Curriculum Vitae

Paul B. Farel, Ph.D.
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Education:

University of California, Berkeley	A.B.	1966	Psychology
University of California, Los Angeles	M.A.	1967	Physiological Psychology
University of California, Los Angeles	Ph.D.	1970	Physiological Psychology
University of California, Irvine	Postdoc	1970-1972	Psychobiology (with R.F. Thompson)

Employment

1972-1973	Instructor in Physiology, Department of Physiology, School of Medicine, University of North Carolina, Chapel Hill, North Carolina
1973- 1979	Assistant Professor in Physiology, Department of Physiology, School of Medicine, University of North Carolina, Chapel Hill, North Carolina
1979- 1987	Associate Professor in Physiology, Department of Physiology, School of Medicine, University of North Carolina, Chapel Hill, North Carolina
1987-present	Professor in Cell and Molecular Physiology
2005-2007	Program Director, Developmental Neuroscience, National Science Foundation. (Two-year rotator position)

Honors

A.B. with High Honors in Psychology, Phi Beta Kappa, 1966
Director, Medical Neurobiology, Best Course Award, 1989-1996, 1998-1999, 2001-2004
Hyman L. Battle Distinguished Excellence in Teaching Award, 1995, 2006
Freshman Basic Science Teaching Award, 1995, 1997, 2004

National Service

Neurology B2 Study Section, 1992-1997 (Chair, 1995-1997)
CSR BDCN-2(2L) Study Section, 1995-2000 (*ad hoc* Chair, 2-3 times per year)
CSR BDCN, Study Section, 2001-2002, *ad hoc*, three meetings
CSR NDBG Special Emphasis Panel, 2004, *ad hoc*
NSF Developmental Neuroscience Panel, 2004
NIH/NINDS Special Emphasis Panel, 2005, *ad hoc*
CSR NDBG, Study Section, 2003-2005, *ad hoc*, three times per year

University Service (Last five years and selected)

Executive Committee of the Faculty Council (1992-1998)
Chancellor's Advisory Committee (1998-2001, Chair, 2000-2001)
Chancellor's Task Force on Appointment, Promotion, and Tenure (Co-Chair, 2001-2003)
Health Sciences Library Advisory Committee (Chair, 2000-2005)
Administrative Board of the Library (2003-2005)

University Teaching Awards Committee (2004-2005)
University Grievance Committee (2003-2005)
Provost's Committee on Appointment, Promotion, and Tenure (2008-2011)

School of Medicine Service (Current and selected)

Associate Dean for Preclinical Education (1998-2000)
Co-Chair Medical School Admissions Committee (1998-2000)
Director Medical Sciences Teaching Laboratories (1998-2000)
Advisor to SIGN (Student Interest Group in Neurology, 2001-2005)
First-Year Course Directors' Committee (1989-2005)
Post-Tenure Review Committee, School of Medicine (2005, 2008 - present)
Conflict of Interest Committee, School of Medicine (2002-2005, 2007 – present)

Most Recently Completed Grant, Principal Investigator

Sensory Neuron Addition In Rat
5 R01 NS37524, 1/1/99 - 12/31/03

Ad Hoc Reviewer (Last five years):

Anatomical Record
Brain Research
Experimental Neurology
Journal of Comparative Neurology
Journal of Neurocytology
Journal of Neurophysiology
Journal of Neuroscience
Journal of Neuroscience Research

Refereed Papers

Farel,P.B. (1971) Long-lasting habituation in spinal frogs. Brain Res.*33*:405-417.

Farel,P.B. (1971) Post-transectional hyperexcitability and centrally mediated response decrements in chronic spinal frog. Physiol. Behav. *7*:529-533.

Jacobs,B.L. and Farel,P.B. (1971) Motivated behaviors produced by increased arousal in the presence of goal objects. Physiol. Behav.*6*:473-476.

Farel,P.B. and Buerger,A.A. (1972) Instrumental conditioning of leg position in chronic spinal frog: before and after sciatic section. Brain Res.*47*:345-351.

Farel,P.B. and Krasne,F.B. (1972) Maintenance of habituation by infrequent stimulation. Physiol. Behav.*8*:783-785.

Farel,P.B. and Thompson,R.F. (1972) Habituation and dishabituation to dorsal root stimulation in the isolated frog spinal cord. Behav. Biol. *7*:37-45.

Farel,P.B., Glanzman,D.L., and Thompson,R.F. (1973) Habituation of a monosynaptic response in vertebrate central nervous system: lateral column-motoneuron pathway in isolated frog spinal cord. J. Neurophysiol. *36*:1117-1130.

Farel,P.B. (1974) Dual processes control response habituation across a single synapse. Brain Res.*72*:323-327.

Farel,P.B. (1976) Plasticity of a monosynaptic response in isolated frog spinal cords: habituation and persistent potentiation. Advances in Psychobiology *3*:273-299.

Farel,P.B. and Thompson,R.F. (1976) Habituation of a monosynaptic response in frog spinal cord: evidence for a presynaptic mechanism. J. Neurophysiol. *39*:661-666.

Farel,P.B. and Mclean,J.G. (1976) Behavioral changes in chronic spinal frog. Brain Res.*106*:418-422.
Farel,P.B. (1977) Modulation of response threshold in frog spinal cord: dependence upon descending influences. Behav. Biol. *20*:507-511.
Farel,P.B. (1978) Reflex activity of regenerating frog spinal motoneurons. Brain Res.*158*:331-341.
McIlwain,D.L. and Farel,P.B. (1979) Initiation and time course of mitosis of non-neuronal cells after spinal motoneuron axotomy. Brain Res.*178*:519-528.
Farel,P.B. and Bemelmans,S.E. (1980) Retrograde labeling of migrating spinal motoneurons in bullfrog larvae. Neurosci.Lett. *18*:133-136.
Farel,P.B. (1980) Selective synaptic changes following spinal motoneuron axotomy. Brain Res.*189*:67-77.
Stehouwer,D.J. and Farel,P.B. (1980) Central and peripheral controls of swimming in anuran larvae. Brain Res. *195*:323-335.
Chu-Wang,I.-W., Oppenheim,R.W., and Farel,P.B. (1981) Ultrastructure of migrating spinal motoneurons in anuran larvae. Brain Res. *213*:307-318.
Stehouwer,D.J. and Farel,P.B. (1981) Sensory interactions with a central motor program in anuran larvae. Brain Res. *218*:131-140.
Forehand,C.J. and Farel,P.B. (1982) Anatomical and behavioral recovery from the effects of spinal cord transection: dependence on metamorphosis in anuran larvae. J. Neurosci. *2*:654-52.
Forehand,C.J. and Farel,P.B. (1982) Spinal cord development in anuran larvae: I. Primary and secondary neurons. J. Comp. Neurol. *209*:386-394.
Forehand,C.J. and Farel,P.B. (1982) Spinal cord development in anuran larvae: II. Ascending and descending pathways. J. Comp. Neurol.*209*:395-408.
Farel,P.B. and McIlwain,D.L. (1983) Cholinergic enzyme activity in neurons of the developing anuran spinal cord. Brain Res.*284*:275-282.
Stehouwer,D.J. and Farel,P.B. (1983) Development of hindlimb locomotor activity in the bullfrog (*Rana catesbeiana*) studied in vitro. Science *219*:516-518.
Stehouwer,D.J. and Farel,P.B. (1984) Development of hindlimb locomotor behavior in the frog. Devel.Psychobiol. *17*:217-232.
Farel,P.B. and Bemelmans,S.E. (1985) Specificity of motoneuron projection patterns during development of the bullfrog tadpole (*Rana catesbeiana*). J. Comp. Neurol.*238*:128-134.
Mcclellan,A.D. and Farel,P.B. (1985) Pharmacological activation of locomotor patterns in larval and adult frog spinal cords. Brain Res.*332*:119-130.
Stehouwer,D.J. and Farel,P.B. (1985) Development of locomotor mechanisms in the frog. J.Neurophysiol. *53*:1453-1466.
Farel,P.B. and Bemelmans,S.E. (1986) Restoration of neuromuscular specificity following ventral rhizotomy in the bullfrog tadpole, *Rana catesbeiana*. J. Comp. Neurol.*254*:125-132.
Farel,P.B. (1986) Specificity of neuromuscular connections during early development and following regeneration of motor axons in the bullfrog. Neurochem. Pathol. *5*:187-203.
Farel,P.B. (1987) Motoneuron number in the lumbar lateral motor column of larval and adult bullfrogs. J. Comp. Neurol.*261*:266-276.
Lee,M.T. and Farel,P.B. (1988) Guidance of regenerating motor axons in larval and juvenile bullfrogs. J.Neurosci. *8*:2430-2437.
Farel,P.B. (1989) Naturally occurring cell death and differentiation of developing spinal motoneurons following axotomy. J. Neurosci. *9*:2103-2113.
Farel,P.B. and Wray,S.E. (1989) Regenerative specificity of motor axons when reinnervation is partially suppressed. J. Neurobiol. *20*:69-80.

Davis,G.R.J. and Farel,P.B. (1990) Mauthner cells maintain their lumbar projection in adult frog. Neurosci. Lett. *113*:139-143.
Davis,G.R., Jr. and Farel,P.B. (1990) Mauthner cells maintain their lumbar projection in adult frog. Neurosci.Lett. *113*:139-143.
Alles,A., Alley,K., Barrett,J.C., Buttyan,R., Columbano,A., Cope,F.O., Copelan,E.A., Duke,R.C., Farel,P.B., Gershenson,L.E., and et,al. (1991) Apoptosis: a general comment. FASEB.J. *5*:2127-2128.
Farel,P.B. and Wray,S.E. (1992) Neuromuscular specificity following cross-stage hindlimb transplantation Exp. Neurol. *116*:180-188.
Farel,P.B., St, and Wray,S.E. (1992) Neuron addition in the postmetamorphic frog. Exp. Gerontol. *27*:111-124.
Farel,P.B. and Meeker,M.L. (1993) Developmental regulation of regenerative specificity in the bullfrog. Brain Res.Bull. *30*:483-490.
Farel,P.B., Wray,S.E., and Meeker,M.L. (1993) Size-related increase in motoneuron number: evidence for late differentiation. Brain Res.*Dev. Brain Res. 71*:169-179.
Meeker,M.L. and Farel,P.B. (1993) Coincidence of Schwann cell-derived basal lamina development and loss of regenerative specificity of spinal motoneurons. J.Comp.Neurol. *329*:257-268.
St.Wecker,P.G. and Farel,P.B. (1994) Hindlimb sensory neuron number increases with body size. J.Comp.Neurol. *342*:430-438.
St Wecker,P.G., Baek,J.K., and Farel,P.B. (1995) Principal neurons of the lumbar sympathetic ganglia increase in number with body size. J. Comp. Neurol.*357*:117-123.
Popken,G.J. and Farel,P.B. (1996) Reliability and validity of the physical disector method for estimating neuron number. J. Neurobiol. *31*:166-174.
Meeker,M.L. and Farel,P.B. (1997) Neuron addition during growth of the postmetamorphic bullfrog: Sensory neuron and axon number. J. Comp. Neurol.*389*:569-576.
Popken,G.J. and Farel,P.B. (1997) Sensory neuron number in neonatal and adult rats estimated by means of stereologic and profile-based methods. J. Comp. Neurol.*386*:8-15.
Farel,P.B. and Boyer,A. (1999) Transient effects of nerve injury on estimates of sensory neuron number in juvenile bullfrog. J. Comp. Neurol.*410*:171-177.
Berg J.S, Farel PB. Developmental regulation of sensory neuron number and limb innervation in the mouse.Brain Res Dev Brain Res. 2000 Dec 29;125(1-2):21-30.
Farel PB, McIlwain DL. Neuron addition and enlargement in juvenile and adult animals. Brain Res Bull. 2000 Nov 15;53(5):537-46. Review.
Farel PB. Trust, but verify: the necessity of empirical verification in quantitative neurobiology. Anat Rec. 2002 Jun 15;269(3):157-61. Review.
Farel PB. (2001) Neuron addition and neurogenesis are not interchangeable terms. Anat Rec.;265:159-60. Letter.
Farel PB. Sensory neuron addition in juvenile rat: time course and specificity. J Comp Neurol. 2002 Jul 22;449(2):158-65.
Farel PB. Late differentiation contributes to the apparent increase in sensory neuron number in juvenile rat. Brain Res Dev Brain Res. 2003 Aug 12;144(1):91-8.