

JOHN PALKA

Born: 29 July, 1939 in Paris, France; Czechoslovak citizen

Citizenship: U.S.A., naturalized in 1954

Education: B.A. in Biology, Swarthmore College, 1960

Ph.D. in Zoology, UCLA, 1965 (Prof. T.H. Bullock)

Honors and Awards:

- 1956-60 National Merit Scholar, Swarthmore College
- 1960-61 NSF Graduate Fellow, University of Delhi, India
- 1962-65 NASA Trainee, UCLA
- 1965-66 Fulbright Lecturer, Sri Venkateswara University, India
- 1975-76 John Simon Guggenheim Memorial Fellow, Cambridge University and Medical Research Council Laboratory of Molecular Biology, Cambridge, England
- 1981 Elected Fellow of the American Association for the Advancement of Science (AAAS)
- 1983 Fulbright Lecturer, University of Poona, India
- 1986-93 Jacob Javits Awardee in Neuroscience (National Institutes of Health, NIH)
- 1990 Outstanding Professor, Mortar Board Honorary Society, University of Washington
- 1991-92 Liberal Arts Professor, College of Arts and Sciences, University of Washington

Departmental Appointments:

- 1966-69 Assistant Professor of Biology, Rice University, Houston
- 1969-72 Assistant Professor of Zoology, University of Washington
- 1972-78 Associate Professor of Zoology, University of Washington
- 1978- Professor of Zoology, University of Washington
- 1985-88 Associate Chair, Department of Zoology, University of Washington
- 1992-97 Director, Biology Program, University of Washington
- 1997-02 Co-Director, Program on the Environment, University of Washington

Other Appointments:

- 1965-66 Fulbright Lecturer, Department of Zoology, Sri Venkateswara University, India
- 1966 (sum) Visiting Scientist, Gatty Marine Laboratory, St. Andrews, Scotland
- 1967 (sum) Visiting Scientist, Department of Zoology, University of Michigan
- 1975-76 Guggenheim Fellow, Department of Zoology and MRC Laboratory of Molecular Biology, Cambridge, England
- 1980 (sum) Instructor, Neural Systems and Behavior Course, Marine Biological Laboratory, Woods Hole, MA
- 1982 (sum) Instructor, Neural Systems and Behavior Course, Marine Biological Laboratory, Woods Hole, MA
- 1983 Fulbright Lecturer, Department of Zoology, University of Poona, India
- 1984 (sum) Instructor, Neural Systems and Behavior Course, Marine Biological Laboratory, Woods Hole, MA

- 1986 (sum) Instructor, Neurobiology of *Drosophila* Course, Cold Spring Harbor Laboratory, Long Island, NY
- 1988 (sum) Coordinator, Neurobiology of *Drosophila* Course, Cold Spring Harbor Laboratory, Long Island, NY
- 1989 (sum) Coordinator, Neurobiology of *Drosophila* Course, Cold Spring Harbor Laboratory, Long Island, NY

Activities Since Retirement:

- Academic: Ph. D. Supervisory Committee for Tema Milstein, Communications (2003-2007)
Ph. D. Supervisory Committee for Scott Brown, History (2006-2010)
Ph. D. Supervisory Committee for Marty Manor, History (2009-2013)
- Service: Board Member, Whidbey Institute (1998-2004)
Board Member, Friends of Freeland (2002-2006)
Member, Advisory Council, Au Sable Institute Pacific Rim (2003-2006)
Member, Island County Marine Resources Committee (2005-2007)
Member, Scientific Advisory Group, Seattle Biotech Legacy Foundation (2006-2009)
Principal Organizer, Lyceum Lectures on Whidbey Island (2000-2009)
Board Member, Siddha Yoga Meditation Center of Seattle (2011-2014)
- Books: *Moje Slovensko, moja rodina*, Kalligram, Bratislava, 2010
My Slovakia, My Family: One Family's Role in the Birth of a Nation, Kirk House Publishers, Minneapolis, 2012; www.jpalka.com
- Blog: *Nature's Depths* (started November, 2015): www.naturesdepths.com

PUBLICATIONS

(Full papers only; abstracts not included)

1. Palka, J. 1965. Diffraction and visual acuity of insects. *Science* **149**: 551-553.
2. Palka, J., and Babu, K.S. 1967. Toward the physiological analysis of defensive responses of scorpions. *Z. vergl. Physiol.* **55**: 286-297.
3. Palka, J. 1967. An inhibitory process influencing visual responses in a fibre of the ventral nerve cord of locusts. *J. Insect Physiol.* **13**: 235-248.
4. Palka, J. 1969. Discrimination between movements of eye and object by visual interneurons of crickets. *J. exp. Biol.* **50**: 723-732.
5. Edwards, J.S., and Palka, J. 1971. Neural regeneration: Delayed formation of central contacts by insect sensory cells. *Science* **172**: 591-594.
6. Abraham, F., Palka, J., Peeke, H.V.S., and Willows, A. O. D. 1972. Model systems and strategies for the neurobiology of learning. *Behav. Biol.* **7**: 1-24.
7. Palka, J. 1972. Moving movement detectors. *Am. Zool.* **12**: 497-505.
8. Edwards, J.S., and Palka, J. 1973. Neural specificity as a game of cricket: Some rules for sensory regeneration in *Acheta Domesticus*. In Young, D. (Ed.), *Developmental Neurobiology of Arthropods*. Cambridge U.P., pp. 131-146.
9. Weiss, M.J., and Palka, J. 1973. Comparative anatomy of the central nervous system: Major invertebrate phyla. In Altman, P.L., and Dittmer, D.S. (Eds.), *Biology Data Book*, Second Edition. Fed. Am. Soc. Exp. Biol., pp. 1133-1137.
10. Edwards, J.S., and Palka, J. 1974. The cerci and abdominal giant fibres of the house cricket, *Acheta domesticus*. I. Anatomy and physiology of normal adults. *Proc. Roy. Soc. Lond.* **B 185**: 83-103.
11. Palka, J., and Edwards, J.S. 1974. The cerci and abdominal giant fibres of the house cricket, *Acheta domesticus*. II. Regeneration and effects of chronic deprivation. *Proc. Roy. Soc. Lond.* **B 185**: 105-121.
12. Murphey, R.K., and Palka, J. 1974. Efferent control of cricket giant fibres. *Nature* **248**: 249-251.
13. Palka, J., and Pinter, R.B. 1975. Theoretical and experimental studies of visual acuity in compound eyes. In Horridge, G.A. (Ed.), *Symposium on the Compound Eye*. Oxford U.P., pp. 321-337.
14. Murphey, R.K., Mendenhall, B., Palka, J., and Edwards, J.S. 1975. Deafferentation slows the growth of specific dendrites of identified giant interneurons. *J. comp. Neurol.* **159**: 407-418.
15. Palka, J., and Schubiger, M. 1975. Central connections of receptors on rotated and exchanged cerci of crickets. *Proc. Natl. Acad. Sci. USA* **72**: 966-969.
16. Edwards, J.S., and Palka, J. Neural generation and regeneration. In Fentress, J.C. (Ed.), *Simpler Networks: An Approach to Patterned Behavior and its Foundations*. Sinauer, pp. 167-185.
17. Stocker, R.F., Edwards, J.S., Palka, J., and Schubiger, G. 1976. Projection of sensory neurons from a homeotic appendage, *Antennapedia*, in *Drosophila melanogaster*. *Dev. Biol.* **52**: 210-220.
18. Palka, J., Levine, R., and Schubiger, M. 1977. The cercus-to-giant interneuron system of crickets. I. Some attributes of the sensory cells. *J. comp. Physiol.* **119**: 267-283.
19. Murphey, R.K., Palka, J., and Hustert, R. 1977. The cercus-to-giant interneuron system of crickets. II. Response properties of two giant interneurons. *J. comp. Physiol.* **119**: 285-300.

20. Palka, J., and Olberg, R. 1977. The cercus-to-giant interneuron system of crickets. III. Receptive field organization. *J. comp. Physiol.* **119**: 301-318.
21. Palka, J. 1977. Abnormal neural development in invertebrates. In Stent, G.S. (Ed.), *Function and Formation of Neural Systems*. Dahlem Konferenzen, pp. 139-159.
22. Palka, J., Lawrence, P.A., and Hart, H.S. 1979. Neural projection patterns from homeotic tissue of *Drosophila* studied in *bithorax* mutants and mosaics. *Dev. Biol.* **69**: 549-575.
23. Palka, J. 1979a. Theories of pattern formation in insect neural development. *Adv. Insect Physiol.* **14**: 251-349.
24. Palka, J. 1979b. Mutants and mosaics, tools in insect developmental neurobiology. *Symp. Soc. Neurosci.* **4**: 209-227.
25. Anderson, H., Edwards, J.S., and Palka, J. 1980. Developmental neurobiology of invertebrates. *Ann. Rev. Neurosci.* **3**: 97-139.
26. Palka, J., and Schubiger, M. 1980. Formation of central patterns by receptor cell axons. In Siddiqi, O., Babu, P., Hall, L.M., and Hall, J.C. (Eds.), *Development and Neurobiology of Drosophila*. Plenum, pp. 223-246.
27. Palka, J., Schubiger, M., and Hart, H.S. 1981. The path of axons in *Drosophila* wings in relation to compartment boundaries. *Nature* **294**: 447-449.
28. Burt, R., and Palka, J. 1982. The central projections of mesothoracic sensory neurons in wild type *Drosophila* and *bithorax* mutants. *Dev. Biol.* **90**: 99-109.
29. Palka, J. 1982a. Genetic manipulation of sensory pathways in *Drosophila*. In Spitzer, N.C. (Ed.), *Neuronal Development*. Plenum, pp. 121-170.
30. Palka, J. 1982b. Compartments and axon paths in *Drosophila*. In Goodman, C.S., and Pearson, K.G. (Eds.), *Neuronal Development: Cellular Aspects in Invertebrates*. *Neurosci. Res. Bull.* **20**: 835-838.
31. Cole, E.S., and Palka, J. 1982. The pattern of campaniform sensilla on the wing and haltere of *Drosophila melanogaster* and several of its homeotic mutants. *J. Embryol. exp. Morph.* **71**: 41-61.
32. Palka, J., and Ghysen, A. 1982. Segments, compartments and axon paths in *Drosophila*. *Trends Neurosci.* **5**: 382-386.
33. Palka, J., Schubiger, M., and Ellison, R.L. 1983. The polarity of axon growth in the wings of *Drosophila melanogaster*. *Dev. Biol.* **98**: 481-492.
34. Palka, J., Schubiger, M., and Murray, M.A. 1984. Peripheral neurogenesis in *Drosophila*. *BioScience* **34**: 318-321.
35. Murray, M.A., Schubiger, M., and Palka, J. 1984. Neuron differentiation and axon growth in the developing wing of *Drosophila melanogaster*. *Dev. Biol.* **104**: 259-273.
36. Palka, J. 1984. Precision and plasticity in the insect nervous system. *Trends Neurosci.* **7**: 455-456.
37. Schubiger, M., and Palka, J. 1985. Genetic suppression of putative guidepost cells: Effect on establishment of nerve pathways in *Drosophila* wings. *Dev. Biol.* **108**: 399-410.
38. Blair, S.S., and Palka, J. 1985a. Axon guidance in cultured wing discs and disc fragments of *Drosophila*. *Dev. Biol.* **108**: 411-419.
39. Blair, S.S., and Palka, J. 1985b. Axon guidance in the wings of *Drosophila*. *Trends Neurosci.* **8**: 284-288.
40. Blair, S.S., Murray, M.A., and Palka, J. 1985. Axon guidance in cultured epithelial fragments of the *Drosophila* wing. *Nature* **315**: 406-409.
41. Palka, J. 1985. Factors influencing neural differentiation in the periphery. In Cohen, M.J., and Strumwasser, F. (Eds.), *Comparative Neurobiology: Modes of Communication in the Nervous System*. Wiley, pp. 7-24.

42. Schubiger, M., and Palka, J. 1986. Axonal polarity in *Drosophila* wings with mutant cuticular polarity patterns. *Dev. Biol.* **113**: 461-466.
43. Palka, J., Malone, M.A., Ellison, R.L., and Wigston, D.J. 1986. Central projections of identified *Drosophila* sensory neurons in relation to their time of development. *J. Neurosci.* **6**: 1822-1830.
44. Palka, J. 1986. Neurogenesis and axonal pathfinding in invertebrates. *Trends Neurosci.* **9**: 482-485.
45. Palka, J. 1986. Epithelial axon guidance in *Drosophila*. *J. Neurobiol.* **17**: 581-584.
46. Palka, J. 1987. Axon guidance in the insect periphery. *Develop.* **99**: 307-310.
47. Schubiger, M., and Palka, J. 1987. Changing spatial patterns of DNA replication in the developing wing of *Drosophila*. *Dev. Biol.* **123**: 145-153.
48. Blair, S.S., Murray, M.A., and Palka, J. 1987. The guidance of axons from transplanted neurons through aneural *Drosophila* wings. *J. Neurosci.* **7**: 4165-4175.
49. Dickinson, M.H., and Palka, J. 1987. Physiological properties, time of development, and central projections are correlated in the wing mechanoreceptors of *Drosophila*. *J. Neurosci.* **7**: 4201-4208.
50. Palka, J., and Schubiger, M. 1988. Genes for neural differentiation. *Trends Neurosci.* **11**: 515-517.
51. Blair, S.S., and Palka, J. 1989. Mosaic *Drosophila* wings reveal regional heterogeneity in the guidance of ectopic axons. *J. Neurobiol.* **20**: 55-68.
52. Palka, J., Schubiger, M., and Schwaninger, H. 1990. Neurogenic and antineurogenic effects from modifications at the *Notch* locus. *Develop.* **109**: 167-175.
53. Giangrande, A., and Palka, J. 1990. Genes involved in the development of the peripheral nervous system of *Drosophila*. *Sem. Cell Biol.* **1**: 197-209.
54. Edwards, J.S., and Palka, J. 1991. Insect neural evolution - A fugue or an opera? *Sem. Neurosci.* **3**: 391-398.
55. Palka, J., Whitlock, K.E., and Murray, M.A. 1992. Guidepost cells. *Curr. Opinion Neurobiol.* **2**: 48-54.
56. Linder, T.M., and Palka, J. 1992. A student apparatus for recording action potentials in the cockroach leg. *Am. J. Physiol.* **262** (*Adv. Physiol. Ed.* **7**): S18-S22.
57. Blair, S.S., Giangrande, A., Skeath, J.B., and Palka, J. 1992. The development of normal and ectopic sensilla in the wings of *hairy* and *Hairy wing* mutants of *Drosophila*. *Mech. Dev.* **38**: 3-16.
58. Giangrande, A., Murray, M.A., and Palka, J. 1993. Development and organization of glial cells in the peripheral nervous system of *Drosophila melanogaster*. *Develop.* **117**: 895-904.
59. Palka, J. 1993. Neuronal specificity and its development in the *Drosophila* wing disc and its derivatives. *J. Neurobiol.* **24**: 788-802.
60. Schubiger, M., Feng, Y., Fambrough, D.M., and Palka, J. 1994. A mutation of the *Drosophila* sodium pump a subunit gene results in bang-sensitive paralysis. *Neuron* **12**: 373-381.
61. Whitlock, K.E., and Palka, J. 1995. Development of wing sensory axons in the central nervous system of *Drosophila* during metamorphosis. *J. Neurobiol.* **26**: 189-204.
62. Murray, M.A., Fessler, L.I., and Palka, J. 1995. Changing distributions of extracellular matrix components during early wing morphogenesis in *Drosophila*. *Dev. Biol.* **168**: 150-165.
63. Dickinson, M.H., Hannaford, S., and Palka, J. 1997. The evolution of insect wings and their sensory apparatus. *Brain Behav. Evol.* **50**: 13-24.

64. Nakamura, M., Baldwin, D., Hannaford, S., Palka, J., and Montell, C. 2002. Defective proboscis extension response (dpr), a member of the Ig superfamily required for the gustatory response to salt. *J. Neurosci.* **22**: 3463-3472.

Please note that papers written by graduate students working in my laboratory generally do not carry my name unless I have participated directly in the research.