

# *Department of Neurobiology & Anatomy: Annual Report Guidelines*

**2012**

It is once again time to collect updates for Annual Reports from each of you. The format remains the same from past years. It is late enough in the year to warrant covering the calendar year, plus any items not in your previous report, primarily related to the last months of 2011.

Patti and Cary will be coordinating the process. Patti has your reports from last year if you need a copy for modifications and will later use your new reports to update the e-CV for you, if requested to do so.

Please use the following checklist when compiling your material:

- Updated Annual Report (your component)
- Updated NIH Bio-sketch

Photograph (please check one)

- Scan new photograph (please submit Hard Copy to Kathy)
- Please use the graphic file (.jpg or .psd) (please submit via email)
- Schedule appointment for a digital photo to be taken  
(Please schedule with Steve Brown)
- Please use the existing photo from my faculty webpage

**When complete**, please submit to **BOTH** Kathy and Gary in MS-Word format. An e-mail attachment is easiest.

**Deadline: November 9, 2012**

Once your report is done please make an appointment with me to review the year, your progress and any novel changes and/or interests, the Department, and whatever else you wish to discuss, plan on the couple of weeks in December leading into the holidays. If you have questions, please call Kathy at extension 5-2557, or send an email directly to me. Thank you!

# Department of Neurobiology & Anatomy Annual Report Guidelines (see example below for style and format, and last year's version of your report)

Name, Degrees  
Title, Department (and secondaries)  
Degree (source), year  
Research title  
Abstract of research interests

I.	<b>Honors and Extramural Activities.</b>
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*Awards and Honors*  
*Leadership Roles in Professional Organizations and Meetings*  
*Grant Review (study section, ad hoc review board.....)*  
*Editorial Positions*  
*Journal review*  
*Memberships*  
*Patents & Inventions*  
*Other*

II.	<b>Teaching Activities at the University of Rochester</b>
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Please provide the following information in the order given:

*Undergraduate Education*  
*Graduate Education*  
*Medical Education*

For each, include:

Course Leadership (director, section leader... with titles)  
Course Participation (lecturer, lab, PBL...with title/subject, and contact hours)  
Advisory Roles (thesis advisor, lab rotation advisor, summer student advisor...)

(*Outside teaching activities should be included under **Extramural Presentations & Workshops***)

III.	<b>Intramural Activities</b>
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*Leadership Roles (Committee Chair....)*  
*Committee Participation*

IV.	<b>Research and Training Grants</b>
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*Title, role, %effort, current Y total direct costs, agency and #, project period.*

V.	<b>Extramural Presentations, Workshops, and Other....</b>
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*Invited seminars & workshops*

*National meetings*

*International meetings*

*Community service*

VI.	<b>Publications</b>
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Include those that are submitted (new this year), but mark them clearly and include where.

*Journal Articles*

*Books and Chapters*

*Reviews*

*Abstracts*

*Pubmed # (NIH)*

## *Sample faculty submission for annual report Department of Neurobiology and Anatomy*

*(this is fictitious: components are taken from several faculty and outdated)*

### **Peter Shrager, Ph.D.**

Professor of Neurobiology and Anatomy (and Pharmacology and Physiology, and Biochemistry and Biophysics)

B.S. (Columbia), 1963; Ph.D. (University of California, Berkeley), 1969.

#### **Research:** *Neuron-Neuroglia interactions*

Propagation of electrical signals with high speed and reliability in nerve fibers depends on a complex interaction between neurons and their associated myelinating glial cells. As a result of this interaction ion channels are clustered at specific sites along the axon. This system is studied in both development and disease. At birth axons have little myelin, but by the end of the first postnatal week both glial ensheathment and ion channel clustering are at an advanced state. In multiple sclerosis myelin is damaged, and ion channel distributions are disrupted. The immune mechanisms responsible for this pathology are not known. This laboratory studies the molecular mechanisms responsible for these phenomena using electrophysiology, immunocytochemistry, molecular biology, and transgenic manipulations. During myelination glial cells have a profound influence on the axonal ion channel distribution. In the peripheral nervous system Schwann cells bind to axons during both development and remyelination. Sodium channels, responsible for the upstroke of the action potential, cluster in the axon membrane adjacent to the tips of Schwann cell processes that are extended during early stages of ensheathment. As Schwann cells grow longitudinally, these channels appear to move with them, ultimately fusing with a neighboring cluster to form a node of Ranvier. Voltage-dependent potassium channels have a reciprocal relationship with sodium channels, and are located primarily in clusters several micrometers on either side of the node. New studies are focused on the central nervous system and combine immunocytochemistry with electrophysiology to determine the distribution and role of ion channels during development of the optic nerve. We seek to determine the cellular and molecular events responsible for ion channel localization and stabilization in the neuronal membrane.

#### **I. Honors and Extramural Activities**

##### *Awards and Honors*

Graduate Student Society Faculty Teaching Award  
Commencement Marshal for the Medical Class of 1998

##### *Leadership Roles in Professional Organizations and Meetings*

Plenary speaker: The concept of the limbic system. Advancing from the ventral striatum to the extended amygdala; A NYAS conference in honor of Dr. Lennart Heimer, October, 1998.

Meeting Organizer: Vestibular Influences on Spatial Orientation—A satellite to the Society for Neural Control of Movement meeting. Princeville, Hawaii, April, 1999.

##### *Grant Review*

ad hoc reviewer: NIH IFCN 7 Study Section

### *Editorial Positions*

Editorial Board: Journal of the Peripheral Nervous System

Board of Co-Editors: Experimental Brain Research

### *Journal review*

American Journal of Physiology

Journal of Physiology

### *Memberships*

Society for Neurosciences

Society for Neural Control of Movement

Association for Research in Vision and Ophthalmology

### *Other*

## **II. Teaching Activities at the University of Rochester**

### *Undergraduate Education*

#### *Graduate Education*

*Course Director: NSC 512, Cellular Neuroscience (core course in neuroscience).*

*NSC 512, 4 lectures for 6 hours total*

*2 labs for 4 hours total*

*Conference Leader: Cell Biology Core Course, 3 hours*

*Thesis Advisor:*

*Nikolaus McFarland, MSTP Program, Neurobiology and Anatomy*

*Postdoctoral Advisor: Zhi-Cheng Xiao, Ph.D.*

#### *Medical Education*

*Course Director: Human Structure and Function*

*Co-Course Director: Oncologic Anatomy, elective course in the Cancer Center*

*MBB: 3 lectures for 3 hours total*

*1 lab for 3 hours*

## **III. Intramural Activities**

### *Leadership Roles*

Chair: CVS, Graduate Recruiting and Training Committee

Chair: Medical School Admissions Committee

### *Committee Participation*

Dean's Research Advisory Committee  
Executive Committee, Neuroscience Graduate Program  
Executive Committee, Department of Neurobiology and Anatomy

#### **IV. Research and Training Grants**

*Neuron-neuroglia interactions*

**Principal Investigator**

NINDS: RO1-NS12345, 2009-2013      \$250,000 TDC current year

*Resource for the Study of Neural Models of Behavior*

**Co-Investigator**

NCRR; P41-RR00011, 2010-2014      \$110,000 TDC, my segment

*Clinical/Experimental Radiation Research Interface Stud., Project 2: Molecular basis for CNS late effects following radiation treatment.*

**Principal Investigator** (Project 2)

NIH: PO1 CA11051-25, 1998-2001      \$150,000 TDC current project year

#### **V. Extramural Presentations and Workshops**

*Pathogenesis of Neuroimmunologic Diseases*

Marine Biological Laboratory, Woods Hole, Massachusetts. August, 1999.

*Medical School Admissions. Beyond the Numbers*

National Association of Prehealth Advisors Biannual Meeting  
Washington, DC June, 1998.

*Localization and Tracking of Auditory and Visual Spatial Targets.*

Assoc. for Research in Otolaryngology, Midwinter Meeting  
St. Petersburg, Florida February, 1999.

#### **VI. Publications**

*Journal Articles*

Vabnick, I. and **Shrager, P.** (1998) Ion channel redistribution and function during development of the myelinated axon. *Journal of Neurobiology*. 37:80-96.

### *Books and Chapters*

**Hansen, J.T.** (1997) Surgical anatomy and embryology of the lower neck and superior mediastnum. In: Falk, S.A., editor. *Thyroid Disease – Endocrinology, Surgery Nuclear Medicine, and Radiotherapy*. Lippincott – Raven, Philadelphia. pp. 15-27.

### *Reviews*

Vabnick, I. And **Shrager, P.** (1998) Ion Channel redistribution and function during development of the myelinated axon. *Journal of Neurobiology*. 37:80-96

### *Abstracts*

Custer, A.W., Poliak, S., Peles, E., Sakurai, T., Grumet, M. and **Shrager, P.** (1999) Proteins association with ion channel clustering during axonal development. *Neuroscience Abstracts* 25:998.

Goltz, H.C., Wada, Y., and **Paige, G.D.** (1999) Human Naso-Occipital Linear Vestibulo-Ocular Reflex (NO-LVOR): Effects of frequency, viewing distance, Gaze Eccentricity and Visual Context. *Assoc. for Research in Vision and Ophthalmology, IOVS* 40: 858.