

Donald F. Ready

Curriculum Vitae

Professor (1997)
Department of Biological Sciences
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Education

B. A.	Biology	Columbia University	1971
Ph.D.	Biology	California Institute of Technology, Pasadena, CA	1976

Academic Positions

Postdoctoral Fellowship, Stanford University Medical School, Dept. of Neurobiology, Stanford, CA.	1977-1980
Assistant Professor of Biology, Princeton University	1980-1987
Assistant Professor of Biology, Purdue University	1988-1992
Associate Professor, Department of Biological Sciences, Purdue University	1992-1997
Professor of Biology, Purdue University	1997-Present

Professional Organizations

1992-1995	Panel Member, NSF Developmental Neuroscience
1996-1997	Special Review Panel, National Eye Institute
1998-2001	Editorial Advisory Board, Development

Honors and Awards

NIH Postdoctoral Fellowship	
Albert B. Sloan Research Fellow	
Purdue University Seeds of Success Award	2005

Publications

1. Ready, D. F., Hanson, T. E. and Benzer, S. 1976. Development of the *Drosophila* retina, a neurocrystalline lattice. *Dev Biol* 53: 217-240.
2. Harris, W. A., Ready, D. F., Lipson, E. D., Hudspeth, A. J. and Stark, W. S. 1977. Vitamin A deprivation and *Drosophila* photopigments. *Nature* 266: 648-650.
3. Lebovitz, R. M. and Ready, D. F. 1986. Ommatidial development in *Drosophila* eye disc fragments. *Dev Biol* 117: 663-671.
4. Tomlinson, A. and Ready, D. F. 1986. Sevenless: A Cell-Specific Homeotic Mutation of the *Drosophila* Eye. *Science* 231: 400-402.
5. Tomlinson, A. and Ready, D. F. 1987 . Cell fate in the *Drosophila* ommatidium. *Dev Biol* 123: 264-275.
6. Tomlinson, A. and Ready, D. F. 1987 . Neuronal differentiation in *Drosophila* ommatidium. *Dev Biol* 120: 366-376.
7. Cagan, R. L. and Ready, D. F. 1989 . Notch is required for successive cell decisions in the developing *Drosophila* retina. *Genes Dev* 3: 1099-1112.
8. Cagan, R. L. and Ready, D. F. 1989 . The emergence of order in the *Drosophila* pupal retina. *Dev Biol* 136: 346-362.
9. Ready, D. F. 1989. A multifaceted approach to neural development. *Trends Neurosci* 12: 102-110.
10. Wolff, T. and Ready, D. F. 1991 . Cell death in normal and rough eye mutants of *Drosophila*. *Development* 113: 825-839.
11. Wolff, T. and Ready, D. F. 1991 . The beginning of pattern formation in the *Drosophila* compound eye: the morphogenetic furrow and the second mitotic wave. *Development* 113: 841-850.
12. Leonard, D. S., Bowman, V. D., Ready, D. F. and Pak, W. L. 1992. Degeneration of photoreceptors in rhodopsin mutants of *Drosophila*. *J Neurobiol* 23: 605-626.
13. Ready, D. F., Bowman, V., Ferreira, P. and Pak, W. L. 1992. Mutations that cause photoreceptor degeneration in *Drosophila*. *Experimental Eye Research* 55: S146.
14. Kumar, J. P. and Ready, D. F. 1994. The role of rhodopsin in the morphogenesis and maintenance of the *Drosophila* photoreceptor. *Investigative Ophthalmology and Visual Science* 35: 1609.
15. Kumar, J. P. and Ready, D. F. 1995 . Rhodopsin plays an essential structural role in *Drosophila* photoreceptor development. *Development* 121: 4359-4370.
16. Kumar, J. P. and Ready, D. F. 1995 . Photoreceptor degeneration in *Drosophila* rhodopsin mutants. *Investigative Ophthalmology and Visual Science* 36: S918.
17. Longley, R. L., Jr. and Ready, D. F. 1995. Integrins and the development of three-dimensional structure in the *Drosophila* compound eye. *Dev Biol* 171: 415-433.
18. Fan, S. S. and Ready, D. F. 1997. Glued participates in distinct microtubule-based activities in *Drosophila* eye development. *Development* 124: 1497-1507.
19. Kumar, J. P., Bowman, J., O'Tousa, J. E. and Ready, D. F. 1997. Rhodopsin replacement rescues photoreceptor structure during a critical developmental window. *Dev Biol* 188: 43-47.
20. Chang, H. Y. and Ready, D. F. 2000. Rescue of photoreceptor degeneration in rhodopsin-null *Drosophila* mutants by activated Rac1. *Science* 290: 1978-1980.
21. Karagiosis, S. A. and Ready, D. F. 2002. Moesin is critical for rhabdomere morphogenesis in the developing *Drosophila* retina. *Molecular Biology of the Cell* 13: 480a.
22. Pellikka, M., Tanentzapf, G., Pinto, M., Smith, C., McGlade, C. J., Ready, D. F. and Tepass, U. 2002. Crumbs, the *Drosophila* homologue of human CRB1/RP12, is essential for photoreceptor morphogenesis. *Nature* 416: 143-149.

23. Sang, T. K. and Ready, D. F. 2002. Eyes closed, a *Drosophila* p47 homolog, is essential for photoreceptor morphogenesis. *Development* 129: 143-154.
24. Satoh, A. K., Ozaki, K. and Ready, D. F. 2002. Rab11 mediates post Golgi trafficking of Rhodopsin to the photosensitive apical membrane, rhabdomere, through multivesicular bodies in *Drosophila* photoreceptors. *Molecular Biology of the Cell* 13: 505a.
25. Karagiosis, S. A. and Ready, D. F. 2004. Moesin contributes an essential structural role in *Drosophila* photoreceptor morphogenesis. *Development* 131: 725-732.
26. Satoh, A. K., and D. F. Ready. 2005. Arrestin1 mediates light-dependent rhodopsin endocytosis and cell survival. *Current Biology* 15:1722-1733.
27. Li, B. X., Satoh, A. K. and Ready, D. F. 2007. Myosin V, Rab11, and dRip11 direct apical secretion and cellular morphogenesis in developing *Drosophila* photoreceptors. *J Cell Biol* 177: 659-669..
28. Liu, C. H., Satoh, A. K., Postma, M., Huang, J., Ready, D. F. and Hardie, R. C. 2008. Ca²⁺-dependent metarhodopsin inactivation mediated by calmodulin and NINAC myosin III. *Neuron* 59: 778-789.
29. Satoh, A. K., Li, B. X., Xia, H. and Ready, D. F. 2008. Calcium-activated Myosin V closes the *Drosophila* pupil. *Curr Biol* 18: 951-955.

Book Chapters

- Ready, D.F., A. Tomlinson, and R.M. Lebovitz. 1985. Building an ommatidium: geometry and genes, pp 97-125. In S.R. Hilfer and J.B. Sheffield (eds.), *Development of Order in the Visual System*. Springer-Verlag, New York.
- Wolff, T. and D.F. Ready. 1993. Pattern formation in the *Drosophila* retina, pp. 1277-1325. in M. Bate and A. Martinez-Arias (eds), *Development of Drosophila*, Cold Spring Harbor Laboratory Press, New York.
- Ready, D.F. 2002. *Drosophila* compound eye morphogenesis: Blind mechanical engineers? in K. Moses (ed.), *Results and Problems in Cell Differentiation*, Vol. 37, Springer-Verlag, Heidelberg.
- Ready, D. F. and Ulrich Tepass. 2004. Crumbs-dependent epithelial organization in retinal morphogenesis and disease, pp 7-28. In David S. Williams (ed.), *Photoreceptor Cell Biology and Inherited Retinal Degenerations*.