John Postlethwait, PhD

Professor, Department of Biology (University of Oregon-Institute of Neuroscience)

NSF-NIEHS Oceans & Human Health Center Role: External Advisory Committee Member (EAC)

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Education

- BS 1966, Purdue
- Ph.D., 1970, Case Western Reserve

Research Interests

Genetic regulation of animal development including development of the nervous system, the mechanisms of sex determination, the origin of novel morphologies in evolution and the evolution of the vertebrate genome.

Representative Publications

- Cresko, W., Y.-L. Yan, D. Baltrus, A. Singer, A. Rodriguez-Mari, and J.H. Postlethwait (2003) Genome duplication, subfunction partitioning, and lineage divergence: *Sox9* in stickleback and zebrafish. *Dev. Dyn.*, in press.
- Fredriksson, R., E.T. Larson, Y.-L. Yan, J.H. Postlethwait, and D. Larhammar (2003) Novel neuropeptide Y Y2-like receptor subtype in zebrafish and frogs supports early vertebrate chromosome duplications. *J. Mol. Evol.*, in press.
- Cañestro, C., S. Bassham, and J.H. Postlethwait (2003) Sequence of the *Ciona* genome and chordate evolution. *Genome Biol.* 4:208.
- Liu, D., H. Chu, L. Maves, Y.-L. Yan, P.A. Morcos, J.H. Postlethwait and M. Westerfield (2003) Fgf3 and Fgf8 dependent and independent transcription factors are required for otic placode specification. *Development* 130:2213-2224.
- Masumoto, J., W. Zhou, F.F. Chen, F. Su, J.Y. Kuwada, E. Hidaka, T. Katsuyama, J. Sagara, S. Taniguchi, P. Ngo-Hazelett, J.H. Postlethwait, G. Nunez, and N. Inohara (2002) Caspy: A Zebrafish caspase activated by ASC oligomerization required for pharyngeal Arch development. *J. Biol. Chem.* 278(6):4268-4276.
- Nolte, C., A. Amores, E. Nagy Kovacs, J. Postlethwait, and M. Featherstone (2002) The role of retinoic acid response element in establishing the anterior neural expression border of *Hoxd4* transgenes. *Mech. Dev.* 120:325-335.
- Paw, B.H., A.J. Davidson, Y. Zhou, R. Li, S.J. Pratt, C. Lee, N.S. Trede, A. Brownlie, A. Donovan, E.C. Liao, J.M. Ziai, A.H. Drejer, W. Guo, C.H. Kim, B. Gwynn, L.L. Peters, M.N. Chernova, S.L. Alper, A. Zapata, S.N. Wickramasinghe, M.J. Lee, S.E. Lux, A. Fritz, J.H. Postlethwait, and L.I. Zon (2003) Cell-specific mitotic defect and dyserythropoiesis associated with erythroid band 3 deficiency. *Nat. Genet.* 34:59-64.
- Rhinn, M., K. Lun, M. Werner, A. Amores, Y.-L. Yan, J. Postlethwait, and M. Brand (2003) Cloning, expression and relationship of zebrafish *gbx1* and *gbx2* genes to Fgf signaling during early brain development. *Mech. Dev.* 120:919-936.

- Ruuskanen, J., H. Xhaard, A. Marjamäki, E. Salaneck, T. Salminen, Y.-L. Yan, J.H. Postlethwait, M.S. Johnson, D. Larhammar, and M. Scheinin (2003) Identification of duplicated fourth {alpha} $_2$-adrenergic receptor subtype by cloning and mapping of five receptor genes in zebrafish. *Mol. Biol. Evol*. 10: prepublished on-line.
- Zhao, C.T., K.H. Shi, Y. Su, L.Y. Liang, Y. Yan, J. Postlethwait, and A.M. Meng (2003) Two variants of zebrafish p100 are expressed during embryogenesis and regulated by Nodal signaling. *FEBS Lett.* 543:190-195.
- Canfield, V.A., B. Loppin, B. Thisse, C. Thisse, J.H. Postlethwait, M.-A.P.K. Mohideen, S.J.R. Rajarao, and R. Levenson (2002) Na,K-ATPase α and β subunit genes exhibit unique expression patterns during zebrafish embryogenesis. *Mech. Dev.* 116:51-59.

More Info:

http://www.neuro.uoregon.edu/ionmain/htdocs/faculty/postleth.html

http://www.neuro.uoregon.edu/postle/PostleLab.html

http://www.neuro.uoregon.edu/postle/LabPubs.html