

## George Howard Burrows

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### Education:

- Ph.D. Physiology & Biophysics, University of Vermont, 1979  
B.S. Biology (Math/Chemistry/Physics), Oberlin College, 1971  
H.S. Biology, Phillips Exeter Academy, 1967

### Current/recent Employment:

- 2001-present Senior Researcher  
Autonomous Undersea Systems Institute, Lee, NH  
1997-2001 Manager Level 3 Engineer  
Raytheon ITSS Corporation, Lanham, MD  
1992 - 1998 Senior Design Analyst  
Window Book, Inc., Cambridge, MA  
1987-1991 Owner  
Durham Research, Durham, NH  
1983 - 1987 NIH Staff Fellow  
Neurology Institute, Bethesda, MD

### Selected Professional Activities:

**ESIP Federation.** Chair, Partnership Committee, Current; Federation Vice President, 1999; Chair Governance Working Group, 1998; Co-Chair Metrics Working Group, 1998; Earth Science Information Partner with IBM and JHU developing public health applications.

**Digital Libraries.** Chair, Policy Committee and Assembly of Projects, for NSF's National Science, Technology, Engineering, and Mathematics Education Digital Library (NSDL) 2003-4; Neuroscience Advisory Group for the NIH NIDA/NIMH Neuroscience Digital Library; Local Arrangements Chair, IEEE Advances In Digital Libraries annual meeting, 2000.

**Electronic media.** Designed, produced, and published numerous electronic hypertext documents for small business, government, banking, and education. Author of bulletins for International Data Corporation on Hypertext and Hypermedia. Co-founder of the Boston Computer Society Hypermedia Group.

**Indexing.** Global index of 600 reports and bulletins on the computer industry for International Data Corporation. "X Window System" (700 pp) by Digital Press. "VAX/VMS: Writing Real Programs in DCL" (365 pp) by Digital Press. "Pharmaceutical Dosage Forms and Drug Delivery Systems" (444 pp) by Lea and Febiger.

**Image analysis.** Extended the LISPIX image analysis system and applied it to human brain scans and 2-D electrophoresis gels using LISP and FORTRAN to help build tools for image understanding and user interfaces for an interdisciplinary neuroscience research.

**Science.** PhD and fifteen publications examining computer applications for studying nerves in culture and Positron Emission Tomography images of brain metabolism in waking human subjects. Extensive biology and geology field study of mice, oysters, pollen, and glaciers.

**Selected Publications :**

- Raskin RG, Burrows H, Conover H, Gallagher J, and Rhyne T (2002). *Discovering and accessing data from the Federation of Earth Science Information Partners*. *Eos*, Nov 19, 2002.  
[http://www.agu.org/eos\\_elec/020137e.html](http://www.agu.org/eos_elec/020137e.html)
- Burrows GH (2000). *Prototype Federation of Earth Science Information Partners: Report from the Trenches*. Center for Global Change Science Newsletter 6:1.
- Burrows GH, Hoban S, Harberts R, Lal N (1998). *Framework for Scientific Communication in Earth and Space Science*. in Christine S. Nielsen and Joseph R. Herkert, eds., "Proceedings, 1998 Socioeconomic Dimensions of Electronic Publishing Workshop: Meeting the Needs of the Engineering and Scientific Communities," Piscataway, N.J.: Institute of Electrical and Electronics Engineers.
- Ellen Staelin (1989). The Concept of Hypermedia. New Software Technologies #3937, International Data Corporation.
- Burrows GH (1988). What Is Hypermedia? Issues and Implications. *HyperView* 1:3.
- Chase TN, Tamminga CA, Burrows H (1988). Positron emission tomographic studies of regional cerebral glucose metabolism in idiopathic dystonia. *Adv Neurol*. 50:237-41.
- Chase TN, Burrows GH, Mohr E (1987). Cortical glucose utilization patterns in primary degenerative dementias of the anterior and posterior type. *Arch Gerontol Geriatr*. 6(3):289-97.
- Chase TN, Geoffrey V, Gillespie MM, Burrows GH (1986). Structural and functional studies of Gilles de la Tourette Syndrome. *Rev Neurol* 142:851-5.
- Burrows GH, Bright D, Chase TN (1984). Segmentation of PET brain images into anatomically meaningful regions. *IEEE Medical Images and Icons* pp 262-263.
- Navon G, Burrows GH, Cohen JS (1983). Differences in metabolite levels upon differentiation of intact neuroblastoma x glioma cells observed by proton NMR spectroscopy. *FEBS Letters* 162:320-323.
- Burrows GH, Barnea A (1983). Two distinct events underlie the MgATP-stimulated release of luteinizing hormone releasing hormone from isolated hypothalamic granules. *Brain Research Bulletin* 10:391-394.
- Burrows GH, Barnea A (1982). Copper stimulates the release of luteinizing hormone releasing hormone from isolated hypothalamic granules. *Endocrinology* 110:1456-1458.
- Burrows GH, Porter JC, Barnea A (1981). A model system for the study of the release of luteinizing hormone releasing hormone from isolated storage granules. *Journal of Neurochemistry* 36:753-758.
- Burrows GH, Myers MM, Whittemore SR, Hendley ED (1981). Calcium-sensitive accumulation of norepinephrine in rat cerebral cortex. *European Journal of Pharmacology* 69:301-312.
- Porter JC, Gudelsky GA, Nansel DD, Pilotte NS, Burrows GH, Tilders JH (1980). Pituitary and hypothalamic hormones in pituitary stalk blood. In: Frontiers in Hormone Research.