



The Histochemical Society NEWSLETTER

Winter 2011

Vol.24 No.4

In this Issue....

Letter from
The HCS President • 2

Members in the Spotlight:
Stephen Hewitt • 3
Jose L. Serrano-Velez • 4

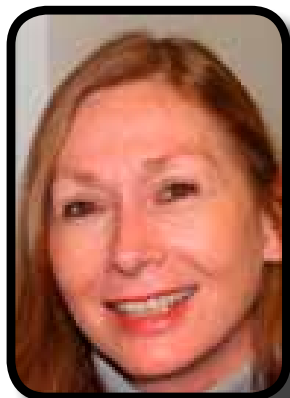
2012 Meeting
Schedule • 5-7

JHC Free Color • 8

Call for Nominations:
HCS Council • 9
ICHC 2012 Awards • 9



A Letter from the HCS President....



Dear Colleagues,

The Histochemical Society continues to evolve, emerging as an important bridge into this post genomic era. A simple search in PubMed for “immunohistochemistry” yields one-half million entries, add in situ hybridization and histochemistry, and the number moves beyond one million. This metric does not fully capture the importance of these approaches but emphasizes their extensive impact on biological knowledge over the past several decades. As new members of FASEB, our voice is now united with 23 other groups to promote and safeguard scientific research in the US.

The 2012 Annual Meeting of the Histochemical Society is promising to be an extraordinary feast of scientific and visual offerings. The setting of the Marine Biological Laboratory at Woods Hole is a unique experience and we hope you will not miss out on this opportunity to learn and communicate with old and new friends. Visit the meeting web page: www.histochemistry2012.org for details on the upcoming meeting.

Part of our mission is to pass on the expertise embodied in our members to the next generation of scientists. We do this in part through our meetings and the short courses.

I hope to see you at the annual meeting in March.

Nancy Sawtell
President, HCS

IMPORTANT LINKS

The Histochemical Society Webpage Link:
www.histochemicalsociety.org

Immunohistochemistry & Microscopy Course Dates: March 18-20, 2012
Immunohistochemistry & Microscopy Course webpage link:
<http://immunohistochem.com/>

Annual Meeting webpage link:
www.histochemistry2012.org

Registration link for Course and Annual Meeting:
<http://www.regonline.com/Register/Checkin.aspx?EventID=1011701>

Awards page Link:
<http://www.histochemicalsociety.org/awards/>

IMPORTANT DATES and DEADLINES

Abstracts: Annual Meeting Submission Deadline: January 20, 2012
Early Registration Deadline for Annual Meeting: February 17, 2012
Awards Submission Deadline: February 12, 2012

Member in the Spotlight...



Stephen M. Hewitt, M.D., Ph.D., is a Clinical Investigator within the Laboratory of Pathology, Center for Cancer Research, National Cancer Institute at the National Institutes of Health, in Bethesda Maryland. He has served as Chief of the Tissue Array Research Program since its inception in 2000, and as Chief of the Applied Molecular Pathology Laboratory since its creation in 2008.

He received his bachelor's degree in philosophy from the Johns Hopkins University in 1988, and his Ph.D. in genetics from the University of Texas, Graduate School of Biomedical Sciences in 1995, having completed his thesis in the laboratory of Grady Saunders at the University of Texas M.D. Anderson Cancer Center. He completed his M.D. in 1996 at the University of Texas Medical School at Houston, and his residency in Anatomic Pathology within the Laboratory of Pathology at the National Cancer Institute. He is a board certified Anatomic Pathologist and Fellow of the College of American Pathologists.

Dr. Hewitt is a member of the Clinical Laboratory Standards Institute Immunology & Ligand Assay Consensus Committee, having served as co-chair of the Subcommittee on Immunohistochemical Assays.

He is a Councilor of The Histochemical Society, serves on the HCS Program Committee and has served on the faculty of the HCS short course on Immunohistochemistry and Microscopy. He is a consultant to the Hematology and Pathology Devices Panel, Center for Devices and Radiological Health, Food and Drug Administration. Dr. Hewitt has co-authored more than 160 articles and serves on the editorial board of four peer-reviewed Journals. He is co-inventor on two patents, and solo inventor on one patent - which is currently undergoing commercialization.

Dr. Hewitt's research interests are in the development of tissue-based biomarkers for cancer diagnosis, prognosis and prediction of response to therapy. Specific areas of concentration include tissue microarrays, tissue proteomics, image analysis, and cancers of the aerodigestive and urogenital tracts.

His research is at the forefront in bridging the past with the future. He is leading efforts to maximize extraction of RNA from formaldehyde fixed and paraffin embedded (FFPE) specimens. The extensive resource of biological material archived as FFPE specimens stores vast amounts of information about human health and disease. The

rapidly advancing high-throughput profiling technologies make it possible to mine the molecular secrets embedded in this repository.

However, methods such as RNA sequencing require RNA of uniformly high quality. This presents a challenge in exploiting these archived samples for the new technologies. He is working toward identifying the parameters that influence the quality of the protein and nucleic acids recoverable from these FFPE specimens and the methodology to achieve the highest quality samples from the current archived materials, critical steps required to fully exploit this resource.

(Editor's Note: See October 2011 Genome Technology (www.genomeweb.com) for a report on Stephen Hewitt's work. His review article appeared in the April 2011 issue of JHC 59(4): 356-365 and was the first to deal with the issue of mechanism of loss of antigenicity in archival formalin-fixed tissue. This study revealed that inadequate tissue processing, resulting in retention of endogenous water in tissue sections, results in antigen degradation.)

Member in the Spotlight...



Puerto Rico where he attended public schools, and he earned a BS in biology from the University of Puerto Rico-Rio Piedras. As an undergraduate, he participated in the Transfer to Research Careers summer program and was a Howard Hughes summer fellow in Dr. Michael Rosbash's laboratory at Brandeis University. After graduating and prior to joining the Rosa-Molinar laboratory, he worked in laboratories at UPR-RP and the Institute of Neurobiology, University of Puerto Rico School of Medicine.

As President of the Biology Graduate Student Association, he worked with the UPR-RP Chancellor to organize a forum series on Responsible Conduct in Science that featured the National Science Foundation Inspector General; he now serves as the graduate student representative to the Dean of Graduate Studies and Research.

Jose L. Serrano-Velez has been a Bioinformatics and Visualization Specialist in the Eduardo Rosa-Molinar laboratory for 11 years. He is responsible for managing the 3D fluorescence optical sectioning microscopy technologies housed in the laboratory, including laser scanning confocal microscopy and structured illumination microscopy all which provide 3D information about the neuron. He is also responsible for image collection, semi-automatic segmentation, tracing, analysis, and archiving of 3D images.

For the last two years, he has taught the use of light and fluorescence microscopy technologies in The Histochemical Society (HCS) Short Course, Immunohistochemistry and Microscopy, offered at

the Marine Biological Laboratory, Woods Hole, MA and he serves on the HCS Awards and Membership Committee.

He is a PhD degree candidate in the biology program at UPR-RP and hopes to graduate in 2012. He uses 3D fluorescence optical sectioning microscopy technologies combined with immunofluorescence to elucidate neuron shape and the 3D dendritic architecture of neurons in the vertebrate central nervous system, both of which are essential to understanding the general principles determining neurons' distinct 3D dendritic architecture and to advancing knowledge of synaptic and neural circuit plasticity.

Jose grew up in rural Adjuntas,



MBL Laboratory Tour 2011

The Histochemical Society 2012 Annual Meeting

Preliminary Program

Tuesday, March 20, 2012

- 2-6 PM** Registration, arrival of participants
6-7 PM Dinner at Swope Dining Room, MBL
7:30-9 PM Welcoming Reception in Loeb Lab Bldg.

Wednesday, March 21st

7-8 AM Breakfast at Swope Dining Room

Session I

QSTORM: Switchable Quantum Dots and Adaptive Optics for Super-Resolution Imaging

- 8:15-9:00 AM** Keynote Presentation: **Scott E. Fraser**, Caltech, Pasadena, CA
(title to be announced)
- 9:00-9:20 AM** J. Winter, The Ohio State University, Columbus, OH
Light-Controlled Quantum Dots for Super-Resolution Imaging
- 9:20-9:40 AM** C. L. Alpert, Museum of Science, Boston, MA
Shedding Light on Collaborative Research: An Experimental Partnership for Enhancing Interdisciplinary Communication and Education in Biological Imaging
- 9:40-10:00 AM** Refreshment break
- 10:00-10:20 AM** E. Brainerd, Brown University, Providence, RI
Confocal and Super-resolution Microscopy of Myofilaments in Zebrafish Muscle
- 10:20-10:40 AM** P. Kner, University of Georgia, Athens, GA
Super-resolution Microscopy in Thick Samples
- 10:40-11:00 AM** G. Yang, Carnegie Mellon University, Pittsburgh, PA
Computational Characterization and Analysis of Spatial Temporal Mitochondrial Dynamics in Drosophila Segmental Nerves
- 11:00-11:30 AM** Discussion of morning session
- 11:30 PM-12:30 PM** Lunch at Swope Dining Room

Session II

ImageQuest: Citizens Advancing Biology with Calibrated Imaging and Validated Analysis

- 12:45-1:30 PM** Plenary Presentation **Robert Marc**, University of Utah, Salt Lake City, UT
Retinal Remodeling
- 1:30-1:50 PM** R. Pless, Washington University, St. Louis, MO
Human-in-the-Loop Annotation of Tracks and Boundaries.
- 1:50-2:10 PM** J. O'Neil-Dunne, University of Vermont, Burlington, VT
An Object-Based Data Fusion Approach to Urban Forest Mapping
- 2:10-2:30 PM** E. West, University of California San Diego, La Jolla, CA
Seeing the Forest Through the Trees: Augmenting Urban Forest Monitors Through Socially Mediated Citizen Science

The Histochemical Society
2012 Annual Meeting *cont.*

Session II continued:

- 2:30-2:50 PM S. Kobourov, University of Arizona, Tuscon, AZ
From Multiple Inaccurate Trajectories to One Accurate Trajectory
- 2:50-3:10 PM C. Grimm, Washington University, St. Louis, MO
A Segmentation Tool for use by Ordinary People
- 3:10-3:30 PM Discussion of Afternoon Session
- 4:00– 3:30 PM **Poster session I**
- 6:00-7:00 PM Dinner at Swope Dining Room
- 7:30 PM **Journal of Histochemistry & Cytochemistry Plenary Presentation**
Richard Hynes, MIT, Cambridge, MA
What is Actually in the Extracellular Matrices that You Stain

Thursday March 22nd

7-8 AM Breakfast at Swope Dining Room

Session III

Biological Shape Spaces I: Transforming Shape into Knowledge

- 9:00-9:45 AM Plenary Presentation: Michael Liebling, University of California, Santa Barbara, CA
(title to be announced)
- 9:45-10:05 AM W. Mio, Florida State University, Tallahassee, FL
On Variation of Biological Shape
- 10:05-10:25 AM C-R Shyu, University of Missouri, Columbia, MO
Visualization and Data Management of Bioshapes Research Activities
- 10:25-10:45 AM C. Fowlkes, University of California Irvine, Irvine, CA
Automatically Discovering Relations between Form and Function
- 10:45 –11:00 AM Refreshment Break
- 11:00-11:20 AM G. Yang, Carnegie Mellon University, Pittsburgh, PA
Nanometer Resolution Characterization of Axonal Cargo Transport in Drosophila Segmental Nerves
- 11:20-11:40 AM S.W. Punyasena, University of Illinois Urbana-Champaign, Urbana, IL
Improving the Taxonomic Resolution, Speed, and Accuracy of Fossil Pollen and Spore Classifications
- 11:40 AM-12:00 PM Discussion of Morning Session
- 12:00-1:00 PM Lunch at Swope Dining Room

Session IV

Biological Shape Spaces II: Transforming Shape into Knowledge

- 1:00-1:45 PM Plenary Presentation: Pat Carter, Washington State University, Pullman, WA
(title to be announced)
- 1:45-2:05 PM R. Mueller, VA Polytechnic Institute and State University, Blacksburg, VA
The Role of Shape in the Biosonar System of Bats
- 2:05-2:25 PM C. Grimm, Washington University, St. Louis, MO.
Using Local Shape Descriptors and Strain to Compare Shape

The Histochemical Society
2012 Annual Meeting *cont.*

Session IV continued:

2:25-2:50 PM S. Rugonyi, Oregon Health and Science University, Portland, OR
Characterization of Cardiac Motion During Early Heart Development.

2:50-3:15 PM Discussion of Afternoon Session

3:30-5:00 PM **Poster session II**

5-6:30 PM Dinner at Swope Dining Room

Thursday evening:

Technology reviews or social event

7:30 PM Chroma Lecture : Bernd Fritsch, University of Iowa, Iowa City, IA
(Title to be announced)

Friday, March 23rd

7-8 AM Breakfast at Swope Dining Room

Session V

Lillie Award Nominees and Their Presentation

8:15-9:00 AM Plenary Presentation: Anthony L. DePass, Long Island University, Brooklyn, NY
(Title TBA)

9:00-9:20 AM To be announced

9:20-9:40 AM To be announced

9:40-10:00 AM To be announced

10:00-10:20 AM Refreshment Break

10:00-10:20 AM To be announced

10:20-10:40 AM Discussion of Morning Session

11:30 AM-12:30 PM Lunch at Swope Dining Room

Session VI

Past-President's Symposium

12:45-1:30 PM Plenary Presentation: George Patterson, NIBIB
(title to be announced)

1:30-1:50 PM John M. Robinson, Ohio State University, Columbus OH
Correlative Fluorescence and Electron Microscopy in Tissue

1:50-2:10 PM Moise Bendayan, University of Montreal, Quebec, Canada
Low Voltage Transmission Electron Microscopy: A Powerful Novel Approach for the Study of Cell Structures

2:10-2:30 PM Eduardo-Rosa Molinar, University of Puerto Rico-Rio Piedras, San Juan, PR
High-throughput Fluorescence-Correlative Three-dimensional Electron Microscopy: Building a Synaptome

2:30-2:50 PM TBA

3:00-4:00 PM Afternoon Technical reviews

4:00-5:30 PM **Poster session III**

6:00-7:00 PM Dinner

7:00 – 9:00 PM Evening Business meeting and Awards

Saturday, March 24th Departure in AM

JHC Free Color Trial Has Been Extended until December 31st, 2011.



All manuscripts submitted between now and December 31st will not incur any processing charges for color images. This savings brings the cost of publishing in JHC below that of most journals, including open access journals. Please consider JHC for your next manuscript and encourage others to do the same.

Visit <http://JHC.sagepub.com> and click on Manuscript Submission to view our Submission Guidelines.

To submit a manuscript, go to :
<http://mc.manuscriptcentral.com/hcs>.



*The Joy of a Job Well Done!
HCS Short Course 2011*

CALL FOR NOMINATIONS – HCS COUNCIL

Nominations are open for the position of Councilor (four year term, beginning at the HCS Annual Business Meeting in 2012 at Woods Hole, MA).

Councilors shall have held membership in the Society for at least

two consecutive years prior to the start of their terms and should have agreed to be placed on the ballot for the election.

Questions about responsibilities of councilors should be directed to the Executive Director of HCS

(wlstahl@uw.edu). Nominations should be sent by December 30, 2011 to the Chair of the Nominating Committee, Dr. Eduardo Rosa-Molinar (ed@hpcf.upr.edu).

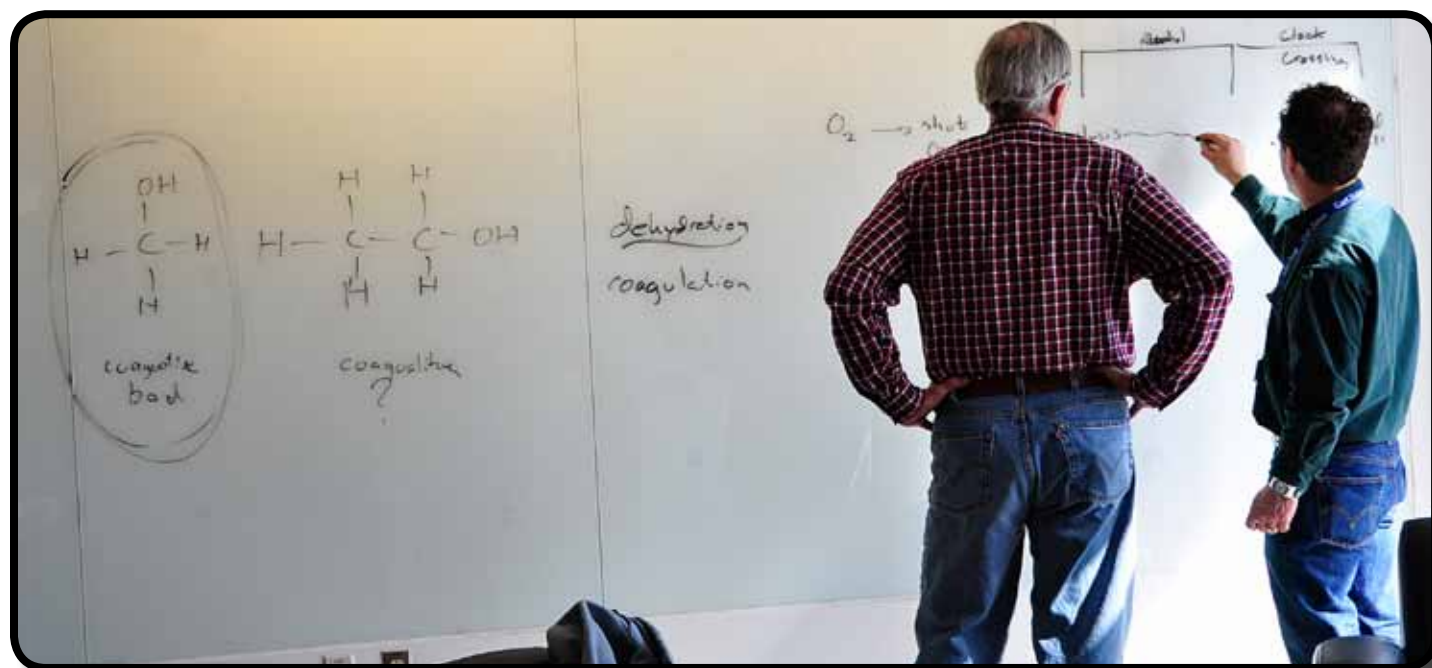
CALL FOR NOMINATIONS – YOUNG HISTOCHEMISTS AWARD at ICHC2012

Nominations are open for candidates for the Young Histochemists Award for the International Congress of Histochemistry and Cytochemistry to be held in Kyoto, Japan, August 26-30, 2012. These awards are offered by the International Federation of Societies for Histochemistry and Cytochemistry

with one award available to each current member society in the Federation. Awardees receive free registration for the meeting and a cash supplement to help with local expenses at the meeting.

HCS nominations with a support letter for the award and general

questions should be directed to Dr. John Shacka (shacka@uab.edu). Nominations deadline: December 30, 2011.



Dick Burry and Stephen Hewitt at work during the 2011 Short Course

HCS Committees 2011-2012

Awards and Membership Committee

- * John Shacka, Chair <shacka@uab.edu>
- * Buffie Clodfelder-Miller <clodbuff@uab.edu>
- * Katherine Halligan <halligk@mail.amc.edu>
- * Takeisha Farmer <tafarmer@imail.i.u.edu>
- * Eduarda Rosa-Molinar <ed@hpcf.upr.edu>
- * Mark Sanders <msanders@umn.edu>
- * Jose Serrano-Velez <wassiny@hpcf.upr.edu>
- * William Stahl, *ex officio* <mail@histochemicalsociety.org>

Finance Committee

- * Margarida Barroso, Chair <barrosm@mail.amc.edu>
- * Charles Frevert <cfrevert@u.washington.edu>
- * Eduardo Rosa-Molinar <ed@hpcf.upr.edu>
- * Allen M. Gown <gown@phenopath.com>
- * Richard Levenson <rml@post.harvard.edu>
- * Doug Rosene <drosene@bu.edu>
- * Heinz-Ulrich Weier <ugweier@lbl.gov>
- * William Stahl, *ex officio* <mail@histochemicalsociety.org>

Program Committee

- * Nancy Sawtell, Chair <sawtn0@cchmc.org>
- * Charles Frevert <cwfrevert@u.washington.edu>
- * Stephen Hewitt <hewitts@helix.nih.gov>
- * Eduardo Rosa-Molinar <ed@hpcf.upr.edu>
- * Doug Rosene <drosene@bu.edu>
- * Tanda Jaipean, *ex officio* <tjaipean@histochemicalsociety.org>
- * Meg McGough, *ex officio* <mmcgough@histochemicalsociety.org>

Publications Committee

- * Vincent Gattone, Chair <vgattone@iupui.edu>
- * Gloria Hoffman <gehoffma@umaryland.edu>
- * Rima Wazen <rima.wazen@umontreal.ca>
- * Kelley Murphy <kmurphy@genetics.utah.edu >
- * James L. Witliff <jim.witliff@louisville.edu>
- * Denis Baskin, *ex officio* <johc@u.washington.edu>
- * Meg McGough, *ex officio* <mmcgough@histochemicalsociety.org>
- * John Couchman, *ex officio* <johc@histochemicalsociety.org>

The Histochemical Society • Newsletter

Journal of Histochemistry and Cytochemistry

Editorial Office

University Station, P.O. Box 85630
Seattle, WA 98145-1630
Phone 425-329-2610
Fax: 425-483-1058
Email: johc@histochemicalsociety.org

Editor-in-Chief

John R. Couchman
Molecular Pathology Section
Department of Biomedical Sciences
BRIC, Københavns Biocenter
ole Maaløes Vj 5
2200 København N
Denmark
Email:
johc@histochemicalsociety.org

Publication Office

Mailing Address:
University Station, P.O. Box 85630
Seattle, WA 98145-1630
Phone: 425-329-2610
Fax: 425-483-1058
Email:
johc@uw.edu

Executive Editor

Denis G. Baskin
Email: baskindg@u.washington.edu

Managing Editor

Tanda Jaipean
Email:
tjaipean@histochemicalsociety.org
johc@uw.edu
Phone: 206-832-7903

Director Of Marketing HCS and JHC

Meg McGough
Email:
mmcgough@histochemicalsociety.org
Phone: 206-832-9853



The Histochemical Society Administrative Office

University Station, P.O. Box 85630
Seattle, WA 98145-1630
Phone: 425-329-2610
Fax: 425-483-1058
Email:
mail@histochemicalsociety.org

Executive Director

William L. Stahl
Email: mail@histochemicalsociety.org

Executive Secretary

Tanda Jaipean
Email:
tjaipean@histochemicalsociety.org



The Histochemical Society Officers and Councilors

Officers

President

SAWTELL, Nancy
Cincinnati Children's Hospital
E-mail: sawtn0@chmcc.org

President-Elect

FREVERT, Charles W. (2009-2012)
VA Puget Sound Medical Center,
Seattle
E-mail: cfrevert@u.washington.edu

Immediate Past-President

ROSA-MOLINAR, Eduardo
University of Puerto Rico-Rio Piedras
E-mail: ed@hpcf.upr.edu

Secretary/Treasurer

BARROSO, Margarida (2011-2015)
Albany Medical College
E-mail: barrosm@mail.amc.edu

Councilors

GATTONE, Vincent (2011-2015)
Indiana University School of Medicine,
Indianapolis
E-mail: vgattone@iupui.edu

HEWITT, Stephen (2009-2013)
National Cancer Institute, NIH
E-mail: genejock@helix.nih.gov

HOFFMAN, Gloria (2008-2012)
Morgan State University
E-mail: gloria.hoffman@morgan.edu

ROSENE, Doug (2010-2014)
Boston University Medical Center
E-mail: drosene@bu.edu

TAATJES, Douglas (2011-2015)
University of Vermont
School of Medicine
E-mail: Douglas.Taatjes@uvm.edu