, A.:** Nocturnal aircraft noise effects. Noise & Health 6(22), 83-93, 2004.

2. Samel, A., **Basner, M.**: Extrinsic sleep disorders and effects of noise. Somnologie 9(2), 58-67, 2005.
3. **Basner, M.**, Samel, A.: Effects of nocturnal aircraft noise on sleep structure. Somnologie 9(2), 84-95, 2005.
4. Samel, A., **Basner, M.**, Maaß, H., Müller, U., Quehl, J., Wenzel, J.: Effects of nocturnal aircraft noise on sleep: Results from the 'Quiet Air Traffic' project. Umweltmedizin in Forschung und Praxis 10(2), 89-104, 2005.
5. **Basner, M.**, Isermann, U., Samel, A.: Aircraft noise effects on sleep: application of the results of a large polysomnographic field study. Journal of the Acoustical Society of America 119(5), 2772-2784, 2006.
6. Quehl, J., **Basner, M.**: Annoyance from nocturnal aircraft noise exposure: laboratory and field-specific dose-response curves. Journal of Environmental Psychology 26(2), 127-140, 2006.
7. **Basner, M.**, Siebert, U.: Markov state transition models for the prediction of noise-induced sleep disturbances. Somnologie 10(4), 176-191, 2006.
8. Samel, A., **Basner, M.**, Isermann, U.: Effects of nocturnal aircraft noise - Research and application exemplified by the airport Leipzig/Halle. Flug- und Reisemedizin 14(1), 12-16, 2007.
9. **Basner, M.**, Fomberstein, K.M., Razavi, F.M., Banks, S., William, J.H., Rosa, R.R., Dinges, D.F.: American Time Use Survey: Sleep time and its relationship to waking activities. Sleep 30(9), 1085-1095, 2007.
10. **Basner, M.**, Griefahn, B., Müller, U., Plath, G., Samel, A.: An ECG-based algorithm for the automatic identification of autonomic activations associated with cortical arousals. Sleep 30(10), 1349-1361, 2007.
11. **Basner, M.**, Glatz, C., Griefahn, B., Penzel, T., Samel, A.: Aircraft Noise: Effects on macro- and micro-structure of sleep. Sleep Medicine 9(4), 382-387, 2008.
12. **Basner, M.**, Griefahn, B., Penzel, T.: Inter-rater agreement in sleep stage classification between centers with different backgrounds. Somnologie 12(1), 75-84, 2008.
13. Griefahn, B., Bröde, P., Marks, A., **Basner, M.**: Autonomic arousals related to traffic noise during sleep. Sleep 31(4), 569-577, 2008.
14. Marks, A., Griefahn, B., **Basner, M.**: Event-related awakenings caused by nocturnal transportation noise. Noise Control Engineering Journal, 56(1), 52-62, 2008.
15. **Basner, M.**: Nocturnal aircraft noise exposure increases objectively assessed daytime sleepiness. Somnologie 12(2), 110-117, 2008.
16. Griefahn, B., **Basner, M.**, Bröde, P., Robens, S.: Development of a sleep disturbance index (SDI) for the assessment of noise-induced sleep disturbances. Somnologie 12(2), 150-157, 2008.
17. **Basner, M.**, Rubinstein, J., Fomberstein, K.M., Coble, M.C., Ecker, A., Avinash, D., Dinges, D.F.: Effects of night work, sleep loss and time on task on simulated threat detection performance. Sleep 31(9), 1251-1259, 2008.

18. **Basner, M.**, Müller, U., Elmenhorst, E.-M., Kluge, G., Griefahn, B.: Aircraft noise effects on sleep: A systematic comparison of EEG-awakenings and automatically detected cardiac activations. Physiological Measurement 29(9), 1089-1103, 2008.
19. Elmenhorst, E.-M., Vejvoda, M., Maaß, H., Wenzel, J., Plath, G., Schubert, E., **Basner, M.**: Pilot workload during approaches: Comparison of simulated standard and noise-abatement profiles. Aviation, Space, and Environmental Medicine 80(4), 364-370, 2009.
20. **Basner, M.**, Dinges, D.F.: Dubious bargain: Trading sleep for Leno and Letterman. Sleep 32(6), 747-752, 2009.
21. **Basner, M.**: Validity of aircraft noise induced awakening predictions. Noise Control Engineering Journal 57(5), 524-35, 2009.
22. Brink, M., **Basner, M.**, Schierz, C., Spreng, M., Scheuch, K., Bauer, G., Stahel, W.A.: Determining physiological reaction probabilities to noise events during sleep. Somnologie 13(4), 236-243, 2009.
23. **Basner, M.**, Müller, U., Griefahn, B.: Practical guidance for risk assessment of traffic noise effects on sleep. Applied Acoustics 71(6), 518-522, 2010.
24. **Basner, M.**: Arousal threshold determination in 1862: Kohlschütter's Measurements on the Firmness of Sleep. Sleep Medicine 11(4), 417-422, 2010.
25. **Basner, M.**, Siebert, U.: Markov processes for the prediction of aircraft noise effects on sleep. Medical Decision Making 30(2), 275-289, 2010.
26. **Basner, M.**, van den Berg, M., Griefahn, B.: Aircraft noise effects on sleep: Mechanisms, mitigation, and research needs. Noise & Health 12(47), 95-109, 2010.
27. Elmenhorst, E.-M., Elmenhorst, D., Wenzel, J., Quehl, J., Müller, U., Maaß, H., Vejvoda, M., **Basner, M.**: Effects of nocturnal aircraft noise on cognitive performance in the following morning: dose-response relationships in laboratory and field. International Archives of Occupational and Environmental Health 83, 743-751, 2010.
28. Brink, M., Schreckenber, D., Thomann, G., **Basner, M.**: Aircraft noise indexes for effect oriented noise assessment. Acta Acustica united with Acustica 96(6), 1012-1025, 2010.
29. **Basner, M.**, Müller, U., Elmenhorst, E.-M.: Single and combined effect of air, road, and rail traffic noise on sleep and recuperation. Sleep 34(1):11-23, 2011.
30. Griefahn, B., **Basner, M.**: Traffic noise - effects on sleep and performance. Arbeitsmedizin Sozialmedizin Umweltmedizin 46(4): 280-288, 2011.
31. **Basner, M.**, Dinges, D.F.: Maximizing sensitivity of the Psychomotor Vigilance Test (PVT) to sleep loss. Sleep 34(5): 581-591, 2011.
32. **Basner, M.**, Rubinstein, J.: Fitness for duty: A 3 minute version of the Psychomotor Vigilance Test predicts fatigue related declines in luggage screening performance. Journal of Occupational and Environmental Medicine 53(10): 1146-1154, 2011.
33. **Basner, M.**, Mollicone, D.M., Dinges, D.F.: Validity and sensitivity of a brief psychomotor vigilance test (PVT-B) to total and partial sleep deprivation. Acta Astronautica 69: 949-959, 2011.
34. Brink, M., Omlin, S., Müller, C., Pieren, R., **Basner, M.**: An event-related analysis of awakening reactions due to nocturnal church bell noise. Science of the Total Environment 409: 5210-5220, 2011.

35. **Basner, M., Dinges, D.F.:** An adaptive duration version of the PVT accurately tracks changes in psychomotor vigilance induced by sleep restriction. *Sleep* 35(2): 193-202, 2012.
36. Elmenhorst, E.-M., Pennig, S., Rolny, V., Quehl, J., Müller, U., Maaß, H., **Basner, M.:** Examining nocturnal railway noise and aircraft noise in the field: Sleep, psychomotor performance, and annoyance. *Science of the Total Environment* 424: 48-56, 2012.
37. Pennig, S., Quehl, J., Müller, U., Rolny, V., Maaß, H., **Basner, M., Elmenhorst, E.-M.:** Annoyance and self-reported sleep disturbance due to night-time railway noise examined in the field. *Journal of the Acoustical Society of America* 132(5): 3109-3117, 2012.
38. **Basner, M., Elmenhorst, E.-M., Brink, M.:** Critical appraisal of methods for the assessment of noise effects on sleep. *Noise & Health* 14(61): 321-329, 2012.
39. Volpp, K.G., Shea, J.A., Small, D.S., **Basner, M., Zhu, J., Norton, L., Ecker, A., Novak, C., Bellini, L.M., Dine, C.J., Mollicone, D.J., Dinges, D.F.:** Effect of a protected sleep period on hours slept during extended overnight in-hospital duty hours among medical interns: A randomized trial. *Journal of the American Medical Association* 308(21): 2208-2217, 2012.
40. Schwanitz, S., Wittkowski, M., Rolny, V., Samel, C., **Basner, M.:** Continuous assessments of pressure comfort on a train - A field-laboratory comparison. *Applied Ergonomics* 44 (1): 11-17, 2013.
41. Schwanitz, S., Wittkowski, M., Rolny, V., **Basner, M.:** Pressure variations on a train - where is the threshold to railway passengers' discomfort? *Applied Ergonomics* 44(2): 200-209, 2013.
42. **Basner, M., Dinges, D.F., Mollicone, D.J., Ecker, A.J., Jones, C.W., Hyder, E.C., Di Antonio, A., Savelev, I., Kan, K., Goel, N., Morukov, B.V., Sutton, J.P.:** Mars 520-day mission simulation reveals protracted crew hypokinesia and alterations of sleep duration and timing. *Proceedings of the National Academies of Science* 110(7): 2635-2640, 2013.
43. **Basner, M., Brink, M.:** Sample size estimation for field studies on the effects of aircraft noise on sleep. *Applied Acoustics* 74(6): 812-817, 2013.
44. Schmidt, F.P., **Basner, M., Kröger, G., Weck, S., Schnorbus, B., Muttray, A., Sariyar, M., Binder, H., Tommaso, G., Warnholtz, A., Münzel, T.:** Effect of nighttime aircraft noise exposure on endothelial function and stress hormone release in healthy adults. *European Heart Journal* 34(45): 3508-3514, 2013.
45. Elmenhorst, E.-M., Quehl, J., Müller, U., **Basner, M.:** Nocturnal air, road and rail traffic noise and daytime cognitive performance and annoyance. *Journal of the Acoustical Society of America* 135(1): 213-222, 2014.
46. **Basner, M., Dinges, D.F., Mollicone, D.J., Savelev, I., Ecker, A.J., Di Antonio, A., Jones, C.W., Hyder, E., Kan, K., Morukov, B.V., Sutton, J.P.:** Psychological and behavioral changes during confinement in a 520-day simulated interplanetary mission to Mars. *PLoS One* 9(3): e93298, 2014.
47. Shea, J.A., Dinges, D.F., Small, D.S., **Basner, M., Zhu, J., Norton, L., Ecker, A.J., Novak, C., Bellini, L.M., Dine, C.J., Mollicone, D.J., Volpp, K.G.:** A randomized trial of a 3-hour protected nap period in a medicine training program: Sleep, alertness and patient outcomes. *Academic Medicine* 6: 256-263, 2014.

48. Minkel, J.D., Moreta, M., Muto, J., Htaik, O., Jones, C., **Basner, M.**, Dinges, D.F.: Sleep deprivation potentiates HPA axis stress reactivity in healthy adults. Health Psychology 33(11): 1430-4, 2014.
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50. Yi, B., Rykova, M., Feuerecker, M., Jäger, B., Ladinig, C., **Basner, M.**, Hörl, M., Matzel, S., Kaufmann, I., Strewe, C., Nichiporuk, I., Vassilieva, G., Rinas, K., Baatout, S., Schelling, G., Thiel, M., Dinges, D.F., Morukov, B., Choukèr, A.: 520-d isolation and confinement simulating a flight to Mars reveals heightened immune responses and alterations of leukocyte phenotype. Brain, Behavior, and Immunity 40: 203-10, 2014.
51. Vejvoda, M., Elmenhorst, E.-M., Pennig, S., Plath, G., Maaß, H., Tritschler, K., **Basner, M.**, Aeschbach, D.: Significance of time awake for predicting pilots' fatigue on short-haul flights: implications for flight duty time regulations. Journal of Sleep Research 23(5): 564-7, 2014.
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53. Johannes, B., Sitev, A.S., Vinokhodova, A.G., Salnitski, V.P., Savchenko, E.G., Artyukhova, A.E., Bubeev, Y.A., Morukov, B., Tafforin, C., **Basner, M.**, Dinges, D.F., Rittweger, J.: Wireless monitoring of changes in crew relations during long-duration mission simulation. PLoS One, 10(8): e0134814, 2015.
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60. Schäffer, B., Pieren, R., Mendolia, F., **Basner, M.**, Brink, M.: Noise exposure-response relationships established from repeated binary observations: Modeling approaches and applications. Journal of the Acoustic Society of America 141(5): 3175-3185, 2017.
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37. Griefahn, B., Marks, A., **Basner, M.**: Awakenings related to noises from various traffic modes. Presented at InterNoise 2006, Honolulu, Hawaii, December 5, 2006.
38. Marks, A., Künemund, C., Griefahn, B., **Basner, M.**: Nocturnal awakenings related to road and rail traffic noise. Presented at the 47<sup>th</sup> Annual Meeting of the German Society for Occupational and Environmental Medicine, Rostock, Germany, March 22, 2007.
39. Dinges, D., **Basner, M.**, Fomberstein, K., Ecker, A., Coble, M., Avinash, D., Goel, N., Banks, S.: Effects of fatigue from night work and sleep loss on simulated threat detection performance. Poster at the 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 11, 2007.
40. Goel, N., Lakhtman, L., **Basner, M.**, Banks, S., Dinges, D.: Phenotyping neurobehavioral and cognitive responses to partial sleep deprivation. Poster at the 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 11, 2007.
41. Goel, N., Lakhtman, L., **Basner, M.**, Banks, S., Dinges, D.: Neurobehavioral and cognitive differences during total versus partial sleep deprivation. Poster at the 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 11, 2007.
42. **Basner, M.**, Müller, U., Plath, G., Samel, A.: ECG-based Algorithm for the Automatic Identification of Autonomic Activations Associated with Cortical Arousals. Poster at the 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 12, 2007.
43. **Basner, M.**, Siebert, U.: Markov State Transition Models for the Prediction of Changes in Sleep Structure Induced by Aircraft Noise. Poster at the 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 12, 2007.
44. Samel, A., **Basner, M.**, Isermann, U.: Aircraft Noise Effects on Sleep: DLR Research Results and Their Application. Poster at the 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 12, 2007.
45. Dinges, D., **Basner, M.**, Fomberstein, K., Ecker, A., Coble, M., Avinash, D., Goel, N., Banks, S.: Effects of Sleep Deprivation on Slow Eyelid Closures (PERCLOS) During Simulated Threat Detection Performance. Poster at the 21<sup>st</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 13, 2007.
46. Samel, A., **Basner, M.**, Griefahn, B.: Sleep disturbances: What are adequate descriptors? Presented at InterNoise 2007, Istanbul, Turkey, June 12, 2007.
47. Samel, A., **Basner, M.**, Isermann, U., Müller, U.: Aircraft noise effects on sleep, research results and applications. Talk at Aachen Aviation Convention, DGLR-Symposium The Airport as a Neighbor, Aachen, Germany, June 13, 2007.
48. **Basner, M.**, Fomberstein, K., Dinges, D.: American Time Use Survey: Sleep time and its relationship to waking activities. Presented at the 5<sup>th</sup> Congress of the World Federation of Sleep Research and Sleep Medicine Societies, Cairns, Australia, September 4, 2007.

49. Ecker, A., **Basner, M.**, William, J., Fomberstein, K., Niyogi, S., Coble, M., Banks, S., Dinges, D.: A briefer version of the psychomotor vigilance task. Presented at the 5<sup>th</sup> Congress of the World Federation of Sleep Research and Sleep Medicine Societies, Cairns, Australia, September 11, 2007.
50. Samel, A., **Basner, M.**, Isermann, U., Maaß, H., Quehl, J.: Aircraft noise effects on sleep – DLR research and application to a German airport. Presented at the 1<sup>st</sup> CEAS European Air and Space Conference, Berlin, Germany, September 11, 2007.
51. **Basner, M.**: Nocturnal aircraft noise exposure increases objectively assessed daytime sleepiness. Presented at the Proceedings of the 9<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Foxwoods, CT, USA, July 22, 2008.
52. **Basner, M.**, Elmenhorst, E.-M., Maaß, H., Müller, U., Quehl, J., Vejvoda, M.: Single and combined effects of air, road and rail traffic noise on sleep. Presented at the Proceedings of the 9<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Foxwoods, CT, USA, July 22, 2008.
53. Griefahn, B., Robens, S., Bröde, P., **Basner, M.**: The Sleep Disturbance Index - a measure for structural alterations of sleep due to environmental influences. Presented at the Proceedings of the 9<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Foxwoods, CT, USA, July 22, 2008.
54. **Basner, M.**: Aircraft noise effects on sleep: Substantiation of the DLR protection concept for airport Leipzig/Halle. Presented at the Proceedings of the 9<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Foxwoods, CT, USA, July 23, 2008.
55. **Basner, M.**, Müller, U., Elmenhorst, E.-M., Griefahn, B.: Aircraft noise effects on sleep: A systematic comparison of EEG awakenings and automatically detected cardiac arousals. Poster at the Proceedings of the 9<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Foxwoods, CT, USA, July 23, 2008.
56. **Basner, M.**, Siebert, U.: Markov state transition models for the prediction of changes in sleep structure induced by aircraft noise. Poster at the Proceedings of the 9<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Foxwoods, CT, USA, July 23, 2008.
57. Griefahn, B., Robens, S., Bröde, P., **Basner, M.**: Evaluation of sleep disturbances due to environmental influences using a newly developed index. Poster at the 19<sup>th</sup> Congress of the European Sleep Research Society, Glasgow, U.K., September 10, 2008, *Journal of Sleep Research*, 17 (Supp 1).
58. **Basner, M.**, Siebert, U.: Predicting aircraft noise induced changes in sleep structure with Markov models. Poster at the 19<sup>th</sup> Congress of the European Sleep Research Society, Glasgow, U.K., September 10, 2008, *Journal of Sleep Research*, 17 (Supp 1), 433.
59. **Basner, M.**: Nocturnal aircraft noise exposure increases objectively assessed daytime sleepiness. Poster at the 19<sup>th</sup> Congress of the European Sleep Research Society, Glasgow, U.K., September 10, 2008, *Journal of Sleep Research*, 17 (Supp 1), 512.
60. Müller, U., **Basner, M.**: Effects of nocturnal rail traffic noise on sleep - methodology and study design. Presented at InterNoise 2008, Shanghai, China, October 28, 2008.
61. **Basner, M.**, Siebert, U.: Markov state transition models for the prediction of changes in sleep structure induced by aircraft noise. Poster at the European Conference on Aerospace Medicine, Budapest, Hungary, November 13, 2008.

62. Mollicone, D., **Basner, M.**, Mott, C., Ecker, A., Dinges, D.F.: A novel brief objective PVT self test to enhance fatigue mitigation strategies in space. Presented at the NASA Human Research Program Investigator's Workshop, League City, Texas, USA, February 2, 2009.
63. **Basner, M.**, Quehl, J., Müller, U.: Cabin noise effects on passengers' comfort, communication and cognitive performance: methods and experimental design. Presented at the Workshop on Aviation System Technology, Hamburg, Germany, March 26, 2009.
64. **Basner, M.**, Müller, U., Griefahn, B.: Practical guidance for risk assessment of traffic noise effects on sleep. Presented at the 80<sup>th</sup> Annual Scientific Meeting of the Aerospace Medical Association (ASMA), Los Angeles, CA, USA, May 5, 2009.
65. Mollicone, D., **Basner, M.**, Mott, C., Ecker, A., Dinges, D.F.: A novel PVT Self-Test to enhance fatigue mitigation strategies in space. Presented at the 80<sup>th</sup> Annual Scientific Meeting of the Aerospace Medical Association (ASMA), Los Angeles, CA, USA, May 5, 2009.
66. **Basner, M.**, Dinges, D.F.: The time of our lives: Work, sleep, and television. Poster at the 23<sup>rd</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, USA, June 8, 2009.
67. Griefahn, B., **Basner, M.**: Noise induced sleep disturbances and after-effects on performance, well-being and health. Presented at Internoise2009, Ottawa, Canada, August 23, 2009.
68. Griefahn, B., Bröde, P., **Basner, M.**: Nocturnal transportation noise – its effects on heart rate. Presented at Internoise2009, Ottawa, Canada, August 25, 2009.
69. Hume, K.I., **Basner, M.**, Griefahn, B.: Sleep disturbance due to noise: key research issues for the future. Presented at Internoise2009, Ottawa, Canada, August 25, 2009.
70. Brink, M., **Basner, M.**, Stahel, W.: Determination of awakening probabilities in nighttime noise effects research. Presented at Euronoise 2009, Edinburgh, Scotland, October 27, 2009.
71. Griefahn, B., Bröde, P., **Basner, M.**: Nocturnal transportation noise – its effects on heart rate. Presented at Euronoise 2009, Edinburgh, Scotland, October 27, 2009.
72. Hume, K.I., **Basner, M.**, Griefahn, B.: Sleep disturbance due to noise: current status and research issues. Presented at Euronoise 2009, Edinburgh, Scotland, October 27, 2009.
73. Schreckenber, D., Thomann, G., **Basner, M.**: FFI and FNI – two effect based aircraft noise indices at Frankfurt Airport. Presented at Euronoise 2009, Edinburgh, Scotland, October 28, 2009.
74. Dinges, D.F., Metaxas, D., Banks, S., Goel, N., Ecker, A., **Basner, M.**: Overview of NSBRI neurobehavioral and psychosocial projects involving detection and mitigation of stress, fatigue and conflict in space [Abstract #1085]. Presented at NASA Human Research Program Investigator's Workshop, Houston, Texas, February 3-5, 2010.
75. Di Antonio, A.R., Goel, N., Banks, S., **Basner, M.**, Dinges, D.F.: The effects of cognitive workload during sleep restriction on polysomnographic measures. Poster at the 24<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX, USA, June 5-9, 2010.
76. Jones, C.W., Goel, N., Banks, S., **Basner, M.**, Dinges, D.F.: The effects of cognitive workload during sleep restriction on the 10-minute PVT. Poster at the 24<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX, USA, June 5-9, 2010.

77. Moreta, M.C., Goel, N., Banks, S., **Basner, M.**, Dinges, D.F.: The effects of cognitive workload during sleep restriction on executive function measures. Poster at the 24<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX, USA, June 5-9, 2010.
78. Muto, J., Banks, S., Goel, N., **Basner, M.**, Dinges, D.F.: The effects of cognitive workload and sleep restriction on the Maintenance of Wakefulness Test. Poster at the 24<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX, USA, June 5-9, 2010.
79. McGinley, S.T., Goel, N., Banks, S., **Basner, M.**, Dinges, D.F.: The effects of cognitive workload during sleep restriction on subjective sleepiness and fatigue. Poster at the 24<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX, USA, June 5-9, 2010.
80. Elmenhorst, E.-M., Wenzel, J., Quehl, J., Müller, U., Maaß, H., Vejvoda, M., Luks, N., **Basner, M.**: Nocturnal traffic noise and morning cognitive performance. Poster at the 24<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, San Antonio, TX, USA, June 5-9, 2010.
81. Griefahn, B., **Basner, M.**: Verkehrslärm - Wirkungen auf Schlaf and Leistung. 50. Jahrestagung der Deutschen Gesellschaft für Arbeitsmedizin und Umweltmedizin (DGAUM), Dortmund, Germany, June 16-19, 2010.
82. Griefahn, B., **Basner, M.**: Noise-induced sleep disturbances. The 20th International Congress on Acoustics (ICA), Special workshop for government officers organized by the Department of Environment, Climate Change and Water, Sydney, Australia, 24 August, 2010.
83. Stubna, M.D., Kan, K.G.W., Mott, C.G., **Basner, M.**, Dinges, D.F., Mollicone, D.J.: Individualized behavioral health monitoring tool. Poster at the 18th IAA Humans in Space Symposium, Houston, TX, April 10-15, 2011.
84. Kan, K.G.W., Stubna, M.D., Mott, C.G., **Basner, M.**, Dinges, D.F., Mollicone, D.J.: Individualized fatigue meter for facilitating crew performance in space. Poster at the 18th IAA Humans in Space Symposium, Houston, TX, April 10-15, 2011.
85. **Basner, M.**, Mollicone, D.J., Mott, C.G., Dinges, D.F.: Objective measurement of fatigue-related decrements in vigilant attention and psychomotor speed in space flight: PVT Self Test on ISS. Poster at the 18th IAA Humans in Space Symposium, Houston, TX, April 10-15, 2011.
86. Dinges, D.F., Mollicone, D.J., Ecker, A.E., Metaxas, D., **Basner, M.**: Objective monitoring of crew neurobehavioral functions in IBMP's 520-Day Mars simulation. Talk at the 18th IAA Humans in Space Symposium, Houston, TX, April 10-15, 2011.
87. Jones, C.W., **Basner, M.**, Goel, N., Metaxas, D., Dinges, D.F.: The validity of unobtrusive tracking of slow eyelid closures as a measure of space flight fatigue. Poster at the 18th IAA Humans in Space Symposium, Houston, TX, April 10-15, 2011.
88. Schwanitz, S., Wittkowski, M., Rolny, W., **Basner, M.**: Railway passengers' comfort sensations due to pressure variations on a train. Poster at the 1<sup>st</sup> International :envihab Symposium, Cologne, Germany, May 23, 2011.

89. Vejvoda, M., Plath, G., Samel, C., Tritschler, K., **Basner, M.**: Relationship between workload and fatigue on short-haul flights. Poster at the 1<sup>st</sup> International :envihab Symposium, Cologne, Germany, May 23, 2011.
90. **Basner, M.**, Mollicone, D.J., Dinges, D.F.: Validation of a modified brief version of the psychomotor vigilance test (PVT), Poster at the Research Retreat of the Center for Sleep and Circadian Neurobiology, Philadelphia, PA, May 20, 2011.
91. Jones, C.W., **Basner, M.**, Goel, N., Metaxas, D., Dinges, D.F.: Unobtrusive tracking of slow eyelid closures as a measure of fatigue from sleep loss. Poster at the Research Retreat of the Center for Sleep and Circadian Neurobiology, Philadelphia, PA, May 20, 2011.
92. **Basner, M.**, Mollicone, D.J., Dinges, D.F.: Validation of a modified brief version of the psychomotor vigilance test (PVT), Talk at the 25<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies APSS), Minneapolis, MN, June 14, 2011.
93. Jones, C.W., **Basner, M.**, Goel, N., Metaxas, D., Dinges, D.F.: Unobtrusive tracking of slow eyelid closures as a measure of fatigue from sleep loss. Poster at the 25<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies APSS), Minneapolis, MN, June 14, 2011.
94. Elmenhorst, E.-M., Müller, U., Rolny, V., Pennig, S., Quehl, J., Maaß, H., **Basner, M.**: Impact of nocturnal railway and aircraft noise on awakening probability in the field. Talk at the 10th International Congress on Noise as a Public Health Problem, London, U.K., July 25, 2011.
95. Pennig, S., Quehl, J., Müller, U., Elmenhorst, E.-M., Maaß, H., **Basner, M.**: Effects of nocturnal railway noise on annoyance: Dose-response relationships from a field study in comparison to nocturnal aircraft noise annoyance. Poster at the 10th International Congress on Noise as a Public Health Problem, London, U.K., July 25, 2011.
96. **Basner, M.**, Müller, U., Elmenhorst, E.-M.: Acoustic, individual, and situational determinants of vegetative and cortical arousals induced by traffic-noise during sleep. Talk at the 10th International Congress on Noise as a Public Health Problem, London, U.K., July 25, 2011.
97. Brink, M., Omlin, S., **Basner, M.**, Pieren, R.: An event-related examination of awakening reactions due to nocturnal church bell noise and neighborhood noises. Talk at the 10th International Congress on Noise as a Public Health Problem, London, U.K., July 25, 2011.
98. Brink, M., Schaeffer, B., Schreckenber, D., **Basner, M.**: Aircraft noise indexes - recent developments and current applications. Talk at the 10th International Congress on Noise as a Public Health Problem, London, U.K., July 25, 2011.
99. Müller, U., Elmenhorst, E.-M., Maaß, H., Rolny, V., Pennig, S., Quehl, J., **Basner, M.**: Effects of nocturnal rail noise on sleep – results of a field study in the Cologne/Bonn area. Talk at Internoise 2011, Osaka, Japan, September 6, 2011.
100. Vejvoda, M., Rooney, D., Plath, C., Samel, C., Tritschler, K., **Basner, M.**: Arbeitsbelastung und Ermüdung auf der Kurzstrecke. Poster at the Annual Congress of the German Society of Aerospace Medicine (DGLRM), Sinsheim, Germany, September 9, 2011.
101. Griefahn, B., **Basner, M.**: Disturbance of sleep by noise. Keynote at Acoustics 2011, Queensland, Australia, November 2, 2011.

102. Dinges, D.F., Di Antonio, A., Ecker, A.J., Mollicone, D.J., **Basner, M.**: Optimizing acquisition of behavioral health data on the crew of IBMP's 520-day simulated mission to Mars. Talk at NASA Human Research Program Investigators' Workshop, Houston, TX, February 14, 2012.
103. Stubna, M.D., Kann, K.G.W., Mott, C.G., **Basner, M.**, Dinges, D.F., Mollicone, D.J.: Software tool to support crew behavioral health and performance on ISS. Talk at NASA Human Research Program Investigators' Workshop, Houston, TX, February 14, 2012.
104. Jones, C.W., Yang, F., **Basner, M.**, Goel, N., Abe, T., Metaxas, D., Dinges, D.F.: Unobtrusive tracking of PERC LOS as a measure of sleepiness-related fatigue in space flight. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, February 14, 2012.
105. **Basner, M.**, Gur, R.C., Mollicone, D.J., Dinges, D.F.: NeuroCATS: Individualized real-time neurocognitive assessment toolkit for spaceflight fatigue. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, February 14, 2012.
106. **Basner, M.**, Mollicone, D.J., Mott, C., Dinges, D.F.: PVT Self Test on ISS: Objective measurement of fatigue-related decrements in vigilant attention and psychomotor speed in space flight. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, February 14, 2012.
107. **Basner, M.**, Di Antonio, A., Ecker, A.J., Mollicone, D.J., Dinges, D.F.: Sleep-wake patterns and psychomotor vigilance performance during a 520-day simulated mission to Mars. Talk at NASA Human Research Program Investigators' Workshop, Houston, TX, February 15, 2012.
108. **Basner, M.**, Mollicone, D.J., Dinges, D.F.: Development of briefer versions of the Psychomotor Vigilance Test (PVT) as sensitive assays of fatigue-related decrements in vigilant attention. Talk at NASA Human Research Program Investigators' Workshop, Houston, TX, February 15, 2012.
109. **Basner, M.**, Dinges, D.F., Mollicone, D.J., Savelev, I., Ecker, A.J., Di Antonio, A., Jones, C.W., Hyder, E., Kan, K., Morukov, B.V., Sutton, J.P.: Rest-activity pattern changes in a 520-day simulated Mars mission. Talk at International Symposium on the Results of Mars 500, Moscow, Russia, April 24, 2012.
110. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Savelev, I., Ecker, A.J., Di Antonio, A., Jones, C.W., Hyder, E., Kan, K., Morukov, B.V., Sutton, J.P.: Neurobehavioral responses during a 520-day simulated Mars mission. Talk at International Symposium on the Results of Mars 500, Moscow, Russia, April 24, 2012.
111. **Basner, M.**, Di Antonio, A., Jones, C.W., Ecker, A.J., Kan, K., Mollicone, D.J., Dinges, D.F.: Rest activity pattern changes in a 520-day simulated mission to Mars. Poster at the 9th Annual Center for Sleep and Circadian Neurobiology (CSCN) Research Retreat, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, June 8, 2012.
112. Jones, C.W., **Basner, M.**, Yu, X., Yang, F., Goel, N., Metaxas, D., Dinges, D.F.: Unobtrusive tracking of slow eyelid closures as a measure of fatigue from sleep loss. Poster at the 9th Annual Center for Sleep and Circadian Neurobiology (CSCN) Research Retreat, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, June 8, 2012.

113. Elmenhorst, E., Mueller, U., Rolny, V., Pennig, S., Quehl, J., Maass, H., **Basner, M.**: Comparison of awakening probability due to nocturnal railway and aircraft noise in the field. Talk at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 10, 2012.
114. Kan, K., Mollicone, D., Van Dongen, H., **Basner, M.**, Dinges, D.F.: Does napping on the night shift affect the efficiency of daytime recovery sleep? Poster at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 11, 2012.
115. **Basner, M.**, Di Antonio, A., Jones, C.W., Ecker, A.J., Kan, K., Mollicone, D.J., Dinges, D.F.: Sleep-Wake Behavior and PVT Performance During a 520-day Simulated Mission to Mars. Poster at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 12, 2012.
116. Jones, C.W., **Basner, M.**, Yu, X., Yang, F., Goel, N., Metaxas, D., Dinges, D.F.: Unobtrusive tracking of slow eyelid closures as a measure of fatigue from sleep loss. Talk at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 12, 2012.
117. Fang, Z., Zhu, S., Hu, S., Detre, J.A., Goel, N., **Basner, M.**, Dinges, D.F., Rao, H.: Total sleep deprivation reduces resting state PCC-Hippocampus connectivity. Talk at the 26th Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 13, 2012.
118. Vejvoda, M., Elmenhorst, E.-M., Pennig, S., Plath, G., Tritschler, K., **Basner, M.**: Early-starter and late-finisher flights and their effects on fatigue. Poster at 50. Jahrestagung der Deutschen Gesellschaft für Luft- und Raumfahrtmedizin e. V. (DGLRM), Bonn, Germany, September 29, 2012.
119. Pennig, S., Quehl, J., Müller, U., Rolny, V., Maaß, H., **Basner, M.**, Elmenhorst, E.-M.: Effects of nocturnal rail and aircraft noise on annoyance: Field studies in the Cologne/Bonn area. Poster at the Annual Congress of the German Society of Aerospace Medicine (DGLRM), Bonn, Germany, September 29, 2012.
120. Schwanitz, S., Wittkowski, M., Rolny, V., Samel, C., **Basner, M.**: A comparison of the effects of pressure fluctuations on rail passengers' comfort in the laboratory and in the field - continuous evaluations of pressure comfort on route Cologne/Rhein-Main and in the pressure chamber. Poster at the Annual Congress of the German Society of Aerospace Medicine (DGLRM), Bonn, Germany, September 29, 2012.
121. Elmenhorst, E.-M., Pennig, S., Rolny, V., Quehl, J., Müller, U., Maaß, H., **Basner, M.**: Nocturnal awakenings induced by rail and aircraft noise: Field studies in the Rhein valley and at airport Cologne/Bonn. Talk at the Annual Congress of the German Society of Aerospace Medicine (DGLRM), Bonn, Germany, September 29, 2012.
122. **Basner, M.**, Dinges, D.F., Mollicone, D.J., Savelev, I., Ecker, A.J., Di Antonio, A., Jones, C.W., Hyder, E., Kan, K., Morukov, B.V., Sutton, J.P.: Behavioral and psychosocial changes during a 520-day simulated mission to Mars. Talk at the 63rd International Astronautical Congress, Naples, Italy, October 1, 2012.
123. Jones, C., **Basner, M.**, Yu, X., Yang, F., Goel, N., Abe, T., Metaxas, D., Dinges, D.F.: An objective unobtrusive model-based tracker of facial expressions of sleepiness-related fatigue and positive and negative emotions in space flight. Talk at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 12, 2013.

124. **Basner, M.**, Dinges, D.F., Mollicone, D.J., Savelev, I., Ecker, A.J., Di Antonio, A., Jones, C.W., Hyder, E., Kan, K., Morukov, B.V., Sutton, J.P.: Behavioral and psychosocial changes during a 520-day simulated mission to Mars. Talk at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 12, 2013.
125. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Ecker, A.J., Jones, C.W., Hyder, E.C., Di Antonio, A., Savelev, I., Kan, K., Goel, N., Morukov, B.V., Sutton, J.P.: Mars 520-day mission simulation reveals changes in crew activity levels and alterations of sleep-wake patterns. Talk at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 13, 2013.
126. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Goel, N., Braun, M., Jones, C.W., Ecker, A., Bartels, R., Mott, C., Stubna, M.: ISS missions: elevated workload and reduced sleep duration. Talk at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 13, 2013.
127. Mollicone, D.J., Kan, K.G.W., Mott, C.G., **Basner, M.**, Dinges, D.F., Stubna, M.D.: BHP Dashboard as an aid in the detection of acute and chronic radiation effects. Talk at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 13, 2013.
128. Schneiderman, J.S., Gur, R.C., Dinges, D.F., Mollicone, D.J., Mott, C.G., McCann, T., Roberts, Z.T., Foley, S.L., Hansen, J., Savitt, A.P., **Basner, M.**: Individualized Real-Time Neurocognitive Assessment Toolkit for Spaceflight Fatigue (NeuroCATS). Talk at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 13, 2013.
129. Goel, N., **Basner, M.**, Rao, H., Dinges, D.F.: Markers of susceptibility to neurobehavioral decrements in space flight. Poster at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 13, 2013.
130. Stubna, M.D., Kan, K.G.W., Mott, C.G., **Basner, M.**, Dinges, D.F., Mollicone, D.J.: Software system for supporting crew behavioral health on ISS. Poster at the NASA Human Research Program Investigators' Workshop, Galveston, TX, February 13, 2013.
131. Schmidt, F.P., Kröger, G., Weck, S., Schnorbus, B., **Basner, M.**, Gori1, T., Warnholtz1, A., Münzel, T.: Nighttime aircraft noise exposure causes endothelial dysfunction in healthy adults. Poster at the 79<sup>th</sup> Annual Congress of the German Cardiac Society (DGK), Mannheim, Germany, April 5, 2013.
132. Bakhru, R.N., **Basner, M.**, Ecker, A., Prasad Kerlin, M., Halpern, S.D., Rosen, I.M., Hansen-Flaschen, J.H., Dinges, D.F., Schweickert, W.D.: The effects of nighttime in-hospital intensivist coverage on sleep, work and behavioral alertness in faculty and fellows. Poster at American Thoracic Society International Conference (ATS 2013), Philadelphia, PA, May 22, 2013.
133. **Basner, M.**, Spaeth, A., Dinges, D.F.: Sociodemographic and behavioral determinants of short sleep. Poster at the 10th Annual Research Retreat of the Center for Sleep and Circadian Neurobiology, Levy Conference Center, University of Pennsylvania, Philadelphia, PA, May 30, 2013.



134. Fang, Z., Spaeth, A.M., Zhu, S., Taylor, A., Goel, N., **Basner, M.**, Detre, J.A., Dinges, D.F., Rao, H.: Enhanced resting-state striatal connectivity correlates with increases in daily caloric intake after sleep deprivation. Talk at the 10th Annual Research Retreat of the Center for Sleep and Circadian Neurobiology, Levy Conference Center, University of Pennsylvania, Philadelphia, PA, May 30, 2013.
135. Jones, C.W., **Basner, M.**, Mollicone, D.J., Dinges, D.F.: Self-reported and scheduled sleep in spaceflight. Poster at the 10th Annual Research Retreat of the Center for Sleep and Circadian Neurobiology, Levy Conference Center, University of Pennsylvania, Philadelphia, PA, May 30, 2013.
136. Langguth, J.J., Jones, C.W., Ecker, A.J., **Basner, M.**, Dinges, D.F.: Polysomnographic validation of the Philips Respironics Actiwatch AW64 in healthy adults. Poster at the 10th Annual Research Retreat of the Center for Sleep and Circadian Neurobiology, Levy Conference Center, University of Pennsylvania, Philadelphia, PA, May 30, 2013.
137. Rao, H., Fang, Z., Zhu, S., Hu, S., Goel, N., **Basner, M.**, Detre, J.A., Dinges, D.F.: Reduced resting-state connectivity between PCC and hippocampus correlates with memory performance changes after sleep deprivation. Poster at the 10th Annual Research Retreat of the Center for Sleep and Circadian Neurobiology, Levy Conference Center, University of Pennsylvania, Philadelphia, PA, May 30, 2013.
138. Schneiderman, J.S., Gur, R.C., Dinges, D.F., Mollicone, D.J., Mott, C.G., McCann, T., Roberts, Z.T., Foley, S.L., **Basner, M.**: Individualized neurocognitive assessment toolkit for spaceflight fatigue (NeuroCATS). Poster at the 10th Annual Research Retreat of the Center for Sleep and Circadian Neurobiology, Levy Conference Center, University of Pennsylvania, Philadelphia, PA, May 30, 2013.
139. Shea, J.A., Dinges, D.F., Small, D.S., **Basner, M.**, Zhu, J., Norton, L., Novak, C., Bellini, L.M., Dine, J.C., Volpp, K.G.: A randomized trial of a 3-hour protected sleep period in medical interns. Poster at the 10th Annual Research Retreat of the Center for Sleep and Circadian Neurobiology, Levy Conference Center, University of Pennsylvania, Philadelphia, PA, May 30, 2013.
140. Rao, H., Fang, Z., Zhu, S., Hu, S., Goel, N., **Basner, M.**, Detre, J.A., Dinges, D.F.: Reduced resting-state connectivity between PCC and hippocampus correlates with memory performance changes after sleep deprivation. Talk at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 2, 2013.
141. Abe, T., **Basner, M.**, Goel, N., Dinges, D.F.: Relationship of polysomnography and EEG power spectral density with individual differences in PVT lapses in response to chronic sleep restriction. Talk at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 3, 2013.
142. Schneiderman, J.S., Gur, R.C., Dinges, D.F., Mollicone, D.J., Mott, C.G., McCann, T., Roberts, Z.T., Foley, S.L., **Basner, M.**: Individualized neurocognitive assessment toolkit for spaceflight fatigue (NeuroCATS). Poster at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 3, 2013.
143. **Basner, M.**, Spaeth, A., Dinges, D.F.: Sociodemographic and behavioral determinants of short sleep. Poster at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 3, 2013.

144. Jones, C.W., **Basner, M.**, Mollicone, D.J., Dinges, D.F.: Self-reported and scheduled sleep in spaceflight. Talk at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 4, 2013.
145. Shea, J.A., Dinges, D.F., Small, D.S., **Basner, M.**, Zhu, J., Norton, L., Novak, C., Bellini, L.M., Dine, J.C., Volpp, K.G.: A randomized trial of a 3-hour protected sleep period in medical interns. Talk at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 4, 2013.
146. Frager, N.A., **Basner, M.**, Galetta, S.L., Balcer, L.J., Goel, N., Dinges, D.F.: Cognitive effects of sleep deprivation using the King-Devick test. Poster at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 4, 2013.
147. Langguth, J.J., Jones, C.W., Ecker, A.J., **Basner, M.**, Dinges, D.F.: Polysomnographic validation of the Philips Respironics Actiwatch AW64 in healthy adults. Poster at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 5, 2013.
148. Fang, Z., Spaeth, A., Zhu, S., Hu, S., Taylor, A., Goel, N., **Basner, M.**, Detre, J.A., Dinges, D.F., Rao, H.: Enhanced resting-state striatal connectivity correlates with increases in daily caloric intake after sleep deprivation. Talk at the 27<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Baltimore Convention Center, Baltimore, MD, June 5, 2013.
149. Goel, N., **Basner, M.**, Rao, H., Dinges, D.F.: Markers of susceptibility to neurobehavioral decrements in space flight. Poster at the 19<sup>th</sup> IAA Humans in Space Symposium, Cologne, Germany, July 10, 2013.
150. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Jones, C.W., Ecker, A.J., Bartels, R., Mott, C., Stubna, M.: ISS missions: elevated workload and reduced sleep duration. Poster at the 19<sup>th</sup> IAA Humans in Space Symposium, Cologne, Germany, July 10, 2013.
151. **Basner, M.**, Dinges, D.F., Mollicone, D.J., Savelev, I., Ecker, A.J., Di Antonio, A., Jones, C.W., Hyder, E.C., Goel, N., Kan, K., Morukov, B.V., Sutton, J.P.: 520-day Mars mission simulation reveals changes in crew activity levels and alterations of sleep-wake patterns. Poster at the 19<sup>th</sup> IAA Humans in Space Symposium, Cologne, Germany, July 10, 2013.
152. Dinges, D.F., Jones, C.W., **Basner, M.**, Yu, X., Yang, F., Goel, N., Abe, T., Metaxas, D.N.: Monitoring of sleepiness-related fatigue in space flight with optical computer recognition. Talk at the 19<sup>th</sup> IAA Humans in Space Symposium, Cologne, Germany, July 10, 2013.
153. **Basner, M.**, Dinges, D.F., Mollicone, D.J., Savelev, I., Ecker, A.J., Di Antonio, A., Jones, C.W., Hyder, E.C., Kan, K., Morukov, B.V., Sutton, J.P.: Behavioral and psychosocial changes during a 520-day simulated mission to Mars. Talk at the 19<sup>th</sup> IAA Humans in Space Symposium, Cologne, Germany, July 10, 2013.
154. Dinges, D.F., Jones, C.W., **Basner, M.**, Yang, F., Goel, N., Abe, T., Metaxas, D.N.: An objective unobtrusive model-based tracker of facial expressions of emotions in space flight. Poster at the 19<sup>th</sup> IAA Humans in Space Symposium, Cologne, Germany, July 10, 2013.
155. Schneiderman, J., Gur, R., Dinges, D.F., Mollicone, D.J., Mott, C., McCann, T., Roberts, Z., Mott, A., Savitt, A., **Basner, M.**: Individualized Neurocognitive Assessment Toolkit for Spaceflight Fatigue (NeuroCATS). Talk at the 19<sup>th</sup> IAA Humans in Space Symposium, Cologne, Germany, July 10, 2013.

156. Vejvoda, M., Elmenhorst, E.-M., Pennig, S., Plath, G., Tritschler, K., Aeschbach, D., **Basner, M.**: Ermüdungsrelevante Faktoren bei Piloten auf der Kurzstrecke. Talk at the Annual Congress of the German Society of Aerospace Medicine (DGLRM), Friedrichshafen, Germany, September 13, 2013.
157. McGuire, S., **Basner, M.**: Refinement of an ECG-based approach for detecting awakenings in a study on aircraft noise-induced sleep disturbance. Talk at NOISE-CON 2013, Denver, CO, August 28, 2013.
158. **Basner, M.**, Schneiderman, J.S., Dinges, D.F., Mollicone, D.J., Mott, C.G., McCann, T., Savitt, A.P., Moore, T.M., Quarmley, M., Gur, R.C.: Development and validation of the Cognition test battery. Talk at NASA Human Research Program Investigators' Workshop, Galveston, TX, February 12, 2014.
159. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Jones, C.W., Ecker, A.J., Bartels, R., Mott, C.: Effects of time in mission: ISS astronauts ratings of stress. Talk at NASA Human Research Program Investigators' Workshop, Galveston, TX, February 12, 2014.
160. Mollicone, D.J., Stubna, M.D., Kan, K.G.W., Mott, C.G., **Basner, M.**, Dinges, D.F., Pickard, S.: Software system for real-time medical operational support on ISS. Talk at NASA Human Research Program Investigators' Workshop, Galveston, TX, February 12, 2014.
161. Dinges, D.F., Jones, C.W., **Basner, M.**, Yu, X., Yang, F., Goel, N., Abe, T., Metaxas, D.N.: Development and validation of optical computer recognition (OCR) to detect fatigue and emotion in space flight. Talk at NASA Human Research Program Investigators' Workshop, Galveston, TX, February 12, 2014.
162. **Basner, M.**, Spaeth, A., Dinges, D.F.: The relationship between television viewing and sleep duration. Poster at the 28<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 4, 2014.
163. Perlis, M.L., Grandner, M.A., **Basner, M.**, Chakravorty, S., Brown, G.K., Morales, K.H., Thase, M.E., Dinges, D.F., Gehrman, P.R., Chaudhary, N.S.: When accounting for wakefulness, completed suicides exhibit an increased likelihood during circadian night. Talk at the 28<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 3, 2014.
164. Rao, H., Fang, Z., Spaeth, A.M., Zhu, S., Goel, N., **Basner, M.**, Detre, J.A., Dinges, D.F.: Late-night fat intake modulates next day resting-state reward pathway connectivity during sleep deprivation. Talk at the 28<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, June 3, 2014.
165. **Basner, M.**, McGuire, S., Müller, U., Elmenhorst, E.-M.: Inter-individual differences in the effects of aircraft noise on sleep fragmentation. Talk at the 11<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Nara, Japan, June 2, 2014.
166. McGuire, S., Müller, U., Plath, G., **Basner, M.**: Refinement and validation of an ECG based algorithm for detecting awakenings. Talk at the 11<sup>th</sup> International Congress on Noise as a Public Health Problem (ICBEN), Nara, Japan, June 2, 2014.
167. **Basner, M.**, McGuire, S., Müller, U., Elmenhorst, E.-M.: Inter-individual differences in the effects of aircraft noise on sleep fragmentation. Talk at the Penn Center for Sleep & Circadian Neurobiology & Chronobiology Program Research Retreat, University of Pennsylvania, Philadelphia, PA, June 23, 2014.

168. McGuire, S., Müller, U., Plath, G., **Basner, M.**: Refinement and validation of an ECG based algorithm for detecting awakenings. Poster at the Penn Center for Sleep & Circadian Neurobiology & Chronobiology Program Research Retreat, University of Pennsylvania, Philadelphia, PA, June 23, 2014.
169. **Basner, M.**, Spaeth, A., Dinges, D.F.: The relationship between television viewing and sleep duration. Poster at the Penn Center for Sleep & Circadian Neurobiology & Chronobiology Program Research Retreat, University of Pennsylvania, Philadelphia, PA, June 23, 2014.
170. **Basner, M.**, Dinges, D.F.: New likelihood ratio metric for the Psychomotor Vigilance Test and implications for the choice of a primary outcome metric. Poster at the Penn Center for Sleep & Circadian Neurobiology & Chronobiology Program Research Retreat, University of Pennsylvania, Philadelphia, PA, June 23, 2014.
171. Goel, N., Abel, T., **Basner, M.**, Bhatnagar S., Dinges, D., Kirkpatrick, J., Weljie, A.: Biomarkers as predictors of resiliency and susceptibility to stress in space flight. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, January 13, 2015.
172. Dinges, D.F., Metaxas, D.N., Jones, C.W., Zhong, L., Yu, X., Dennis, L., Trentalange, M., Ecker, A., **Basner, M.**: Optical Computer Recognition (OCR) of stress, negative affect and fatigue in space flight: proof-of-principle. Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, January 14, 2015.
173. Mollicone, D.J., Stubna, M.D., Kan, K.G.W., Mott, C.G., **Basner, M.**, Dinges, D.F., Pickard, S.: Behavioral Health and performance dashboard software (BHP-DS). Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, January 14, 2015.
174. **Basner, M.**, Dinges, D.F., McGuire, S., Nasrini, J., Mollicone, D.J., Mott, C.G., McCann, T., Port, A., Savitt, A., Moore, T.M., Gur, R. C.: Cognitive performance in space flight: update on the development and validation of the Cognition test battery. Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, January 14, 2015.
175. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Ecker, A.E., Jones, C.W., Hyder, E.C., DiAntonio, A., Savelev, I., Kan, K., Morukov, B.V., Sutton, J.P.: Reaction Self-Test (RST) results from astronauts on ISS compared to RST assessments from the crew of the 520-day simulated mission to Mars. Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, January 14, 2015.
176. McGuire, S., Ecker, A.J., Nasrini, J., Dinges, D.F., **Basner, M.**: An objective measure of crew cohesion in space flight using proximity sensors. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, January 15, 2015.
177. **Basner, M.**, Nasrini, J., McGuire, S., Dinges, D.F., Goel, N., Ecker, A.J., Johannes, B., Rittweger, J., Gerlach, D., Stahn, A., Gunga, H.-C., Mollicone, D.J., Mott, C.G., Satterthwaite, T., Elliott, M., Bilker, W., Gur, R.C.: Neurostructural, cognitive, and physiologic changes during a 1-year Antarctic winter-over mission: study design and research methodology. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, January 15, 2015.
178. Tkachenko, O., Jones, C.W., Allen, J., Banks, S., **Basner, M.**, Dinges, D.F.: Impact of recovery sleep opportunity on neurobehavioral measures following chronic sleep restriction. Talk at the 29<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, June 7, 2015.

179. **Basner, M.**, McGuire, S., Goel, N., Rao, H., Dinges, D.F.: New likelihood ratio metric for the psychomotor vigilance test and implications for the choice of a primary PVT outcome metric. Poster at the 29<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, June 8, 2015.
180. Ma, N., Spaeth, A., Fang, Z., Goel, N., **Basner, M.**, Dinges, D.F., Rao, H.: Time-of-day variations in brain function: an ASL perfusion imaging study. Poster at the 29<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, June 9, 2015.
181. Taylor, A.L., **Basner, M.**, Dinges, D.F., Gur, R.C., Goel, N., Spaeth, A.M.: Vitamin E intake associates with spatial memory performance during sleep restriction in healthy women. Poster at the 29<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, June 9, 2015.
182. **Basner, M.**, McGuire, S., Müller, U., Elmenhorst, E.-M.: Inter-individual differences in the effects of aircraft noise on sleep fragmentation. Poster at the 29<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, June 9, 2015.
183. McGuire, S., **Basner, M.**: Predictions of sleep disturbance for different nighttime airport operation strategies using a new Markov state transition model. Poster at the 29<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, June 10, 2015.
184. Tkachenko, O., Jones, C.W., Allen, J., Banks, S., **Basner, M.**, Dinges, D.F.: Impact of recovery sleep opportunity on neurobehavioral measures following chronic sleep restriction. Talk at the 2<sup>nd</sup> Annual CSCN & Penn Chronobiology Research Retreat, Philadelphia, PA, June 17, 2015.
185. McGuire, S., **Basner, M.**: Predictions of sleep disturbance for different nighttime airport operation strategies using a new Markov state transition model. Poster at the 2<sup>nd</sup> Annual CSCN & Penn Chronobiology Research Retreat, Philadelphia, PA, June 17, 2015.
186. Taylor, A.L., **Basner, M.**, Dinges, D.F., Gur, R.C., Goel, N., Spaeth, A.M.: Vitamin E intake associates with spatial memory performance during sleep restriction in healthy women. Poster at the 2<sup>nd</sup> Annual CSCN & Penn Chronobiology Research Retreat, Philadelphia, PA, June 17, 2015.
187. Johnston, S., Dinges, D.F., Jones, C.W., Ecker, A.J., Baskin, P., **Basner, M.**: Cognitive effects of abrupt awakening from sleep after ingestion of zolpidem and zaleplon: a randomized controlled trial. Poster at the 2<sup>nd</sup> Annual CSCN & Penn Chronobiology Research Retreat, Philadelphia, PA, June 17, 2015.
188. **Basner, M.**, Dinges, D.F., Shea, J.A., Small, D.S., Zhu, J., Norton, L., Ecker, A.J., Novak, C., Bellini, L.M., Volpp, K.G.: Sleep and alertness in medical interns and residents working regular and 30 hour overnight shifts. Poster at the 2<sup>nd</sup> Annual CSCN & Penn Chronobiology Research Retreat, Philadelphia, PA, June 17, 2015.
189. **Basner, M.**, McGuire, S., Nasrini, J., Hermsillo, E., Ecker, A.J., Mollicone, D.J., Mott, C.G., Port, A.M., Moore, T.M., Gur, R.C., and Dinges, D.F.: Behavioral core measures (BCM): Cognition. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
190. **Basner, M.**, Dinges, D.F., McGuire, S., Nasrini, J., Hermsillo, E., Ecker, A.J., Mollicone, D.J., Mott, C.G., Port, A.M., Moore, T.M., and Gur, R.C.: Update on the development and validation of the cognition test battery for spaceflight. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.

191. **Basner, M.**, Dinges, D.F., Nasrini, J., McGuire, S., Hermosillo, E., Ecker, A.J., Johannes, B., Gerlach, D.A., Stahn, A., Gunga, H.C., Mollicone, D.J., Mott, C.G., Melzer, T., Roalf, D., Elliott, M., Prabhakaran, K., Bilker, W., and Gur, R.C.: Neurostructural, cognitive, and physiologic changes during a 1-year Antarctic winter-over mission. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
192. **Basner, M.**, Dinges, D.F., Nasrini, J., McGuire, S., Hermosillo, E., Ecker, A.J., Mollicone, D.J., Moore, T.M., and Gur, R.C.: Spaceflight effects on cognitive performance in the TWINS study. Oral Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 8, 2016.
193. Dinges, D.F., Metaxas, D.N., Zhong, L., Yu, X., Wang, L., Dennis, L., Ecker, A., Yu, A., Trentalange, M., Jones, C.W., and **Basner, M.**: Optical computer recognition (OCR) of stress, affect and fatigue in spaceflight. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
194. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Ecker, A., Jones, C.W., Hyder, E.C., Di Antonio, A., Dennis, L., and Kan, K.: Reaction self-test (RST) from 6-month missions on ISS (PVT on ISS). Oral Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 10, 2016.
195. Dinges, D.F., **Basner, M.**, Mollicone, D.J., Stuster, J., Strangman, G., Roma, P., Gur, R.C., Stahn, A., Dennis, L., Trentalange, M., Ecker, A.J., Nasrini, J., and Mott, C.: Standardized behavioral measures toolkit (SBMT): Overview. Oral Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 10, 2016.
196. Dinges, D.F., Dennis, L., Trentalange, M., Ecker, A.J., Nasrini, J., and **Basner, M.**: Standardized behavioral measures toolkit (SBMT): Self-report measures. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
197. Dinges, D.F., Goel, N., **Basner, M.**, Rao, H., McGuire, S., Dennis, L., Allen, J., and Trentalange, M.: Markers of susceptibility to neurobehavioral decrements in spaceflight. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
198. Goel, N., Dennis, L., Ecker, A., Abel, T., **Basner, M.**, Bhatnagar, S., Dinges, D.F., Kirkpatrick, J., and Weljie, A.: Biomarkers as predictors of resiliency and susceptibility to stress in space flight. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
199. Hermosillo, E., Dinges, D.F., McGuire, S., Nasrini, J., Ecker, A.J., Mollicone, D.J., Mott, C.G., Port, A.M., Moore, T.M., Gur, R.C., and **Basner, M.**: Structured debriefs on feasibility and acceptability of the cognition test battery for spaceflight. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
200. Johnston, S., Dinges, D.F., Jones, C.W., Ecker, A.J., Baskin, P., Trentalange, M., and **Basner, M.**: Operational ground testing protocol to optimize astronaut sleep medication efficacy and individual effects. Oral Presentation at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 10, 2016.
201. McGuire, S., Dinges, D.F., Nasrini, J., Hermosillo, E., Ecker, A.J., Johannes, B., Stahn, A., Gur, R.C., and **Basner, M.**: Sleep continuity and heart rate variability during a 1-year Antarctic winter-over mission. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.

202. Nasrini, J., Dinges, D.F., McGuire, S., Hermosillo, E., Ecker, A.J., Mollicone, D.J., Mott, C.G., Port, A., Moore, T.M., Gur, R.C., and **Basner, M.**: Cognition in a human exploration research analog (HERA). Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
203. Gur, R.C., **Basner, M.**, Moore, T.M., Kabadi, S., Nasrini, J., Roalf, D., Ruparel, K., Port, A., Jackson, C., and Dinges, D.F.: Cognition validation study in high-performing healthy controls. Poster at NASA's Human Research Program Investigators' Workshop, Galveston, TX, February 9, 2016.
204. **Basner, M.**: Effects of environmental noise on sleep and health: Mechanisms, mitigation, and research needs. Oral Presentation at the 30<sup>th</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Denver, June 14, 2016.
205. Tkachenko, O., Abe, T., **Basner, M.**, and Dinges, D.F.: Individual differences in neurobehavioral response to chronic sleep restriction are not related to markers of physiological sleep homeostasis. Oral Presentation at the 30<sup>th</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Denver, June 14, 2016.
206. Dinges, D.F., Johnston, S., Jones, C.W., Ecker, A.J., Baskin, P., and **Basner, M.**: A placebo-controlled cross-over trial on the cognitive effects of emergent awakening from sleep after ingestion of Zolpidem and Zaleplon. Oral Presentation at the 30<sup>th</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Denver, June 15, 2016.
207. Xu, S., Fang, Z., Ma, N., Zhu, S., Spaeth, A., Shi, H., **Basner, M.**, Goel, N., Wang, S., Detre, J.A., Dinges, D.F., and Rao, H.: Acute total sleep deprivation alters midbrain water diffusivity in cognitively vulnerable individuals. Oral Presentation at the 30<sup>th</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Denver, June 15, 2016.
208. McGuire, S., Witte, M., Müller, U., and **Basner, M.**: Association between noise-induced awakenings and awakenings during noise-free periods. Poster at the 30<sup>th</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Denver, June 11-15, 2016.
209. Rao, H., Ma, N., Fang, Z., Zhu, S., Hu, S., Shi, H., Spaeth, A., Goel, N., **Basner, M.**, Detre, J.A., and Dinges, D.F.: Effects of acute total sleep deprivation on resting and attending brain function. Poster at the 30<sup>th</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Denver, June 11-15, 2016.
210. Spaeth, A.M., Ma, N., Fanz, Z., Zhu, S., Hu, S., Goel, N., **Basner, M.**, Dinges, D.F., Detre, J.A., and Rao, H.: Slow-wave sleep duration predicts next-day resting hippocampal function. Poster at the 30<sup>th</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Denver, June 11-15, 2016.
211. Kast, J., Yu, Y., Cook, K., Moecker, R., **Basner, M.**, Barger, L., Derendorf, H., Wotring, V.: Rx metabolism: Inflight pharmacokinetic and pharmacodynamic responses to medications commonly used in spaceflight. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2017.
212. Laurie, S., **Basner, M.**, Lathan, C., Lovering, A., Lee, S., Martin, D., Stenger, M.: VaPER: Cerebrovascular, cognitive, and sleep assessment during 30 days of 6° head-down tilt bed rest in a 0.5% CO<sub>2</sub> environment. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2017.
213. Stahn, A., Dinges, D., Nasrini, J., McGuire, S., Hermosillo, E., Ecker, A., Kuehn, S., Werner, A., Brauns, K., Gunga, H., Moore, T., Roalf, D., Elliott, M., Prabhakaran, K., Gur, R., **Basner, M.**: Hybrid Training - a sensory stimulation countermeasure for long duration space

- exploration missions. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
214. Roalf, D., Prabhakaran, K., **Basner, M.**, Dinges, D., Stahn, A., Nasrini, J., McGuire, S., Hermsillo, E., Ecker, A., Johannes, B., Gerlach, D., Gunga, H., Melzer, T., Taylor, B., Elliott, M., Bilker, W., Gur, R.: Neurostructural, cognitive, and physiologic changes during a 1-year Antarctic winterover mission. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  215. Hermsillo, E., Dinges, D., McGuire, S., Nasrini, J., Ecker, A., Stahn, A., Moore, T., Gur, R., Johannes, B., **Basner, M.**: Increasing administration order flexibility of the Cognition test battery for spaceflight. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  216. Barger, L., Sullivan, J., Flynn-Evans, E., **Basner, M.**, Dinges, D., Seaton, K., Wang, W., Czeisler, C.: The impact of objectively measured sleep deficiency and circadian misalignment on performance during spaceflight. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  217. Dinges, D., Metaxas, D., Zhong, L., Yu, X., Wang, L., Dennis, L., Park-Chavar, S., Carlin, P., Ecker, A., Yu, A., Jones, C., **Basner, M.**: Optical computer recognition of stress, affect and fatigue in space flight. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  218. Dennis, L., **Basner, M.**, Strangman, G., Stuster, J., Mollicone, D., Roma, P., Williams, T., Gur, R., Stahn, A., Ecker, A., Nasrini, J., Mott, C., Dinges, D.: Psychological self-report data in HERA: A component of Behavioral Core Measures (Previously SBMT). Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  219. Moore, T., **Basner, M.**, Seelaus, K., Nasrini, J., Hermsillo, E., McGuire, S., Ecker, A., Roalf, D., Ruparel, K., Jackson, C., Port, A., Dinges, D., Gur, R.: Validation of the Cognition test battery for spaceflight in a Sample of STEM Educated Adults, with ongoing follow-up. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  220. Nasrini, J., Dinges, D., McGuire, S., Hermsillo, E., Ecker, A., Mollicone, D., Mott, C., Binsted, K., Caldwell, B., Moore, T., Gur, R., **Basner, M.**: Cognitive performance in long-duration Mars simulations at the Hawaii Space Exploration Analog and Simulation (HI-SEAS). Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  221. Nasrini, J., Dinges, D., McGuire, S., Hermsillo, E., Ecker, A., Moore, T., Gur, R., Stevens, B., Donoviel, D., Mulder, E., Bershad, E., **Basner, M.**: Effects of 12-degrees head-down tilt with and without elevated levels of CO<sub>2</sub> on cognitive performance: The Space-COT study. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  222. Binsted, K., **Basner, M.**, Bedwell, W., Bishop, S., Caldwell, B., Chang, D., Hunter, J., Kozlowski, S., Roma, P., Shiro, B., Wu, P.: Investigations at HI-SEAS into team function and performance on, and crew composition for, long duration exploration missions. Poster at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
  223. Dinges, D., **Basner, M.**, Mollicone, D., Ecker, A., Jones, C., Mott, C., Hyder, E., Di, Antonio, A., Dennis, L., Kan, K.: PVT on ISS: Reaction Self-Test (RST) from 6-month



- missions. Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
224. McGuire, S., Dinges, D., Ecker, A., Nasrini, J., Hermosillo, E., **Basner, M.**: Activity levels, sleep patterns, and proximity measurements in a Human Exploration Research Analog (HERA). Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
225. Dayal, D., Donoviel, D., Stevens, B., Hazel, R., Scott, R., Jesudasan, S., Ivkovic, V., Strangman, G., **Basner, M.**, Nasrini, J., Clark, J.: Cognitive study of tilt effects (CUTE Study). Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
226. Ryder, V., Scully, R., Alexander, D., Lam, C., Young, M., Satish, U., **Basner, M.**: Effects of acute exposures to carbon dioxide upon cognitive functions. Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
227. Stahn, A., Gunga, H., Chouker, A., Dinges, D., **Basner, M.**, Kuehn, S.: Long-duration Antarctic overwintering suppresses hippocampal plasticity, cognitive performance and key neurotrophins. Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
228. Dinges, D., **Basner, M.**, Goel, N., Rao, H., McGuire, S., Hermosillo, E., Dennis, L., Carlin, P., Trentalange, M., Lin, L., Mignot, E.: Markers of susceptibility to neurobehavioral decrements in spaceflight. Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2017.
229. Dinges D., **Basner, M.**, Strangman, G., Stuster, J., Mollicone, D., Roma, P., Gur, R., Stahn, A., Dennis, L., Ecker, A., Nasrini, J., Mott, C., Williams, T.: Behavioral Core Measures (Previously SBMT): Overview of data collection in HERA 30-day missions. Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 25, 2017.
230. **Basner, M.**, Dinges, D., McGuire, S., Nasrini, J., Hermosillo, E., Ecker, A., Mollicone, D., Mott, C., Port, A., Moore, T., Gur, R.: Update on the development and validation of the Cognition test battery for spaceflight. Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 25, 2017.
231. Williams, T., Landon, L., Vessey, W., Schneiderman, J., **Basner, M.**: Developing behavioral health and performance standard measures for the team, sleep, and behavioral medicine (BMed) risks. Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 25, 2017.
232. Bershada, E., Venkatasubba, Rao, C., Suarez, J., Sangi-Haghpeykar, H., Calvillo, E., Stevens, B., Damani, R., Clark, J., Kramer, L., Hasan, K., **Basner, M.**, Strangman, G., Stetefeld, H., Dohmen, C., Marshall-Goebel, K., Stern, C., Limper, U., Ritwegger, J., Mulder, E., Donoviel, D.: SPACE-COT: Studying the physiological and anatomical cerebral effects of carbon dioxide and head down tilt: An international collaborative project with the German Aerospace Center (DLR). Oral Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 25, 2017.
233. **Basner, M.**, Dinges, D., Nasrini, J., McGuire, S., Hermosillo, E., Ecker, A., Mollicone, D., Moore, T., Gur, R.: Performance on the Cognition battery in the TWINS study. Oral

Presentation at NASA Human Research Program Investigators' Workshop, Houston, TX, January 25, 2017.

234. McGuire, S., Witte, M., Kallarackal, A., **Basner, M.**: Pilot study examining the effects of aircraft noise on sleep in communities near Philadelphia International airport. Poster at the 31<sup>st</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Boston, MA, June 11-15, 2017.
235. Tkachenko, O., Taylor, A., **Basner, M.**, Dinges, D.: Impact of chronic partial sleep restriction on sleeping patterns beyond the laboratory. Poster at the 31<sup>st</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Boston, MA, June 11-15, 2017.
236. **Basner, M.**, McGuire, S.: WHO Environmental Noise Guidelines: systematic review of environmental noise and sleep. Poster at the 31<sup>st</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Boston, MA, June 11-15, 2017.
237. Boland, E., Rao, H., Dinges, D.F., Smith, R.V., Goel, N., Detre, J., **Basner, M.**, Sheline, Y., Thase, M.E., Gehrman, P.R.: Meta-analysis of the antidepressant effects of therapeutic sleep deprivation. Poster at the 31<sup>st</sup> Anniversary Meeting of the Associated Professional Sleep Societies, Boston, MA, June 11-15, 2017.
238. **Basner, M.**, McGuire, S.: Pilot study examining the effects of aircraft noise on sleep in communities near Philadelphia International airport. Presentation at the 12<sup>th</sup> IC BEN Congress on Noise as a Public Health Problem, Zurich, Switzerland, June 18-22, 2017.
239. McGuire, S., **Basner, M.**: WHO Environmental Noise Guidelines for the European Region: a systematic review on environmental noise and effects on sleep. Presentation at the 12<sup>th</sup> IC BEN Congress on Noise as a Public Health Problem, Zurich, Switzerland, June 18-22, 2017.
240. Müller, U., Elmenhorst, E.-M., Mendolia, F., Quehl, J., **Basner, M.**, McGuire, S., Aeschbach, D.: A comparison of the effects of night time air traffic noise on sleep at Cologne/Bonn and Frankfurt Airport after the night flight ban. Presentation at the 12<sup>th</sup> IC BEN Congress on Noise as a Public Health Problem, Zurich, Switzerland, June 18-22, 2017.
241. Elmenhorst, E.-M., Müller, U., Mendolia, F., Quehl, J., **Basner, M.**, Aeschbach, D.: Association between residents' attitude towards air traffic and their objective sleep quality at Frankfurt Airport. Presentation at the 12<sup>th</sup> IC BEN Congress on Noise as a Public Health Problem, Zurich, Switzerland, June 18-22, 2017.
242. Schäffer, B., Pieren, R., Mendolia, F., **Basner, M.**, Brink, M.: On the application of two statistical approaches to establish noise exposure-response relationships from repeated binary observations. Presentation at the 12<sup>th</sup> IC BEN Congress on Noise as a Public Health Problem, Zurich, Switzerland, June 18-22, 2017.
243. McGuire, S., Müller, U., Elmenhorst, E.-M., Mendolia, F., Aeschbach, D., **Basner, M.**: Cross-country comparison of aircraft noise-induced sleep disturbance. Poster at the 12<sup>th</sup> IC BEN Congress on Noise as a Public Health Problem, Zurich, Switzerland, June 18-22, 2017.
244. McGuire, S., **Basner, M.**: Development of a methodology for field studies on the effects of aircraft noise on sleep. Presentation at the 173<sup>rd</sup> Meeting of the Acoustical Society of America and the 8th Forum Acusticum, Boston, MA, June 25-29, 2017.

245. Münch, M., Wisniewski, S., Healey, B., Pattyn, N., **Basner, M.**, Kunz, D., Kawasaki, A.: Changes of the post-illumination pupil response, sleep and circadian rhythms during the Antarctic winter. Poster at the Annual Meeting of the European Biological Rhythms Society, Amsterdam, July 31, 2017.
246. Stahn, A., Brauns, K., Werner, A., **Basner, M.**, Dinges, D., Kuehn, S., Gunga, H.: Acute and chronic BDNF responses during 60 days of bed rest – Exercise as a countermeasure? Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 22, 2018.
247. Roalf, D., Prabhakaran, K., **Basner, M.**, Dinges, D., Stahn, A., Nasrini, J., McGuire, S., Hermsillo, E., Ecker, A., Johannes, B., Gerlach, D., Gunga, H., Melzer, T., Taylor, B., Elliott, M., Bilker, W., Gur, R.: Neurostructural, cognitive, and physiologic changes during a 1-year Antarctic winter-over mission. Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 22, 2018.
248. Dinges, D., **Basner, M.**, Strangman, G., Stuster, J., Roma, P., Mollicone, D., Gur, R., Stahn, A., Dennis, L., Ecker, A., Nasrini, J., Mott, C., Williams, T.: Standardized behavioral measures for detecting health risks during exploration (Behavioral Core Measures). Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 22, 2018.
249. **Basner, M.**, Dinges, D., Nasrini, J., Hermsillo, E., Ecker, A., Port, A., Moore, T., Gur, R.: Cognition battery research studies: Increasing Cognition administration order flexibility and longitudinal validation study in high-performing subjects. Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 22, 2018.
250. Nasrini, J., Dinges, D., Hermsillo, E., Stahn, A., Ecker, A., Mollicone, D., Mott, C., Moore, T., Gur, R., **Basner, M.**: Updates to the Cognition battery: Using normative performance data to improve stimulus selection and feedback display. Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 22, 2018.
251. Barger, L., Sullivan, J., Flynn-Evans, E., **Basner, M.**, Dinges, D., Seaton, K., Abercromby, A., Limardo, J., Wessel, J., Wang, W., Czeisler, C.: Using the NASA flight sleep database to evaluate the association of sleep to spaceflight environment and performance. Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2018.
252. Dinges, D., **Basner, M.**, Goel, N., Rao, H., Hermsillo, E., Dennis, L., Carlin, P., Trentalange, M., Lin, L., Mignot, E.: Markers of susceptibility to neurobehavioral decrements in space flight. Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2018.
253. Stahn, A., Brauns, K., Werner, A., Wolbers, T., Riemer, M., Craig, M., Dinges, D., **Basner, M.**, Gunga, H., Simone, K.: Hippocampal changes and spatial cognition associated with 60 days of bed rest with and without exercise as a countermeasure. Poster at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2018.
254. Stahn, A., Dinges, D., Nasrini, J., Hermsillo, E., Ecker, A., Werner, A., Brauns, K., Gunga, H., Moore, T., Kuehn, S., Gur, R., **Basner, M.**: Hybrid training – A sensory stimulation countermeasure for long duration space exploration missions. Poster at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2018.

255. Dinges, D., **Basner, M.**, Bilker, W., Gur, R., Hensch, T., Nindl, B., Roma, P., Stahn, A.: NSCOR for evaluating risk factors and biomarkers for adaptation for resilience to spaceflight: Emotional valence and social processes in ICC/ICE environments. Poster at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2018.
256. Binsted, K., **Basner, M.**, Bedwell, W., Caldwell, B., Hunter, J., Kozlowski, S., Roma, P., Schmer-Galunder, S.: HI-SEAS: Overview of results from the four, eight and twelve month missions. Poster at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 23, 2018.
257. Laurie, S., **Basner, M.**, Christian, K., Lathan, C., Lovering, A., Lee, S., Martin, D., Stenger, M.: VaPER: Bed rest in a 0.5% CO<sub>2</sub> environment. Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2018.
258. **Basner, M.**, Dinges, D., Nasrini, J., Hermosillo, E., Ecker, A., Mollicone, D., Moore, T., Gur, R.: Cognitive performance changes in the TWINS study. Oral Presentation at the NASA Human Research Program Investigators' Workshop, Houston, TX, January 24, 2018.
259. **Basner, M.**, Flynn-Evans, E., Lockley, S., Dinges, D.F.: Objective assessment tools for cognitive performance in space and on Earth. Presentation at the Annual Meeting of the Aerospace Medical Association, Dallas, TX, May 9, 2018.
260. Johnston, S.L., Flynn-Evans, E., Lockley, S., Blue, R.S., **Basner, M.**: A personalized space medicine approach to fatigue risk management services. Presentation at the Annual Meeting of the Aerospace Medical Association, Dallas, TX, May 9, 2018.
261. Jiang, Y., Chai, Y., Yang, F., Xu, S., **Basner, M.**, Detre, J.A., Dinges, D.F., Rao, H.: Effects of sleep deprivation and recovery sleep on human brain network organization. Presentation at the Annual Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, MD, June 3, 2018.
262. Yang, F., Xu, S., **Basner, M.**, Chai, Y., Dinges, D.F., Rao, H.: Sleep deprivation enlarges inter-stimulus interval on vigilant attention. Poster at the Annual Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, MD, June 3, 2018.
263. Tubbs, A., Perlis, M., Chakravorty, S., **Basner, M.**, Killgore, W., Gehrels, J., Alfonso-Miller, P., Grandner, M.: Does increased risk of suicide at night favor one method of suicide over another? Poster at the Annual Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, MD, June 4, 2018.
264. Tubbs, A., Perlis, M., Chakravorty, S., **Basner, M.**, Killgore, W., Gehrels, J., Alfonso-Miller, P., Grandner, M.: Seasonal changes in nocturnal suicide risk. ? Poster at the Annual Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, MD, June 4, 2018.
265. Stahn, A., Werner, A., Brauns, K., Dinges, D., **Basner, M.**, Gunga, H.C., Kühn S.: Structural Brain Plasticity During Isolation and Confinement - Does Gender Play a Role?. Talk at the 69<sup>th</sup> International Astronautical Congress, Bremen, Germany, October 1, 2018.
266. Stahn, A., Werner, A., Brauns, K., Dinges, D., **Basner, M.**, Gunga, H.C., Kühn S.: Brain Plasticity During Isolation and Confinement. Talk at the 69<sup>th</sup> International Astronautical Congress, Bremen, Germany, October 1, 2018.
267. Stahn, A., Brauns, K., Werner, A., Dinges, D., **Basner, M.**, Gunga, H.C., Kühn S.: Changes in BDNF in Spaceflight Analog Studies. Talk at the 69<sup>th</sup> International Astronautical Congress, Bremen, Germany, October 2, 2018.

268. Stahn, A., Werner, A., Brauns, K., Besnard, S., Denise, P., Hartley, T., Riecke, B., Wolbers, T., **Basner, M.**, Dinges, D., Gunga, H.C., Kühn S.: HypoCampus – Studying the Effects of Hippocampal Plasticity and Spatial Navigation in Spaceflight. Poster at the 69<sup>th</sup> International Astronautical Congress, Bremen, Germany, October 3, 2018.
269. Makedonas, G., Mehta, S., Krieger, S., Chouker, A., **Basner, M.**, Stahn, A., Pierson, D., Crucian, B.: Update: Antarctic winterover as an analog for spaceflight immune dysregulation. Poster at NASA Human Research Program Investigator Workshop, Galveston, TX, 1/22/2019
270. Mishra, T., Garrett-Bakelman, F., Meydan, C., Piening, B., Rizzardi, L., Charles, J., Kundrot, C., Scott, G., Bailey, S., **Basner, M.**, Feinberg, A., Lee, S., Mason, C., Mignot, E., Rana, B., Smith, S., Snyder, M., Turek, F.: The NASA Twins study: a multi-omic, molecular and physiological analysis of a year-long human spaceflight. Poster at NASA Human Research Program Investigator Workshop, Galveston, TX, 1/22/2019
271. Gur, R., Ruparel, K., DeStefano, L., Blake, J., Dinges, D., Stahn, A., Nasrini, J., Ecker, A., Roalf, D., **Basner, M.**: Task-dependent recruitment of brain networks in high-performing individuals during the Cognition test battery. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, 1/23/2019
272. Nasrini J. Dinges D. Stahn A. Ecker A. Moore T. Gur R. **Basner M.**: Changes in cognitive performance with month-long exposure to 0.5% atmospheric CO<sub>2</sub> and 6-degrees head-down tilt in the VAPER study. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 23, 2019.
273. Roalf D. **Basner M.** Prabhakaran K. Dinges D. Stahn A. Nasrini J. McGuire S. Hermsillo E. Ecker A. Johannes B. Gerlach D. Gunga H. Melzer T. Taylor B. Elliott M. Bilker W. Gur R.: Neurostructural, cognitive, and physiologic changes during a 1- year Antarctic winter-over mission: neuroimaging results. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 24, 2019.
274. **Basner M.** Dinges D. Stahn A. Nasrini J. Hermsillo E. Ecker A. Smith M. Johannes B. Healey B. van den Berg F. Gunga H. Pattyn N. Moore T. Roalf D. Gur R.: Changes in cognitive performance, sleep, and autonomic functions during a 1-year Antarctic winter-over mission. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 24, 2019.
275. Stahn A. Dinges D. Roalf D. Gur R. Katharina B. Werner A. Gunga H. Buchert R. Kühn S. **Basner M.**: Hyper.Campus – effects of artificial gravity on structural and functional brain plasticity during head-down tilt bed rest. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 24, 2019.
276. Wusk G. **Basner M.** Schneiderman J. Nasrini J. Baskin P. Dinges D. Roma P.: Individual differences in cognitive performance under chronic partial sleep restriction in isolation and confinement. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 24, 2019.
277. Dinges D. **Basner M.** Stahn A. Roma P. Hensch T. Nindl B. Flanagan S. Martin B. Gur R. Cordoza M. Bilker W.: NSCOR for evaluating risk factors and biomarkers for adaptation and resilience to spaceflight: emotional valence and social processes in ICC/ICE environments. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 24, 2019.

278. Dinges D. **Basner M.** Strangman G. Stuster J. Roma P. Mollicone D. Gur R. Stahn A. Dennis L. Ecker A. Nasrini J. Mott C.: Standardized behavioral measures for detecting behavioral health risks during exploration (behavioral core measures). Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 24, 2019.
279. Hickman, L.B., Shortal, B.P., Mak-McCully, R.A., Wang, W., Lin, N., Kelz, M., **Basner, M.**, Mashour, G., Avidan, M.S., Proekt, A., Palanca, B.J.A.: Duration of anesthetic-induced electroencephalographic suppression does not correlate with change in cognitive task performance after emergence. Poster at the 2019 Meeting of the International Anesthesia Research Society, Montreal, Canada, May 19, 2019.
280. Galli, O., Gehrman, P., Rao, H., **Basner, M.**, Thase, M., Goel, N., Sheline, Y., Detre, J., Dinges, D.F.: Healthy and depressed individuals do not differ in baseline PVT performance. Poster at the 33<sup>rd</sup> annual meeting of the Associated Professional Sleep Societies, San Antonio, TX, June 10-12, 2019.
281. Smith, M.G., Younes, M., Aeschbach, D., Müller, U., **Basner, M.**: Planes, trains and automobiles: traffic noise and its impact on sleep depth measured by odds ratio product. Poster at the 33<sup>rd</sup> annual meeting of the Associated Professional Sleep Societies, San Antonio, TX, June 10-12, 2019.
282. Smith, M.G., Rocha, S., Witte, M., **Basner, M.**: Self-reported sleep disturbance by aircraft noise around Atlanta airport. Poster at the 33<sup>rd</sup> annual meeting of the Associated Professional Sleep Societies, San Antonio, TX, June 10-12, 2019.
283. Olivier, K, Perlis, K.L., Troxel, W., **Basner, M.**, Chakravorty, S., Tubbs, A., Owens, J., Jean-Louis, G., Killgore, W.D.S., Warlick, C., Alfonso-Miller, P., Grandner, M.A.: Influence of likely nocturnal wakefulness on 24-hour patterns of violent crime in adults and juveniles. Poster at the 33<sup>rd</sup> annual meeting of the Associated Professional Sleep Societies, San Antonio, TX, June 10-12, 2019.
284. Goldschmied, J.R., Rao, H., Dinges, D.F., Goel, N., Detre, J.A., **Basner, M.**, Sheline, Y.I., Thase, M.E., Gehrman, P.R.: Recovery sleep significantly decreases BDNF in major depression following therapeutic sleep deprivation. Poster at the 33<sup>rd</sup> annual meeting of the Associated Professional Sleep Societies, San Antonio, TX, June 10-12, 2019.
285. **Basner, M.**, Smith, M.G., Rocha, S., Witte, M.: Pilot field study on the effects of aircraft noise on sleep around Atlanta International Airport. Presentation at the 23<sup>rd</sup> International Congress on Acoustics, Aachen, Germany, September 11, 2019.
286. Smith, M.G., Younes, M., Aeschbach, D., Müller, U., **Basner, M.**: Traffic noise and its impact on sleep depth measured by the Odds Ratio Product. Presentation at the 23<sup>rd</sup> International Congress on Acoustics, Aachen, Germany, September 11, 2019.
287. **Basner, M.**, Dinges, D.F., Stahn, A.C., Nasrini, J., Hermosillo, E., Ecker, A.J., Smith, M.G., Johannes, B., Healey, B., van den Berg, F.P., Gunga, H.C., Pattyne, N., Moore, T.M., Roalf, D., Gur, R.C.: Changes in sleep-wake rhythms and crew cohesion during two 1-year Antarctic winter-over missions. Presentation at the 70<sup>th</sup> International Astronautical Congress (IAC), Washington, D.C., October 22, 2019.
288. Stahn, A.C., Brauns, K., Werner, A., Wolbers, T., Craig, M., Dinges, D.F., **Basner, M.**, Gunga, H.-C., Kühn, S.: 60 days of bed rest impair Hippocampal plasticity and spatial

- cognition. Presentation at the 70<sup>th</sup> International Astronautical Congress (IAC), Washington, D.C., October 22, 2019.
289. Dinges, D.F., **Basner, M.**, Kaizi-Lutu, M., Mange, A., Stahn, A.C., Tononi, G., Riedner, B., Garcia-Molina, G., Jones, C.W.: Evaluation of smartsleep technology for improving the efficiency and restorative quality of sleep in healthy adults in order to mitigate cognitive performance deficits due to sleep restriction and emergency awakenings. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 27, 2020.
290. Riedner, B.A., Garcia-Molina, G., Flaherty, B.L., Jones, S.G., **Basner, M.**, Dinges, D.F., Tononi, G.: OASIS: optimizing auditory stimulation to improve cognitive performance. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 27, 2020.
291. Stahn, A., Roalf, D., Gur, R.C., Brauns, K., Werner, A., Gunga, H.C., Dinges, D.F., Kühn, S., **Basner, M.**: Hyper.Campus – Effects of artificial gravity on structural and functional brain plasticity during head-down tilt bed rest. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 27, 2020.
292. **Basner, M.**, Dinges, D.F., Stahn, A., Smith, M., Jones, C.W., Romoser, A., Williams, E., Ryder, V., Aeschbach, D., Tu, D., Shou, H.: Advanced algorithms for the prediction of adverse cognitive and behavioral conditions in space. Presentation at NASA Human Research Program Investigator Workshop, Galveston, TX, January 27, 2020.
293. **Basner, M.**, Stahn, A., Dinges, D.F., Smith, M., Ecker, A.J., Howard, K., Roma, P., Arias, D., Moore, T.M., Roalf, D., Gur, R.C.: Temporal nature of cognitive and visuospatial brain domain changes during long-duration low-earth orbit missions: neurostructural and cognitive changes (Project A). Poster at NASA Human Research Program Investigator Workshop, Galveston, TX, January 27, 2020.
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295. Mehta, S., Chouker, A., Krieger, S., Makedonas, G., Rooney, B., Nelman-Gonzalez, M., **Basner, M.**, Stahn, A.C., Pierson, P., Crucian, B.: Heterogeneity of base environment influences fidelity of Antarctica winterover as a spaceflight analog. Poster at NASA Human Research Program Investigator Workshop, Galveston, TX, January 27, 2020.
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