

**EMORY UNIVERSITY SCHOOL OF MEDICINE
STANDARD CURRICULUM VITAE**

1. Name: **Nigel Paul Pedersen**
2. Office Address: **101 Woodruff Circle, WMB 6107**
Telephone: **(404) 778-5934**
3. E-mail Address: **npeders@emory.edu**
4. Citizenship: **US Citizen; Australian Citizen**
5. Current Titles and Affiliations:
 - a. Academic Appointments:
 - i. Primary Appointments:
Assistant Professor of Neurology, Emory University, 5/1/2016 – present
 - b. Clinical Appointments:
Attending Neurologist, Epilepsy Service, Department of Neurology, Emory Clinic/Emory University Hospital, 5/2016 – present
 - c. Other Administrative Appointments:
 - i. *Principal Investigator, Epilepsy and Systems Neurobiology Laboratory, 5/2016 – present*
 - ii. *Full Member, Program in Neuroscience, Emory University, 2017 --*
6. Previous Academic and Professional Appointments:
Research Collaborator, Beth Israel Deaconess Medical Center, 4/2016 – present
Instructor in Neurology, Harvard Medical School, 7/2015 – 4/2016
Clinical Fellow, Harvard Medical School, 6/2009 – 6/2013, 7/2014 – 6/2015
Research Fellow, Harvard Medical School, 12/2007 – 6/2009, 7/2013 – 6/2014
7. Previous Administrative and/or Clinical Appointments:
Attending Neurologist, Epilepsy Service, Beth Israel Deaconess Medical Center
Clinical Neurophysiology Fellow, Massachusetts General Hospital, 7/2014 – 6/2015
Epilepsy and Neurobiology Fellow, Massachusetts General Hospital, 7/2013 – 6/2014
Chief Resident, Neurology, Beth Israel Deaconess Medical Center, 7/2012 – 6/2013
Resident in Neurology, Beth Israel Deaconess Medical Center and (secondarily) Boston Children's Hospital, 7/2010 – 6/2013
Intern in Internal Medicine, Beth Israel Deaconess Medical Center, 6/2009 – 6/2010
8. Licensures/Boards:
Massachusetts – Limited 2009-2013
Massachusetts – Full 2013 – 2016
Georgia – Full 2016 – present
9. Specialty Boards:
American Board of Psychiatry and Neurology – Neurology, 2013
American Board of Psychiatry and Neurology – Clinical Neurophysiology, 2015
American Board of Psychiatry and Neurology – Epilepsy 2016

10. Education:

3/1997-12/1999	B.Sc.	Cognitive Science	Flinders University
1/2000-12/2000	B.Sc. (Hons I)	Neuroscience	Flinders University
2/2001-11/2007	M.B.,B.S. (Hons)	Medicine and Surgery	University of Sydney

11. Postgraduate Training:

12/2007-6/2009	Research Fellow, Neurology/Sleep	BIDMC	Prof. C. B. Saper
6/2009-6/2010	Intern, Medicine	BIDMC	Prof. E. Reynolds
7/2010-6/2013	Resident, Neurology	BIDMC	Prof. F. Drislane
7/2013-6/2014	Epilepsy and Neurobiology	MGH	Prof. A. J. Cole
7/2013-6/2015	Research Fellow, Neurology	BIDMC	Prof. C. B. Saper
7/2014-6/2015	Clinical Neurophysiology	MGH	Prof. A. J. Cole

12. Continuing Professional Development Activities:

Post-Graduate Course in Neuropathology, University of Sydney, 2003
 Course in Pain Management, Royal North Shore Hospital, Sydney, 2006
 BIDMC Academy of Medical Educators, 2011 – 2013
 J. Kiffin Penry Residents Epilepsy Program, 2012
 NIH NINDS, R25 Fellow, 2012 – 2014
 American Academy of Neurology, Clinical Research Training Fellow, 2015 – (2017)
 American Epilepsy Society Fellow, 2014
 Clinician-Scientist Development Symposia for American Neurological Association, American Academy of Neurology, 2012 – present
 Harvard Medical School, Fundamentals of Clinical and Translational Research course, 2016
 Gordon Conference – Mechanisms of Epilepsy and Neuronal Synchronization, 8/2016
 Children's Healthcare of Atlanta/Emory StereoEEG Course, 9/2016
 Cleveland Clinic StereoEEG Course, 10/2016, 9/2017

13. Editor and Peer Review Activities:

- a. Editorial Responsibilities
 - i. Guest Editor - Neuroscience Letters forthcoming issue - Sleep, Wake and Consciousness
 - ii. Editor for Epilepsy Currents (1/2018 -)
- b. Manuscripts (Peer Reviewer):
 - Annals of Neurology
 - Sleep
 - Clinical Pediatrics
 - Journal of Physiology
 - Neurosurgery
 - Experimental Neurology

14. Honors and Awards:

- 1-3. Chancellor's Letter of Commendation, Flinders University, 1997, 1998, 2000
4. David Overdoff Student Seminar Prize, Flinders Centre for Neuroscience, 2000

5. *First Class Honours in Neuroscience (by thesis), Flinders University, 2001*
 6. *Sir Grafton Eliot-Smith Student Research Award, Australian Neuroscience Society, 2001*
 7. *Australian Course in Advanced Neuroscience (competitive selection), 2005*
 8. *Honours in Medicine (by thesis), University of Sydney, 2007*
 9. *Harvard Medical School Outstanding Teacher Award, 2011*
 - 10-11. *BIDMC Resident and Fellows Poster Prize, 2011, 2013*
 12. *Michael Ronthal Award for Resident Teaching, BIDMC, 2013*
 13. *Basic Science Prize, Boston Society of Neurology and Psychiatry, 2013*
- 15. Society Memberships:**
- | | | |
|----------------|---|-----------------------|
| 2000 – 2007 | <i>Australian Neuroscience Society</i> | <i>Student Member</i> |
| 2004 – 2007 | <i>International Brain Research Organization</i> | <i>Member</i> |
| 2007 – present | <i>Society of Neuroscience</i> | <i>Member</i> |
| 2008 – present | <i>Sleep Research Society</i> | <i>Member</i> |
| 2010 – present | <i>American Academy of Neurology</i> | <i>Member</i> |
| 2011 – 2013 | <i>BIDMC Academy of Medical Educators</i> | <i>Member</i> |
| 2013 – present | <i>American Epilepsy Society</i> | <i>Member</i> |
| 2013 – present | <i>American Clinical Neurophysiology Society</i> | <i>Member</i> |
| 2013 – present | <i>International League Against Epilepsy</i> | <i>Member</i> |
| 2013 – 2016 | <i>Boston Society of Neurology and Psychiatry</i> | <i>Member</i> |
| 2013 – 2014 | <i>Cajal Club</i> | <i>Member</i> |
| 2013 – 2015 | <i>Boston Epilepsy Society</i> | <i>Member</i> |
| 2015 – present | <i>American Neurological Association</i> | <i>Member</i> |
- 16. Clinical Service Contributions:**
- *Introduction of iPads on the ward service for Neurology at BIDMC, 2011*
 - *Editing of the Resident Handbook for use on the iPad, 2011*
 - *Clinical work-flow improvement – working with MA's, 2013 – 2014 – resulted in improved room utilization (to about 80%; with Dr. D. Hoch, MGH).*
 - *Development of stimulation practices for SEEG-based human intracranial stimulation*
- 17. Community Outreach:**
- a. **Media Appearances:**
 - Epilepsy Foundation Education Video, 2012*
 - American Neurological Association – video about my research for their website, 2014*
- 18. Formal Teaching:**
- a. **Medical Student Teaching:**
 1. *Harvard Medical School “Human Nervous System and Behavior” (Neuroanatomy) (HMSII students), 2013, 2014 (about 50 hours/year)*
 2. *Society Head, Peabody, for HMS Neuroanatomy (HMSII students), 2015 (about 50 hours)*
 3. *Ad hoc teaching of medical students rotating on the medicine and neurology services, BIDMC, 2009-2015*
 4. *Neuroanatomy, Emory Medical Students, 2016 --*
 - b. **Undergraduate Teaching:**
 1. *Information Technology, Flinders University Department of Informatics and Engineering, 1999*
 2. *Computer Programming in Java, Flinders University Department of Informatics and Engineering, 1999*
 - c. **Graduate Programs:**
 - i. **Residency Programs:**
 - ‘Professors Rounds’ for residents (numerous times, 2015-2016) – conference to teach*

localization and neuroanatomy to neurology residents
"Epilepsy and Neurophysiological Contributions to Localization in Neurology", 10/2015
'Professors Rounds' for Emory Neurology Residents, 2016 --
'Epilepsy and Localization', Emory Resident Lecture, 2016 --

- ii. Fellowship Programs:
"Neuronal Circuits in Epilepsy", BIDMC Epilepsy Faculty and Fellows, 11/2015
"Basic and Translational Technologies in Epilepsy", Emory Clinical Neurophysiology and Epilepsy Fellows, 2016 --

19. Supervisory Teaching:

- a. Other:
Undergraduate then Research Assistant – Joshua Wang – Harvard College student, then remaining to work in my lab for one year prior to starting medical school.
- b. Undergraduates
 - i. Naomie Gutekunst - Emory Neuroscience (lab member)
 - ii. Katherine Zhu - Georgia Tech BME student (lab member)
- c. Residents
 - i. Adam Dickey MD/PHD - Neurology Resident (lab member)
- d. Graduate Students
 - i. Thesis Committee service
 - 1. Christopher Sinon (Emory Neuroscience PhD program)
 - 2. Sherod Haynes (Emory Neuroscience PhD program)
 - 3. Anthony Corsten (Georgia Tech masters student)
 - 4. Kari Mattison (Emory Genetics PhD student)

20. Lectureships, Seminar Invitations, and Visiting Professorships:

- a. Regional:
 Boston Epilepsy Society, "Responsive Neurostimulation of the Thalamus", Boston, 11/2015
- b. Institutional:
Systems Neuroscience 'Lab Meeting' (involves numerous labs and formal presentations of ~90 mins), numerous presentations, about annually, from 2007-2016, including "Rapid Eye Movement – Circuits Underlying Rapid Eye Movements of REM Sleep", "Waking to CO2", "The Supramammillary Area Promotes Wakefulness".
"A Novel Population of Hypothalamic Wake-Promoting Neurons", NINDS R25 Institutional Seminar, Boston, 12/2012
"A Novel Population of Hypothalamic Wake-Promoting Neurons", Resident Research Seminar Series, BIDMC Neurology Department, Boston, 5/2013
"Posterior Hypothalamic Contributions to the Ascending Arousal System", Epilepsy Research Seminar, Massachusetts General Hospital, Boston, 11/2013
"Hypothalamic Contributions to Wakefulness" Multiple Laboratory Program Project Grant Seminar Series, Neurology (BIDMC), Psychiatry (BIDMC and Brockton VA), Pulmonology (BWH), Sleep (Longwood), presentation at BIDMC. March 27th, 2014
"The Ascending Arousal Network", Massachusetts General Hospital Neurointensive Care Seminar, Boston, 5/2014.
"Wakefulness and Sleep", Massachusetts General Hospital Sleep Grand Rounds, Boston, 8/2014
"Thalamic Stimulation in Epilepsy", Massachusetts General Hospital Epilepsy Surgery Conference, Boston, 8/2014
"The Ascending Arousal System – an update and hypothalamic contributions", Yale Epilepsy Research Seminar, New Haven, 2/2015
"The Surgical Treatment of Generalized Epilepsies", Massachusetts General Hospital Epilepsy Surgery Conference, Boston, 11/2015

"The Ascending Arousal System and Epilepsy", Emory Epilepsy Seminar, Atlanta, 11/2015
"Hypothalamic Contributions to Wakefulness and Forebrain Rhythms", BIDMC Neurology Faculty Seminar, Boston, 12/2015

21. Invitations to National/International, Regional, and Institutional Conferences:

a. National and International:

American Neurological Association Annual Meeting, invited talk "Glutamatergic Supramammillary Neurons Support Wakefulness", New Orleans, 10/2013.
Sleep Meeting, invited talk in Symposium (Dissection of Neural Circuitry Regulating Sleep-Wake using Genetically Engineered Systems), "The Ascending Arousal Network, Hypothalamic Contributions", Minneapolis, 6/2014.
Center for Sudden Unexpected Death in Epilepsy (SUDEP) Research (Baylor-based national interest group), invited talk, "Subthalamic Arousal Pathways", Boston, 4/2016.

b. Regional:

"Subcortical Control of Cortical Rhythms", Yale Epilepsy Retreat (includes other institutions in CT and some visitors from Harvard and Emory), New Haven, 11/2015

22. Abstract Presentations at National/International, Regional, and Institutional Conferences (updated 2016):

a. National and International:

1. **Blessing WW & Pedersen NP. Cutaneous vasoconstriction contributes to hyperthermia induced by Ecstasy (3,4- methylenedioxymethamphetamine, MDMA) in unrestrained conscious rabbits. Proceedings for the 17th Congress of Neurology. London, UK, 2001.*
2. **Blessing WW & Pedersen NP. Clozapine, an atypical antipsychotic reverses cutaneous vasoconstriction and hyperthermia induced by MDMA ('Ecstasy') in conscious rabbits. Proceedings of the American Academy of Neurology. Philadelphia, Pennsylvania, USA, 2001.*
3. **Blessing WW, Pedersen NP & Nalivaiko E. Clozapine reverses cutaneous vasoconstriction induced by ecstasy (MDMA), probably by an action at a spinal level. Proceedings of the Society for Neuroscience. San Diego, California, USA, 2001.*
4. **Hacker J, Pedersen NP, Chieng BCH, Keay KA & Christie MJ. Co-localised Fos and glutamic acid decarboxylase expression in the periaqueductal grey during morphine withdrawal. Proceedings of the World Pain Congress, Sydney, 2005.*
5. **Pedersen NP, Vaughan CW & Christie MJ. All spinally-projecting neurons of the mouse rostral ventromedial medulla (RVM) are inhibited by μ opioids. Proceedings of the Society for Neuroscience, Washington DC, USA, 2005.*
6. **Pedersen NP, Vaughan CW & Christie MJ. Opioid actions on GABA-containing neurons of the mouse raphe magnus. Proceedings of the World Pain Congress, Sydney, 2005.*
7. **Hacker J, Bagley EE, Pedersen NP, Chieng BCH, McNally GP, Christie MJ. Enhanced activity of the GAT-1 GABA transporter mediates opioid withdrawal behavior in midbrain. Society for Neuroscience, Atlanta, Georgia USA, 2006.*
8. **Pedersen NP, Fuller PM, Wood DA, Sherman DS, Saper CB, Lu J. Genetic dissection of brainstem circuitry regulating REM atonia. World Federation of Sleep Research and Sleep Medicine Societies, Cairns (Australia), September 2007.*
9. **Fuller PM, Gompf HS, Pedersen NP, Saper CB, Lu J. Hypersomnia following genetic deletion of glutamate from posterior lateral hypothalamic neurons. World Federation of Sleep Research and Sleep Medicine Societies, Cairns (Australia), September 2007.*
10. **Pedersen NP, Anacleit C, Vetrivelan R, Saper CB, Lu J. The retroabducens region is necessary for rapid eye movement (REM) during REM sleep in the rat. Society for Neuroscience, Washington D.C., Nov. 2008.*
11. **Anacleit C, Pedersen NP, Lu J. Lesion of the ventromedial medulla decreases phasic*

- masseter activity during REM sleep. Society for Neuroscience, 2008.
12. *Pedersen NP, Kaur S, Hur EE, Saper CB, Chamberlin NL. Neural pathways underlying awakening from sleep during hypercapnia. Society for Neuroscience, Chicago, 2009.
 13. *Pedersen NP, Anaclet C, Saper CB, Lu J. Circuitry underlying rapid eye movements during REM sleep in the rat. APSS Meeting, Seattle, 2009.
 14. *Kaur S, Pedersen NP, Hur EE, Chamberlin NL, Saper CB. Neural pathways underlying awakening from sleep during hypercapnia. Society for Neuroscience, San Diego, 2010.
 15. *Kaur S, Yokota S, Pedersen NP, Hur EE, Chamberlin NC, Saper CB. Role of glutamatergic neurons in the parabrachial in regulation of spontaneous sleep and hypercapnia-induced arousals. Poster Presentation. Society for Neuroscience, Washington, D.C., 2011.
 16. *Kaur S, Pedersen NP, Fuller PM, Chamberlin NL, Saper CB. Selective deletion of glutamatergic neurons in the lateral parabrachial area prolongs arousal latency to hypercapnia. Society for Neuroscience, New Orleans, October 2012
 17. *Kaur S, Yokota S, Pedersen NP, Hur EE, Chamberlin NC, Saper CB. Role of glutamatergic neurons in the parabrachial in regulation of spontaneous sleep and hypercapnia-induced arousals. Poster Presentation. Sleep, Minneapolis, June 2012
 18. *Pedersen NP, Fuller PM, Saper CB. Supramammillary region glutamatergic neurons promote fast EEG activity and wakefulness. American Epilepsy Society, Washington, DC, 2013.
 19. *Pedersen NP, Fuller PM, Saper CB. Supramammillary region glutamatergic neurons promote fast EEG activity and wakefulness. American Epilepsy Society, Washington, DC, 2013.
 20. *Pedersen NP, Saper CB, Fuller PM. Glutamate-Containing Neurons of the Posterior Lateral and Supramammillary Hypothalamus Support Wakefulness. Society for Neuroscience, San Diego, 2013.
 21. *Pedersen NP, Fuller PM, Saper CB. Glutamate-Containing Neurons of the Posterior Lateral and Supramammillary Hypothalamus Support Wakefulness. American Neurological Association Meeting, New Orleans, 2013
 22. *Pedersen NP, Lok E, Wong ET. Decreased Cerebrospinal Fluid (CSF) Hypocretin 1 (Orexin A) Levels after Whole Brain Radiotherapy: A Candidate Biomarker for Radiation Encephalopathy. American Academy of Neurology, San Diego, March 2013
 23. *Pedersen NP, Ferrari L, Wang JL, Abbott SB, Arrigoni E, Saper CB, Fuller PM. Supramammillary hypothalamic neurons that co-release GABA and glutamate promote wakefulness and hippocampal theta rhythm. American Epilepsy Society, Seattle, 2014
 24. *Wang JL, Alexander C, Saper CB, Fuller PM, Pedersen NP. Activation of the supramammillary nucleus causes prolonged wakefulness without sleep rebound. Sleep, 2015, and the American Neurological Association, Chicago, 2015.
 25. *Pedersen NP, Saper CB, Fuller PM. Activation of NOS1 neurons of the caudal hypothalamus produces prolonged wakefulness, Society for Neuroscience, forthcoming 2016.

b. Regional:

1. *Pedersen NP & Blessing WW. The effect of MDMA (3,4-methylenedioxymethamphetamine, 'Ecstasy') on body temperature and cutaneous blood flow in conscious rabbits. Proceedings of the Australian Neuroscience Society, Brisbane, 2001.
2. *Pedersen NP, Li KM, Clemens KJ, Cornish JL, McGregor IS & Christie MJ. Spinal cord 5-HT concentration is not significantly affected by N-methyl-3,4-methylenedioxyamphetamine (MDMA, Ecstasy). Proceedings of the Australian Neuroscience Society, Adelaide, 2003.
3. *Pedersen NP & Christie MJ. Met-enkephalin does not produce post-synaptic potassium currents in a subpopulation of GABAergic ventrolateral periaqueductal neurones in a transgenic glutamic acid decarboxylase-GFP mouse. Proceedings of the Australian Neuroscience Society, Melbourne, 2004.
4. *Pedersen NP, Vaughan CW & Christie MJ. Opioid responsiveness of GABAergic neurons of the mouse rostral ventromedial medulla. Proceedings of the Australian Neuroscience Society, Perth, 2005.
5. *Hacker J, Pedersen NP, Chieng BCH, Keay KA & Christie MJ. Co-localised Fos and glutamic acid decarboxylase expression in the periaqueductal grey during opioid withdrawal. Proceedings of the Australian Neuroscience Society, Perth, 2005.
6. *Hacker J, Bagley EE, Pedersen NP, McNally GP & Christie MJ. Enhanced activity of the GAT-

- 1 GABA transporter mediates opioid withdrawal behaviour in midbrain. *Proceedings of the Australian Neuroscience Society, Sydney, 2006.*
7. *Pedersen NP, Vaughan CW & Christie MJ. Opioids inhibit GABA-containing mouse rostral ventromedial medulla (RVM) neurons that project to the spinal dorsal horn. *Proceedings of the Australian Neuroscience Society, Sydney, 2006.*
8. *Pedersen NP, Fuller PM, Saper CB. Glutamate-Containing Neurons of the Posterior Lateral and Supramammillary Hypothalamus Support Wakefulness. *Cobb Assembly, Boston Society of Neurology and Psychiatry, Boston, 2013*

c. Institutional:

1. *Pedersen NP & Christie MJ. Distribution of GABAergic neurones in the periaqueductal grey of a transgenic GAD67-GFP mouse. *Royal North Shore Hospital/UTS Biomedical Science Conference 2003.*
2. *Pedersen NP, Vaughan CW, & Christie MJ. Opioid responsiveness of neurons within regions of the medulla that modulate pain transmission. *Fifth University of Sydney College of Health Sciences Research Conference, Lura, NSW, 2004.*
3. *Pedersen NP, Anaclet C, Lu J, Saper CB. Brainstem Circuitry Underlying REM Sleep in Rats. *Beth Israel Deaconess Medical Center Residents and Fellows Research Day. (Award for best basic science poster) 2011.*
4. *Pedersen NP, Fuller PM, Saper CB. Glutamate-Containing Neurons of the Posterior Lateral and Supramammillary Hypothalamus Support Wakefulness. *BIDMC Resident and Fellows Poster session (Award for best basic science poster), Boston, 2013*

23. Research Focus:

My research is devoted to two major and related lines of fundamental investigation: Firstly, understanding the mechanism by which sleep- and wake-promoting nuclei affect cortical rhythms and behavior. Secondly, how components of the sleep-wake system can be used to increase seizure threshold, while leaving sleep and wake essentially intact. Overall, I take a strong neuroanatomical approach to systems neuroscience in both research and clinical practice.

24. Grant Support:

[Investigator status (P.I., Co-P.I.), source, title, award type, direct costs, year(s)]

a. Active Support:

- i. Neurology Departmental Start-Up Support/Woodruff Foundation

b. Previous Support:

Principal Investigator, American Academy of Neurology/American Brain Foundation, The Mammillary Area in Arousal and Epilepsy, Fellowship Award, \$130k over two years (7/2015 – 6/2017). Mentor Prof. Ray Dingledine (Emory) and prior mentors Profs. Clifford Saper and Donald Schomer (Harvard).

Sub-Award PI, NIH NINDS, Genetic Manipulation of the Hypothalamic Arousal System, Training Grant for Neurology and Neurosurgery Residents, R25NS070682, \$110k over two years.

Trainee, Australian Federal National Health and Medical Research Council, Characterization of Spinally-Projecting Rostral Ventromedial Medullary Neurons, ~A\$55k

Institutional Support from (1) Flinders Medical Foundation (Summer Scholarship), (2) Flinders Human Physiology (supplemental support for Honours year), (3) Sydney University Pharmacology Department (Supplemental Support for time as research during medical school).

25. Bibliography:

- a. Published and Accepted Research Articles (clinical, basic science, other) in Refereed Journals:
 1. Garcia JN, **Pedersen NP**, Nalivaiko E, Blessing WW (2001). Tail artery blood flow measured by chronically implanted Doppler ultrasonic probes in unrestrained conscious rats. *Journal of Neuroscience Methods*. 104(2):209-13.
 2. **Pedersen NP**, Blessing WW (2001). Cutaneous vasoconstriction contributes to hyperthermia induced by 3,4-methylenedioxymethamphetamine (ecstasy) in conscious rabbits. *Journal of Neuroscience*. 21(21):8648-54.
 3. Blessing WW, Seaman B, **Pedersen NP**, Ootsuka Y (2003). Clozapine reverses hyperthermia and sympathetically mediated cutaneous vasoconstriction induced by 3,4-methylenedioxymethamphetamine (ecstasy) in rabbits and rats. *Journal of Neuroscience*. 23(15):6385-91.
 4. Hacker J, **Pedersen NP**, Chieng BCH, Keay KA, Christie MJ (2006). Enhanced fos expression in glutamic acid decarboxylase immunoreactive neurons of the mouse periaqueductal grey during opioid withdrawal. *Neuroscience* 137(4):389-96.
 5. **Pedersen NP**, Fuller PM, Lu J, Saper CB (2008). In the flicker of an eye. *Journal of Physiology*, 586 (14): 3305-3306. PMID: PMC2538807
 6. Baumann CR, Clark EL, **Pedersen NP**, Hecht JL, Scammell TE (2008). Do enteric neurons make hypocretin? *Regulatory Peptides*, 147(1-3):1-3. PMID: PMC2276606
 7. Anacleit C, **Pedersen NP**, Fuller PM, Lu J (2010). Brainstem circuitry regulating phasic activation of trigeminal motoneurons during REM sleep. *PLoS One*. 5(1) : e8788. PMID: PMC280833
 8. Gompf HS, Mathai C, Fuller PM, Wood DA, **Pedersen NP**, Saper CB, Lu J (2010). Locus ceruleus and anterior cingulate cortex sustain wakefulness in a novel environment. *Journal of Neurosci*. 2010 Oct 27;30(43): 14543-51. PMID: PMC2989851
 9. Fuller P, Sherman D, **Pedersen NP**, Saper CB, Lu J (2011). Reassessment of the structural basis of the ascending arousal system. *Journal of Comparative Neurology*. 2011 Apr 1;519(5): 933-56.
 10. **Pedersen NP**, Vaughan CW, Christie MJ (2011). Opioid receptor modulation of GABAergic and serotonergic spinally-projecting neurons of the rostral ventromedial medulla in mice. *Journal of Neurophysiology*. Aug;106(2): 731-40.
 11. Kaur S, **Pedersen NP**, Yokota S, Hur EE, Fuller PM, Lazarus M, Chamberlin NL, Saper CB (2013). Glutamatergic signaling from the parabrachial nucleus plays a critical role in hypercapnic arousal. *Journal of Neuroscience*. May 1;33(18):7627-40.
 12. Mafi JN, Edwards ST, **Pedersen NP**, Davis RB, McCarthy EP, Landon BE (2015). Trends in the Ambulatory Management of Headache: Analysis of NAMCS and NHAMCS Data 1999-2010. *J Gen Intern Med*. 2015 Jan 8. PMID: 25567755
 13. Mafi JN, Edwards ST, **Pedersen NP**, Landon BE (2015). Trends in the Management of Headache. *J Gen Intern Med*. 2015 Feb 14. PMID: 25680354
 14. Anacleit C, **Pedersen NP**, Ferrari L, Venner A, Bass CE, Arrigoni E & Fuller PM (2015). Basal forebrain control of wakefulness and cortical rhythms. *Nature Communications*. 2015 November 4; 6: 8744, PMID: 26524973
 15. **Pedersen NP**, Ferrari L, Venner A, Wang JL, Abbott SBG, Vujovic N, Arrigoni E, Saper CB, Fuller PM (2017). Supramammillary glutamate neurons are a key node of the arousal system. *Nature Communications*. 2017 November 10; 8(1): 1405, PMID 29123082
 16. Gross RE, Stern MA, Willie JT, Fasano RE, Saindane AM, Soares BP, **Pedersen NP**, Drane DL. Stereotactic laser amygdalohippocampotomy for mesial temporal lobe epilepsy. *Ann Neurol*. 2018 Feb 8;PubMed PMID: 29420840
- b. Manuscripts Submitted:
 1. Porter-Stransky K, Centanni S, Karne S, Odil L, Fekir S, Wong J, Liles L, Mitchel HI, Escayg A, **Pedersen NP**, Winder D, Mitrano D, Weinshenker D. Noradrenergic transmission at alpha1-adrenergic receptors in the ventral periaqueductal gray modulates arousal.
- c. Review Articles:
 1. Sengupta S, **Pedersen NP**, Greenstein P, Wong ET, Davis JE, Reddy H, Rojas R, Kasper E (2011). Illusion of stroke: intravascular lymphomatosis. *Rev Neurol Dis*. 8(3-4): 107-113.

2. Saper CB, Fuller PM, **Pedersen NP**, Lu J, Scammell TE (2010). Sleep state switching. *Neuron*. 2010 Dec 22;68(6): 1023-1042. PMID: PMC3026325
3. **Pedersen NP**, Fuller PM, Lu J, Saper CB (2008). In the flicker of an eye. *Journal of Physiology*, 586 (14): 3305-3306. PMID: PMC2538807

d. Book Chapters:

1. **Pedersen NP**, Baumann CR. *Clinical and Basic Aspects of Human Sleep Disorders*. In *SRS Basics of Sleep Guide, 2nd Ed.*, Sleep Research Society.
2. **Pedersen NP**, Gross RE. *Optogenetics and Related Technologies*. In *Neuromodulation*. Elsevier, 2017.

e. Manuals, Videos, Computer Programs, and Other Teaching Aids:

1. *BIDMC Neurology Resident Handbook, electronic version with updates, 2010.*

f. Theses:

1. *The effect of MDMA (3,4-methylenedioxymethamphetamine, 'Ecstasy') on cutaneous blood flow and body temperature in conscious unrestrained rabbits*. Honours Thesis, by Research, 2000. Flinders University Library.
2. *The Relationship Between Affective Regulation and Pain Processing*. Honours in Medicine Thesis, 2007. Faculty of Medicine, The University of Sydney.