

CURRICULUM VITAE

**NAME:** Christopher Glenn Wilson

**PLACE AND DATE OF BIRTH:** September 11, 1966, St. Louis, Missouri, USA.

**ADDRESS AND PHONE:**

**HOME** 3725 W 169<sup>th</sup> St  
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**WORK** Case Western Reserve University  
Dept. of Pediatrics, Division of Neonatology  
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**EDUCATION:**

**B.A.** 1988, *Human Biology*. Minors: Chemistry, Russian Language.  
California State University, Sacramento.

**Ph.D.** 1996, *Physiology* (concentration: Neurophysiology, minor subject:  
Biomedical Engineering), University of California, Davis.

**PROFESSIONAL APPOINTMENTS:**

1989–1992 Research/Teaching Assistant, Dept. of Animal Physiology, Univ. of  
California, Davis  
1992–1996 Pre-Doctoral Fellow, NIH Training Grant, Graduate Program in  
Physiology, University of California, Davis  
1996–2001 IRTA Post-Doctoral Fellow, Lab. of Neural Control, NIH-NINDS,  
Bethesda, Maryland  
2001–2002 Instructor, Dept. of Pediatrics, Div. Of Neonatology, Case Western  
Reserve University, Cleveland, Ohio.  
2002–2010 Assistant Professor, Dept. of Pediatrics, Div. of Neonatology, Case  
Western Reserve University, Cleveland, Ohio.  
2005–2010 *Director*, Developmental Neurobiology Laboratory, Dept. of  
Pediatrics, Case Western Reserve University, Cleveland, Ohio.  
2010–present Associate Professor, Dept. of Pediatrics, Div. of Neonatology, Case  
Western Reserve University, Cleveland, Ohio.

**LICENSURE AND BOARD CERTIFICATION:** N/A

**MILITARY SERVICE:** None

**MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

Member, *Society for Neuroscience*  
Member, *American Physiological Society*  
Member, *Dobro Slovo* (National Slavic Language Honor Society)  
Member, *Golden Key Honor Society*

**HONORS AND AWARDS:**

Member, Dobro Slovo, National Slavic Language Honor Society  
Member, Golden Key Honor Society

**PROFESSIONAL SERVICE:**

Reviewer for *Journal of Physiology*, *Journal of Neuroscience*, *Journal of Applied Physiology*, *IEEE Proceedings on Biomedical Engineering*, *Journal of Neurobiology*, *Journal of Neurophysiology*, *Journal of Theoretical Biology*, *Frontiers in Respiration*, *Frontiers in Neuroscience*, *Respiration Physiology and Neurobiology*.  
*Joint Programming Committee Representative*, American Physiological Society (Hypoxia Special Interest Group, appointed April 2009–May 2010)  
*Editor of the American Physiological Society Respiration Section Newsletter* (appointed April, 2008)  
*Assistant Editor of the American Physiological Society Hypoxia Special Interest Group Newsletter* (appointed April, 2009)  
*Chair of the American Physiological Society Hypoxia Special Interest Group Newsletter* (appointed April, 2010)

**HOSPITAL/UNIVERSITY COMMITTEE SERVICE:**

*Institutional Animal Care and Use Comm.* (IACUC), June 2005–October 2010  
*Neonatology Fellows Education Comm.*, Dept. of Pediatrics, July 2002–present  
*UH Intensive Care Monitoring Comm.*, University Hospitals, Feb. 2007–present

**INVITED PRESENTATIONS/WORKSHOPS/SHORT COURSES:**

*Jan, 2012* Center for Perinatal Biology, Loma Linda University, CA.  
*May, 2011* Dept. of Physiology and Biophysics, Wright State University, OH.  
*February, 2010* Division of Neonatology, Johns Hopkins, MD.  
*September, 2009* Let's Get Together: Bioinformatics Symposium, UH/CWRU.  
*January, 2009* Willard Bernbaum Cystic Fibrosis Center, UH/CWRU.  
*October, 2008* Pulmonary and Critical Care Grand Rounds, UH/CWRU.  
*September, 2008* Bioinformatics Symposium, UH/CWRU.  
*September, 2008* Pediatrics Dept. Cross-Disciplinary Seminar, Univ. of Chicago  
*August, 2008* Hypoxia Research Group, Invited Seminar, Univ. of Chicago.  
*August, 2008* Pediatrics Dept. Special Seminar, University of Illinois, Chicago.  
*February, 2008* Neurosciences Seminar, Cleveland Clinic Foundation.  
*February, 2007* Translational Neurosciences Group, CWRU.  
*April, 2004* Peter Scheid Retirement Symposium, San Diego, CA.

**EDUCATIONAL ACTIVITIES:**

*Chief Instructor*, Topics in Cardio-respiratory Physiology, Physiology and Biophysics 519 (2012).  
*Chief Instructor*, Neonatology Fellows' Research Methods and Theory Course, Pediatrics (2002–2010).  
*Instructor*, Physiology and Biophysics 480 (2008–present).

*Instructor*, Physiology and Biophysics 519 (2004–present).

*Instructor*, Neuromuscular Section, First year medical school curriculum (2002–2006).

*Small Group Facilitator*, Neuromuscular curriculum, First year year medical school curriculum (2007–2010)

## GRANTS:

### CURRENT

2010–Present NIH NICHD HD064830-02 (RO3), *Intermittent hypoxia and retinopathy of prematurity*

Investigator: I am the principal investigator.  
The goal of this project is to quantify patterns of desaturation/re-saturation in premature infants and correlate these patterns with retinopathy of prematurity.

2010–Present NIH NHLBI HL098628 (R21), *Cytokines and neonatal respiratory control*

Investigator: Richard J. Martin (I am a co-investigator)  
The goal of this project is to evaluate the role that inflammation plays in altering breathing rhythm and response to hypoxia and hypercapnia in rats.

### PAST

2006–2011 NIH NHLBI HL81622 (RO1, *Astrocytes in neonatal respiration*. (2006–2011)

Investigator: Christopher Wilson (I am the principal investigator)  
The goal of this project is to quantify the role of astrocytes in modulation of central respiratory drive generated in the rat brainstem over the first two weeks of postnatal development.

2006–2011 NIH NIBMEIE EB004018, *Diamond neuro-sensors and neural stimulating electrodes*. (2006–2011)

Investigator: Heidi Martin (I am a co-investigator)  
The goals of this project included electrochemical detection of neuroactive chemicals/neurotransmitters in both mammalian and invertebrate neural networks.

2005–2008 National Multiple Sclerosis Society RG 3669-A-2, *Proteolipid protein gene expression in MD rats* (2005–2008)

Investigator: Martha Miller (I am a co-investigator)  
This project was focused on brainstem chemosensory neural circuits in MD rats, rats lacking the gene necessary for formation of myelin in the central nervous system.

2001–2007 NIH NHLBI HL62527, *Developmental regulation of hypercapnic responses*. (1999–2007)

Investigator: Richard Martin (I was a co-investigator)

The major goal of this project was the characterization of central neural chemical pathways contributing to impaired hypercapnic ventilatory response in early life.

2001–2005 NIH NHLBI HL56470, *Maturation of airway relaxation responses*. (1996–2005)

Investigator: Richard Martin (I was research personnel on this grant)  
This project sought to characterize signaling pathways that mediate airway relaxin responses induced by nitric oxide and prostaglandins under normoxic and hyperoxic conditions.

2002–2003 Children's Health Foundation Grant, Dept. of Pediatrics, CWRU. *Glia and neuron interactions in the in vitro respiratory slice preparation*.

Investigator: Christopher Wilson (principal investigator)  
This project was focused on determining the manner in which cell-to-cell interactions between neurons and glia modulate respiratory rhythm. My responsibilities include preparing the animal model, performing whole-cell patch-clamp recordings, analyzing the data and writing and submitting any manuscripts from that data.

#### **PUBLICATIONS:**

##### **In preparation**

Jones J, Mayer CA, Choudhri D, Foglyano R, **Wilson CG**. Age-dependent changes in A<sub>2A</sub> receptor expression in preBötzinger and Bötzingler complexes in rat brainstem. We are preparing this manuscript which is a neuroanatomical summary of the work we did to fulfill Specific Aim 1 of the RO1, *Astrocytes in neonatal respiration*. We intend to submit this manuscript to *J Autonomic Nervous System*.

##### **Articles (peer reviewed)**

Balan KV, Kc P, Mayer CA, **Wilson CG**, Belkadi A, Martin RJ. Intrapulmonary LPS Exposure Upregulates Cytokine Expression in the Neonatal Brainstem. *Acta Paediatr*. 2011 Dec 16. doi: 10.1111/j.1651-2227.2011.02564.x. [Epub ahead of print]

Fietkiewicz C, Loparo, KA, **Wilson, CG**. Drive latencies in hypoglossal motoneurons indicate developmental change in the brainstem respiratory network. *J Neural Engineering* 8, 2011, 0.6501

Gresham K, Boyer B, Mayer CA, Foglyano R, Martin RJ, **Wilson CG**. Airway inflammation and central respiratory control: results from *in vivo* and *in vitro* neonatal rat. Submitted to *Resp Physiol Neurobiol*. Sep 30;178(3):414-21. Epub

2011 May 14.

Balan KV, Kc P, Mayer CA, **Wilson CG**, Martin RJ. Vagal afferents modulate cytokine-mediated respiratory control at the neonatal brainstem. *Resp Physiol Neurobiol*. Sep 30;178(3):458-64. Epub 2011 Mar 17.

Jacono FJ, Mayer CA, Hsieh Y-H, **Wilson CG**, Dick TE. Lung and brainstem cytokine levels are associated with breathing pattern changes in a rodent model of acute lung injury. Submitted to *Resp Physiol Neurobiol*. Sep 30;178(3):429-38. Epub May 6, 2011.

Jacono FJ, De Georgia MA, **Wilson CG**, Dick TE, Loparo KA. Data Acquisition and Complex Systems Analysis in Critical Care: Developing the Intensive Care Unit of the Future. *Journal of Healthcare Engineering* 2010, 1(3): 337–35.

Hu X, Zhou X, He W, Yang J, Xiong W, Wong P, **Wilson CG**, Yan R. BACE1 deficiency causes altered neuronal activity and neurodegeneration. *J Neurosci*. 2010 Jun 30;30(26):8819–29.

Cordovez JM, **Wilson CG**, Solomon IC. Geometrical analysis of bursting pacemaker neurons generated by computational models: comparison to in vitro pre-Bötzinger complex bursting neurons. *Adv Exp Med Biol*. 2010;669:45–8.

Steggerda JA, Mayer CA, Martin RJ, **Wilson CG**. Effect of intermittent hypercapnia on respiratory control in rat pups. *Neonatology*, 97(2):117–123, 2010. (online version available September, 2009).

Mayer CA, Macklin WB, Avishani N, Balan K, **Wilson CG**, Miller MJ. Mutation in the myelin of proteolipid gene alters BK and SK currents in neurons in the *nucleus tractus solitarius*. *Respir Physiol Neurobiol*. 2009 Dec 31;169(3):303-14. Epub 2009 Oct 4.

Martin RJ and **Wilson, CG**. What to do about apnea of prematurity? *J Appl Physiol*. Aug 20 2009. [Epub ahead of print] (peer-reviewed editorial)

Anderson TA, Foglyano RM, **Wilson CG**. Altered respiratory rhythm in a preBötzinger complex model due to addition of low-threshold, non-inactivating  $K^+$  current and tonic input. *BMC Neuroscience*, 10(Suppl 1):P323, 2009. doi:10.1186/1471-2202-10-S1-P323.

Foglyano RM, Kaffashi F, Dick TE, Loparo KA, **Wilson CG**. Quantifying the Complexity of Neural Network Output Using Entropy Measures. *BMC Neuroscience*, 10(Suppl 1):P322, 2009. doi:10.1186/1471-2202-10-S1-P322.

Kohn AZ, Hoxha Z, Balan KV, Martin RJ, Haxhiu MA, **Wilson CG**, Mayer CA, Kc P. Developmental changes in brainstem neurons regulating lower airway caliber. *Pediatr Res*. May;65(5):509-13, 2009.

Kaffashi F, Foglyano R, **Wilson CG**, and Loparo, KA. The effect of time delay on Approximate & Sample Entropy calculations. *Physica D*, 237, June, 3069–74.

DOI:10.1016/j.physd.2008.06.005, 2008.

Koizumi H\*, **Wilson CG\***, Wong S, Yamanishi T, Koshiya N, Smith JC. Functional Imaging, Spatial Reconstruction, and Biophysical Analysis of a Respiratory Motor Circuit Isolated In Vitro. *J Neuroscience*, Mar 5, 28(10):2353-65, 2008.

\* *These authors contributed equally to this publication.*

**Wilson CG**, Akhter S, Mayer CA, Kc P, Balan KV, Ernsberger P, Haxhiu MA. Allergic Lung Inflammation Affects Central Noradrenergic Control of Cholinergic Outflow to the Airways in Ferret. *J Appl Physiol*. Dec; 103(6) [Sep 13, Epub ahead of print], 2007.

Erickson JT, Shafer G, Rossetti MD, **Wilson CG**, Deneris ES. Arrest of 5HT neuron differentiation delays respiratory maturation and impairs neonatal homeostatic responses to environmental challenges. *Respir Physiol Neurobiol*. Oct 15;159(1):85-101, 2007.

Bookatz GB, Mayer CA, **Wilson CG**, Vento M, Gelfand SL, Haxhiu MA, Martin RJ. Effect of supplemental oxygen on reinitiation of breathing after neonatal resuscitation in rat pups. *Pediatric Research*. 61(6):698–702, 2007.

Xie S, Shafer G, **Wilson CG**, Martin HB. In vitro adenosine detection with a diamond-based sensor. *Diamond and Related Materials*. 15:225–228, 2006.

Mayer CA, Haxhiu MA, Martin RJ, **Wilson CG**. Adenosine A<sub>2A</sub> receptors mediate GABAergic inhibition of respiration in immature rats. *J. Appl. Physiol* Jan;100(1):91–7, 2006.

Haxhiu MA, Kc P, Moore CT, Acquah SS, **Wilson CG**, Zaidi SI, Massari VJ, Ferguson DG. Brain stem excitatory and inhibitory signaling pathways regulating bronchoconstrictive responses. *J. Appl. Physiol*. Jun;98(6):1961-82, 2005

Young JK, Dreshaj IA, **Wilson CG**, Martin RJ, Zaidi SI, Haxhiu MA. An astrocyte toxin influences the pattern of breathing and the ventilatory response to hypercapnia in neonatal rats. *Respir. Physiol. Neurobiol*. May 12;147(1):19-30, 2005.

Martin RJ, **Wilson CG**, Abu-Shaweesh JM, Haxhiu MA. Role of inhibitory neurotransmitter interactions in the pathogenesis of neonatal apnea: implications for management. *Semin Perinatol*. Aug;28(4):273-8, 2004.

Gonsenhausner I, **Wilson CG**, Fang H, Strohl KP, Dick TE. Strain differences in murine ventilatory behavior persist after urethane anesthesia. *J. Appl. Physiol*. 97(3):888-94, 2004.

**Wilson CG**, Martin RJ, Jaber M, Abu-Shaweesh J, Jafri A, Haxhiu MA, Zaidi S. Adenosine A<sub>2A</sub> receptors interact with GABAergic pathways to modulate respiration in neonatal piglets. *Respir. Physiol. Neurobiol*. Jul 20;141(2):201-11, 2004.

Moore CT, **Wilson CG**, Mayer CA, Acquah SS, Massari VJ, Haxhiu MA. A GABAergic inhibitory microcircuit controlling cholinergic outflow to the airways. *J. Appl. Physiol.* 96:260-270, 2004 (First published Sept. 12, 2003 online).

Zhang L, **Wilson CG**, Liu S, Haxhiu MA, Martin RJ. Hypercapnia-induced activation of brainstem GABAergic neurons during early development. *Respir. Physiol. Neurobiol.* Jun 12;136(1):25-37, 2003.

DelNegro CA, **Wilson CG**, Butera RJ, Rigatto H, Smith JC. Complex neural activity patterns in the network responsible for respiratory rhythm in mammals. *Biophys. Journal*, 82(1), pp. 206-214, 2002.

<http://www.biophysj.org/cgi/reprint/82/1/206.pdf>

Butera RJ, **Wilson CG**, DelNegro CA, Smith JC. A methodology for achieving high-speed rates for artificial conductance injection in electrically excitable biological cells. *IEEE Transactions on Biomedical Engineering*, 48(12), pp. 1460-1470, 2001.

Smith JC, Butera Jr. RJ, Koshiya N, DelNegro CA, **Wilson CG**, Johnson SM. Respiratory rhythm generation in neonatal and adult mammals: the hybrid pacemaker network model. *Respiration Physiology* 122(2-3):131-47, 2000.

**Wilson CG**, Bonham AC. Effect of cardiopulmonary c-fibre activation on the firing activity of ventral respiratory group neurones in rat. *J. Physiol. (Lond.)* 504(2):453-466, 1997.

**Wilson CG**, Zhang Z, Bonham AC. Non-NMDA receptors transmit cardiopulmonary c-fibre input to nucleus tractus solitarii in rats. *J. Physiol. (Lond.)* 496(3):773-785, 1996.

Bonham AC, Ravi K, **Wilson CG**, Zhang Z, Kappagoda CT. Pulmonary venous congestion augments respiratory motoneuronal responses to cigarette smoke in rabbit. *J. Applied Physiol.* 78:1145-57, 1995.

**Wilson CG**, Bonham AC. Area postrema excites and inhibits sympathetic-related neurons in rostral ventrolateral medulla in rabbit. *Am. J. Physiol.* 26:H1075-86, 1994.

Carstens E, **Wilson CG**. Rat tail flick reflex: magnitude measurement of stimulus-response function, suppression by morphine and habituation. *J. Neurophys.* 70:630-39, 1993.

### **Book Chapters**

Martin RM and **Wilson CG**. Apnea of Prematurity, *Comprehensive Physiology* (In Press), 2010.

Yu HJ, Chen X, Foglyano RM, **Wilson CG**, Solomon IC. Respiratory network complexity in neonatal rat in vivo and in vitro. *Adv Exp Med Biol.* 605:393-398,

2008.

Haxhiu MA, Kc P, Balan KV, **Wilson CG**, Martin RJ. Modeling of sleep-induced changes in airway function: implication for nocturnal worsening of bronchial asthma. *Adv Exp Med Biol.* 605:469-74, 2008.

Haxhiu MA, Mack SO, **Wilson CG**, Feng P, Strohl KP. Sleep networks and the anatomic and physiologic connections with respiratory control. *Front Biosci* May 1;8:d946-62. 2003

Rigatto H, **Wilson CG**, Koshiya N, House S, Smith JC. Stationary organotypic culture of the pre-Bötzinger complex from the newborn rat. *Frontiers in Modeling and Control of Breathing: Integration at Molecular, Cellular, and Systems Levels*, Eds. C.S. Poon and H. Kazemi, Kluwer/Plenum Press, New York, 2001.

DelNegro CA, **Wilson CG**, Butera Jr. RJ, Koshiya N, Johnson SM, Smith JC. Unstable breathing rhythms and quasiperiodicity in the pre-Bötzinger complex. *Frontiers in Modeling and Control of Breathing: Integration at Molecular, Cellular, and Systems Levels*, Eds. C.S. Poon and H. Kazemi, Kluwer/Plenum Press, New York, 2001.

**Wilson CG**, Butera Jr. RJ, DelNegro CA, Rinzel J, Smith JC. Interfacing computer models with real neurons: respiratory 'cyberneurons' created with the dynamic clamp. *Frontiers in Modeling and Control of Breathing: Integration at Molecular, Cellular, and Systems Levels*, Eds. C.S. Poon and H. Kazemi, Kluwer/Plenum Press, New York, 2001.

Bonham AC, **Wilson CG**. Interactions between area postrema and sympathetic or respiratory-related neurons in the rostral ventrolateral medulla. *Ventral Brainstem Mechanisms and Control of Respiration and Blood Pressure* Eds. C.O. Trouth, R.M. Millis, H.F. Kiwull-Schöne and M.E. Schläfke, Marcel Dekker, New York, Vol. 82, pp. 803–816, 1994.

## Abstracts

Hsieh YH, Miller R, **Wilson CG**. Progression of functional recovery in lysolecithin demyelinating models in adult rats. Abstract Viewer (available at sfn.org). *Society for Neuroscience*, 2008.

Mayer CA, **Wilson CG**, Macklin WB, Miller MJ. Plp gene mutation results in dysfunction of calcium activated potassium channels in the MD rat. Abstract Viewer (available at sfn.org). *Society for Neuroscience*, 2008.

Anderson T, Foglyano F, Thomas PJ, **Wilson CG**. Changing External Potassium Conditions Elicits Periodic Modulation of Respiratory Rhythm in a preBötzinger Complex Network Model While Other Methods of Boosting Excitability Do Not. Abstract Viewer (available at sfn.org). *Society for Neuroscience*, 2008.

Gegaj F, Shafer GO, **Wilson CG**. NR2A and NR2B NMDA/Glutamate receptors differentially modulate inspiratory pattern in early postnatal rat brainstem slices. Abstract Viewer (available at sfn.org). *Society for Neuroscience*, 2007.



**Wilson CG**, Shafer GO, Solomon IC. Sodium Cyanide And Hypoxic Hypoxia Similarly Excite PreBötzing Complex Neurons In Neonatal Rat Transverse Medullary Slice. *Experimental Biology*. American Physiological Society, 2007.

Foglyano R, Kaffashi F, Shafer G, Loparo K, Erickson JT, Deneris E, **Wilson CG**. Quantifying Respiratory Network Complexity using Entropy in the in vitro Mouse Brainstem Slice. Abstract Viewer (online). Washington, DC: *Society for Neuroscience*, 2006

Geoffrey O. Shafer; Musa A. Haxhiu; Richard J. Martin; Christopher G. Wilson. D-serine Facilitates Inspiratory Drive In The *In Vitro* Rat Medullary Slice Preparation. *Experimental Biology*, American Physiological Society, 2005.

Xie S, Shafer G, Wilson CG, Martin HB. *In Vitro* Adenosine Detection With a Diamond-Based Sensor. Abstract 568.10, Abstract Viewer (online). Washington, DC. *Society for Neuroscience*, 2005.

Shafer GO, Mayer CA, Martin RJ, **Wilson CG**. A2A Adenosine receptor activation differentially affects inspiratory neurons in the neonatal rat *in vitro* respiratory slice preparation Program No. 631.11. 2004 Abstract Viewer/Itinerary Planner, Online. Washington, DC: *Society for Neuroscience*, 2004.

Moore CT, **Wilson CG**, Sieck GT, Massari VT, Haxhiu MA. GABAergic inhibitory microcircuits involved in the inhibition of respiratory related motoneurons in the rat - an ultrastructural study. Abstract #223.9, *Experimental Biology*. American Physiological Society, 2004.

Mayer CA, Haxhiu MA, Martin RJ, Boyd GS, **Wilson CG**. Adenosine A<sub>2A</sub> receptors mediate GABAergic inhibition of respiration in young rats. Abstract #7339, *Experimental Biology*. 2003. <http://www.biosis-select.org/faseb/data/FASEB007339.html>

**Wilson CG**, Jaber M, Haxhiu MA, Martin RJ, Zaidi SI. Activation of A2-A Adenosine Receptors in the Ventrolateral Medulla of Developing Pig Inhibits Inspiratory Drive. Program No. 568.2. 2002 Abstract Viewer/Itinerary Planner. Washington, DC: *Society for Neuroscience*, 2002. Online.

**Wilson CG**, DelNegro CA, Koizumi H, Butera RJ, Smith JC. Tests of models of respiratory rhythm-generating neurons with MRCl, a new dynamic clamp system. *Soc. Neurosci. Abs.* 27:296.6, 2001.

Ruffin VA, **Wilson CG**, Archer PM, Trouth CO. pH Sensitive Neurons at Caudal Brainstem Surface *in vitro*. *Soc. Neurosci. Abstr.*, 27:714.29, 2001.

Butera RJ, Nguyen DP, Jervis AA, Rykov I, **Wilson CG**, DelNegro CA, Smith JC. A next-generation dynamic clamp: features and performance evaluation. *Soc. Neurosci. Abstr.*, 27:730.22, 2001.

Del Negro CA, Johnson SM, Butera Jr RJ, **Wilson CG**, Koshiya N, Smith JC.

Periodic, quasiperiodic, and chaotic states in rhythm-generating networks: studies with the mammalian respiratory oscillator. *Proceedings Computational Neuroscience*, 2000.

Butera Jr. RJ, **Wilson CG**, Rinzel J, Smith JC. Burst generating mechanisms of pre-Bötzinger complex pacemaker neurons: tests with the dynamic clamp. *Soc. Neurosci. Abs.* 25:696, 1999

Rigatto H, **Wilson CG**, Koshiya N, House S, Smith JC. Stationary organotypic culture of the pre-Bötzinger complex from the newborn rat. *Soc. Neurosci. Abs.* 25:696, 1999.

**Wilson CG**, Wong S, Koshiya N, Smith JC. Real-time imaging and patch-clamp recording from hypoglossal pre-motoneurons in thin medullary slices *in vitro*. *FASEB Journal* 13(4), Pt. 1:A493, 1999.

Butera RJ, **Wilson CG**, Rinzel J, Smith JC. Implementation of a fast dynamic clamp using RT-Linux. *FASEB Journal* 13(4), Pt. 1:A424, 1999.

Tabak J, Bonnot A, **Wilson CG**, O'Donovan MJ. Developmental changes of the effects of GABAergic and glycinergic transmission in the spinal cord of mouse fetus and neonate. *Soc. Neurosci. Abs.* 24:1668, 1998.

**Wilson CG**, Koshiya N, Smith JC. Real-time functional imaging of hypoglossal pre-motor and motor neurons in thin medullary slices *in vitro*. *Soc. Neurosci. Abs.* 24:875, 1998.

Smith JC, Koizumi H, Koshiya H, **Wilson CG**. The neuronal kernel for respiratory rhythm generation studied in thin transverse medullary slice preparations. *Soc. Neurosci. Abs.* 23: 1253, 1997.

**Wilson CG**, Zhang Z, Bonham AC. Excitatory amino acids (EAAs) acting primarily at non-NMDA receptors transmit lung c-fiber input to the nucleus tractus solitarius (NTS). *Am. J. of Resp. and Crit. Care*, 153:4, 1996.

**Wilson CG**, Zhang Z, Bonham AC. Proximal synapses in the lung c-fiber afferent pathway: potential role of excitatory amino acids (EAAs). *Soc. Neurosci. Abs.* 21:1876, 1995.

**Wilson CG**, Bonham AC. C-Fiber input to inspiratory (I) and expiratory (E) cells in the ventral respiratory group (VRG) in rat. *Soc. Neurosci. Abs.*, 20:302, 1994.

**Wilson CG**, Zhang Z, Ravi K, Kappagoda CT, Bonham AC. Effects of cigarette smoke inhalation (CS) and pulmonary venous congestion (PVC) on inspiratory (I)- and expiratory (E)-related cells in the ventral respiratory group (VRG). *FASEB Journal* 8:5276, 1994.

Carstens, **Wilson CG**. Quantification of the rat tail flick reflex (TFR). *Soc. Neurosci. Abs.* 17:1108, 1991.

**TRAINEES:**

<i>Name:</i>	<i>Degree:</i>	<i>Training Period:</i>	<i>Current Position:</i>
Ana Ribeiro	Post-Doctoral Fellow	2010–present	(in my lab)
Adam Soliman	M.S. Student	2012–present	(in my lab)
Dan Kaufman	M.S. Student	2011	Applying to M.D. Progs.
Ken Gresham	Ph.D. Student	2010–present	(in my lab)
Chris Fietkiewicz	Ph.D. Student	2007–2010	Assistant Professor
Yee-Hsee Hsieh	Post-Doctoral Fellow	2008–2010	Assistant Professor
Timothy Anderson	Post-undergrad	2007–2008	M.D.
George Aranjuez	Ph.D. student	2007–2008	(Xfer to different prog.)
Florian Gegaj	Post-Doctoral Fellow	2006–2008	Resident
Oded Messner	Post-Doctoral Fellow	2004–2006	M.D.
Andrew Bishop	Post-undergrad	2004–2005	Med Student
Geoffrey Shafer	Undergrad/post-grad	2004–2007	Masters Student
Rebekah Cawley	Undergrad/post-grad	2004–2005	Resident
Stephen Wong	Howard Hughes Fellow	1999–2000	Assistant Professor

**THESIS COMMITTEE MEMBERSHIP:**

<i>Name:</i>	<i>Degree:</i>	<i>Dept./Program:</i>
Gartz Hanson	Ph.D. (2005)	Neurosciences, CWRU
SongTao Xie	Ph.D. (2006)	Chemical Engineering, CWRU
Radu Iancu	Ph.D. (2008)	Physiology and Biophysics, CWRU
Kelly Warren	Ph.D. (2009)	Physiology and Biophysics, SUNY Stony Brook (external examiner)
Kevin Horn	Ph.D. (2009)	Neurosciences, CWRU
Yuan Gao	Ph.D. (2009)	Neurosciences, CWRU
Phil Larimer	M.D./Ph.D. (2009)	Neurosciences, CWRU
Ramadan Sopi	Ph.D. (2010)	Physiology and Biophysics, Univ. Prstna (external examiner)
Ross Anderson	Ph.D. (current)	Physiology and Biophysics, CWRU
Maria Smith	Ph.D. (current)	Neurosciences, CWRU
Loren Schmidt	Ph.D. (current)	Neurosciences, CWRU
Jaqueline Hill	Ph.D. (current)	Physiology and Biophysics, CWRU
Rebecca James	Ph.D. (current)	Neurosciences, CWRU