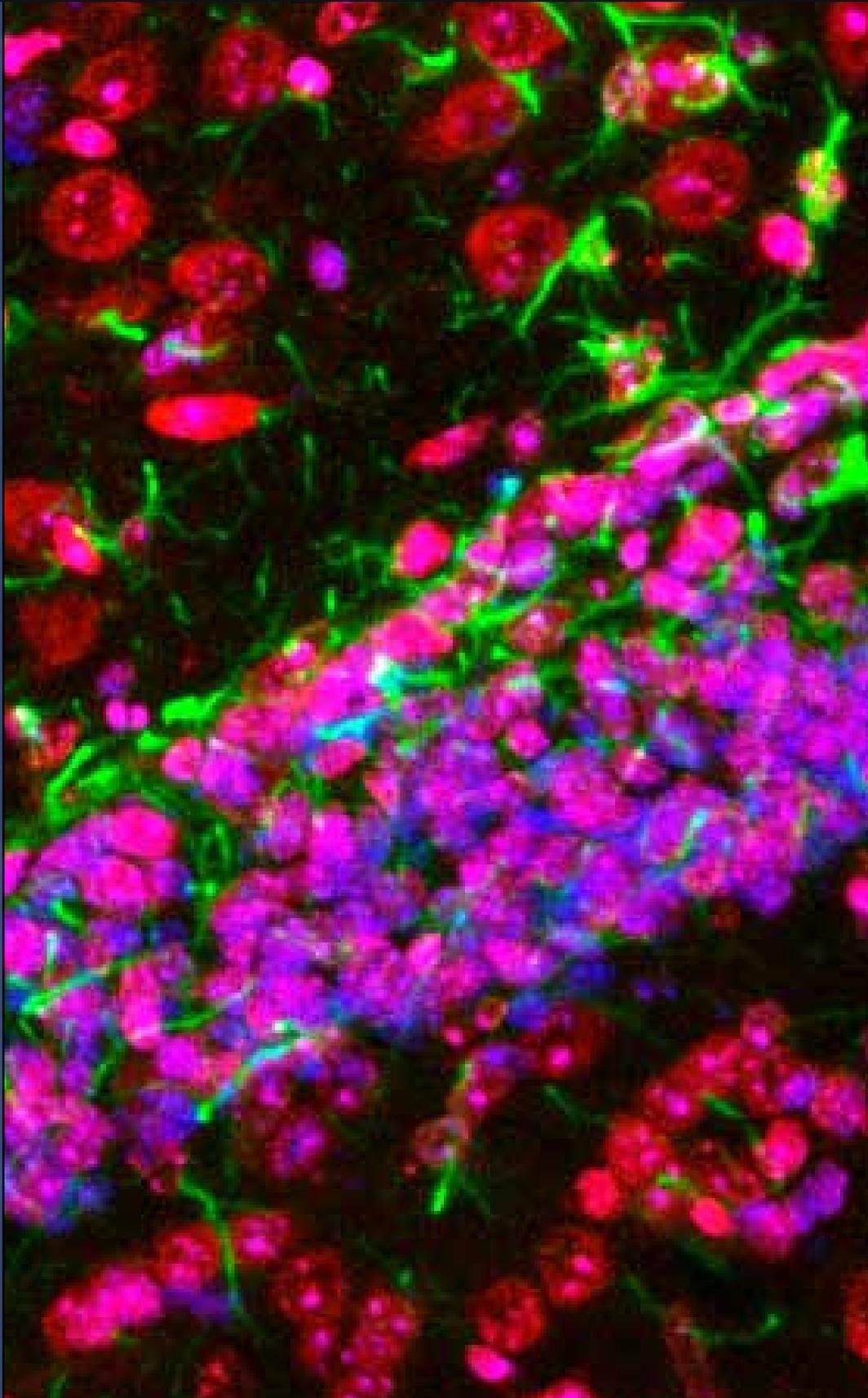




The Histochemical Society NEWSLETTER

Summer 2010

Vol. 23 Number 3



In this issue:

Letter from HCS President
and President-Elect • 2

Publishing Issues • 3

Business Meeting
Minutes • 4

Pictures from the
2010 Meeting • 7

Letter from an
Esteemed Member • 10

Short Course Report • 11

Pictures from the
Short Course • 12

Image collected in the 2010 HCS Short Course

A Message from the HCS President and President-Elect

The Histochemical Society: Looking Into The Future



Eduardo Rosa-Molinar

ants, protein cleavage (neo-epitopes), mutations, polymorphisms have increased dramatically. Developing antibodies with specificity to post-translational modification requires a series of affinity purification steps and a strategy for demonstrating specificity. Using modification-specific antibodies for detection in tissue presents unique challenges and requires awareness of pitfalls that are often overlooked even though they can strongly influence the interpretation of such immunohistochemical experiments. For example, phosphorylation state specific antibodies have a propensity to cross-react with unrelated phosphorylated sites.

The 2011 Histochemical Society Meeting and Short Course on “Immunohistochemistry and Microscopy of Modified Forms of Proteins” will assist participants in overcoming the challenges in characterizing the rapidly growing number of new native proteins and post-translational modifications of proteins in cells and tissues. As we move into the future, we must teach the next generation of students, investigators, and ourselves to meet the challenges of advancing biological and biomedical research. The 2011 Histochemical Society Meeting and the 2011 Immunohistochemistry and Microscopy Short Course will provide an opportunity to do so.

Eduardo Rosa-Molinar, President

Nancy Sawtell, President-Elect

The 2011 Histochemical Society Meeting and the 2011 Immunohistochemistry and Microscopy Short Course will focus on “Immunohistochemistry and Microscopy of Modified Forms of Proteins”. Increasingly, post-translational modifications of proteins are being recognized as crucial regulatory events. The modification of critical amino acid residues can alter protein conformation and thereby their capacity to interact with other proteins or ligands; to be active or inactive in the case of an enzyme; to allow or interfere with gene expression and with many other biological functions. Knowledge of which cells within a tissue and the sub-cellular localization of the modified protein is required for understanding how such modifications contribute to normal and abnormal cell/tissue function.

In recent years, the development and availability of antibodies for the detection of protein modifications such as phosphorylation, acetylation, ubiquitination, splice variants,



Nancy Sawtell

2011 HCS Annual Meeting and Short Course
at
The Marine Biological Laboratory • Woods Hole, MA
March 27 - April 3

Issues Related to Scholarly Publishing



Meg McGough

The Journal of Histochemistry and Cytochemistry was well represented at the Council of Scientific Editors meeting in Atlanta, GA, May 14-18. The title of the meeting was The Heat is On: the Changing Climate of Scholarly Publishing. Sessions illustrated how scholarly publishing is changing in response to technological, economic and political changes. Executive Editor, Denis Baskin and Managing Editor, Tanda Jaipen were both part of the faculty for the Short Course for Publication Management. Denis presented “Perspectives of Editors, Authors, and Reviewers” and Tanda addressed “Organizing Workflows, Increasing Efficiencies, and Working with Vendors”.

Denis was a speaker in the session entitled: The Virtual Office: Establishing and Optimizing the Remote Workplace. He spoke about the JHC’s transition to a commercial publisher and how that is allowing JHC to move to a virtual workspace, and the effects and changes for staff and business operations.

Angela Schmeckebier, Assistant to Kevin Roth, JHC’s Editor-in-Chief, chaired the session Banishing the Ghost: Examining the Role of Science Editors. This session focused on the roles that

ghost writers play in scholarly articles, the effects ghost-writing has on the legitimacy of articles and the type of editorial policies that can ensure transparency, and provide safeguards for journals regarding ghostwriting.

Denis chaired the session Requests for Proposals (RFPs) to Journal Publishers: A Primer for Editorial Professionals. Meg McGough, Marketing and Subscription Director for the JHC, spoke about the JHC’s RFP process and the challenges the RFP process presents to small publishers.

Tanda and Meg attended the HighWire Publisher Meeting at Stanford Univ, in Palo Alto, CA, at the beginning of June. You may recall that HighWire is the JHC’s online publishing partner. While we don’t usually mention this meeting in the newsletter, we thought we might because of the focus of the meeting. We are interested in member’s ideas and thoughts about the HighWire topics and the JHC.

That particular meeting focused on mobile media and in particular e-readers. While many large newspapers have developed applications for e-reading, scholarly publishers are only beginning to put out their journals in e-reader format. HighWire presented many sessions explaining various e-readers, highlighted what some HighWire journals have already done with e-readers and brought in experts for Q & A sessions, explaining e-readers further and elaborating on the wider ramifications of these products.

Among HighWire publishers, the e-readers have become the new gigantic question mark staring us in the face and as you can imagine, the questions abounded. For publishers, e-readers may be even more vexing than moving their journals online because of the speed with which this technology is influencing publishing. As we have seen with smart phones and in particular, the iPhone, this type of digital technology is changing and updating very quickly and we will only have so much time to think about it. We want to be thoughtful and consider it carefully but we also don’t want to wait until it is too late. The question is how to decide.

We would like to hear from HCS members about e-readers and what you think about them. How would it be to read JHC on an e-reader? Do you own one? We are open to all your comments and thoughts. Please email us at: johc@histochemicalsociety.org. We in turn will let you all know what our readers think.

Meg McGough

Marketing & Subscriptions Manager

Journal of Histochemistry & Cytochemistry

JHC Editorial Board & HCS Business Meeting Minutes

March 23, 2010, 3:15pm

Meig's Room , Marine Biological Laboratory, Woods Hole, Massachusetts

Attendance – Officers: President Eduardo Rosa-Molinar, President-Elect Nancy Sawtell, Immediate Past-President Heinz-Ulrich Weier; Secretary/Treasurer Charles Frevert. Councilors: Margarida Barroso, Stephen Hewitt, Gloria Hoffman, Richard Levenson, Doug Rosene, John Shacka, Shan-Rong Shi. Editor-in-Chief (the Journal of Histochemistry and Cytochemistry) Kevin A. Roth; Editor-Designate John R. Couchman; Executive Editor Denis G. Baskin; Executive Director William Stahl; Subscriptions and Marketing Manager Meg McGough; Managing Editor and Executive Secretary Tanda Jaipean. Also in attendance: HCS members and guests.

Absent: Thomas Wight.

1. Call to Order. The meeting convened at 3:15pm.

2. Review 2010 Meeting. The President reported briefly on the Annual Meeting. He noted that the Society has approximately 70 annual meeting attendees and 35 Short Course attendees, and that the program has been well received.

3. Editor's Report. The Editor-in-Chief (EIC), Kevin A. Roth, reported on the status of JHC and introduced the upcoming EIC, Editor-Designate John R. Couchman, who will begin his term January 2011. He also introduced JHC's newest Editorial Board member Mark A. Smith.

He commented that manuscript submissions have been in decline since 2000, and he is maintaining approximately a 50% acceptance rate. JHC continues to have a quick turnaround time from receipt of a manuscript to first decision averaging 25 days, and receipt of a manuscript to acceptance averaging 96 days.

He reported that when looking at the geographical distribution of JHC historically 40% were from Europe, and 30% were from the United States. Currently it is 35% from Europe, 25% from the United States, 9% from Japan, and the remaining 31% are from other countries. The distribution of articles is identified in four main areas: Anatomy/Embryology, Cell Biology, Methods, and Pathology. Of those articles published, 15% received NIH support.

Images and Color Figures in general continue to be a strength in JHC. On average JHC publishes three color figures/pages per article.

The JHC Impact Factor in 2008 was 2.82, and 2.45 for 2009, with a ranking right in the middle among Journals in the Cell Biology field.

4) Finance Committee Report. The Treasurer reported that JHC is in good financial health and the outlook for the future looks good despite current market investment trends.

5) Election Results. The Immediate Past-President reported that in 2009 the Society voted to move to a 2-year term for Society Presidents beginning in 2010 with Eduardo Rosa-Molinar's presidency. He noted that for 2010 three Councilors rotated off the Board, and the election results for open positions were as follows:

President-Elect	Nancy Sawtell (Presidential term beginning 2011)
Councilor	Doug Rosene (New Councilor)
Councilor	John Shacka (Term extended to four years by vote of Council)

JHC Editorial Board & HCS Business Meeting Minutes *cont.*

6) Membership Report. The Membership Committee Chair welcomed all members in attendance and highlighted the 24 new members of the Society who joined in 2010.

Rosedelma Diaz-DeLeon	University of Puerto Rico - Rio Piedras
Takeisha L. Farmer	Indiana University School of Medicine
Christian N. Faulkner	Cincinnati Children's Hospital
Salvador M Guevarra	Tawam Hospital, United Arab Emirates
Katharine Halligan	Albany Medical College
Suzanne King	University of Wisconsin Clinical Science
Andreea C Pataki	Copenhagen Biocenter
Nydia Rivera-Rivera	University of Puerto Rico - Rio Piedras
Jose L. Serrano-Velez	University of Puerto Rico - Rio Piedras
Carlos Toledo-Hernandez	University of Puerto Rico - Rio Piedras
Irma Torres-Vazquez	University of Puerto Rico - Rio Piedras
Ryan G Walker	Cincinnati Children's Hospital Med. Ctr.
Tamara A Franz-Odendaal	Mount Saint Vincent University
Rachel Gonzalez	University of Washington
Kelly L Hudkins	University of Washington
Sanjay Jain	Washington University School of Med.
Elena L O'Brien	Abcam, Inc.
Paulo T Oliveira	University of Sao Paulo
George Perry	University of Texas at San Antonio
Meghan M Reusch	Abcam, Inc.
Sybille Rex	Abcam, Inc.
Tetsuya Sakairi	Mitsubishi Tanabe Pharma. Corp.
Glenn K. Sherer	University of St. Thomas
Xinglong Wang	Case Western Reserve University

7) Awards. The Awards Committee Chair reported on the overwhelming competition this year for HCS and other sponsored awards to attend the HCS Annual Meeting and Short Course. He was pleased to introduce Asiful Islam from Northeastern University, for the 2010 HCS Outstanding Young Investigator Award and brief presentation.

Tibor Barka was then recognized for the Carpenter-Rasch award. Denis G. Baskin reminded attendees how the award came into existence and highlighted Dr. Barka's achievements and contributions.

The Awards Chair then presented the remainder of the awards as follows:

HCS Research Scientist	James Ernst Blevins	University of Washington
	T.A. Franz-Odendaal	Mount Saint Vincent University
	Carlos Toledo-Hernandez	University of Puerto Rico
	Xinglong Wang	Case Western University
		University of Montreal
	Rima Wazen	
HCS Student Travel	Katharine Halligan	Albany Medical College
	Latika Kohli	University of Alabama @ Birmingham
	Noraida Martinez-Rivera	University of Puerto Rico
	Nydia Rivera-Rivera	Universtiy of Puerto Rico

JHC Editorial Board & HCS Business Meeting Minutes *cont.*

	Jose Serrano-Velez	University of Puerto Rico
	Irma Torres-Vazquez	University of Puerto Rico
	Ryan Walker	Cincinnati Children's Hosp Med Ctr
	Jose Serrano-Velez	University of Puerto Rico
Lillie Vector	Andreea Csilla Pataki	University of Copenhagen
	Xinglong Wang	Case Western University
HCS Short Course Scholarship	Katharine Halligan	Albany Medical College
	Andreea Csilla Pataki	University of Copenhagen
FASEB - MARC Awards	Jennifer DeLeon	Long Island University
	Takeisha Farmer	Indiana University
	Marilyne Kpetemey	University of North Texas Health Sci Ctr
	Rosedelma Diaz-DeLeon	University of Puerto Rico
	Bianca Rivera-Pena	University of Puerto Rico

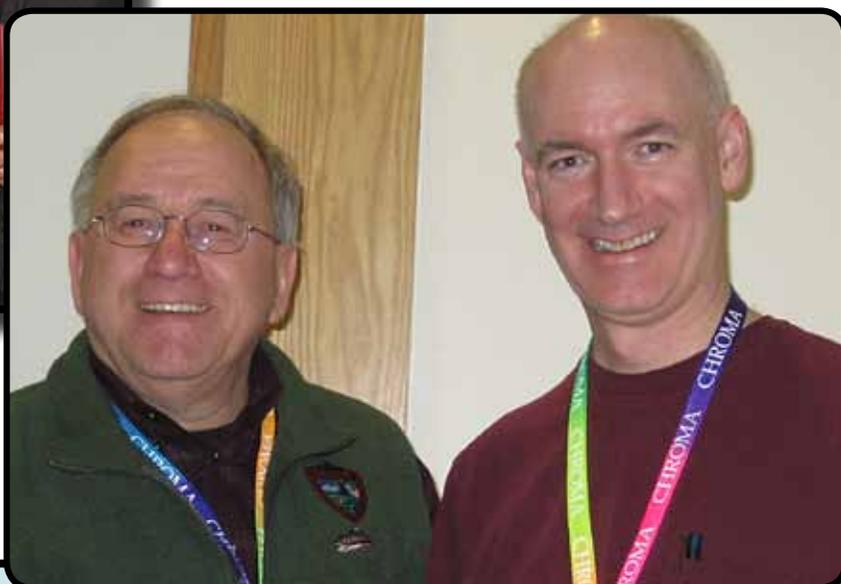
8) New Business. No new business was presented.
The President adjourned the meeting at 4:44pm.



Members and guests at HCS/Journal Of Histochemistry and Cytochemistry Business Meeting at the Marine Biological Laboratory, March 23, 2010



President Ed Rosa-Molinar presents plaque to Shan-Rong Shi, retiring member of the HCS Council.



Denis Baskin introduces David Piston as the J. of Histochemistry and Cytochemistry Plenary Speaker.



Jose Serrano-Velez, Irma Torres-Vazquez and Ryan Walker were recipients of awards at the HCS meeting and Short Course

HCS • 2010



John Shacka, Chair of the Awards and Membership Committee and Rosedelma Diaz-DeLeon, a MARC scholar awardee.



President Ed Rosa-Molinar and Rima Wazen.



Ernie Blevins, Tamara Franz-Odendaal and Carlos Toledo-Hernandez received HCS Research Scientist Awards

HCS • 2010

HCS • 2010



Louie Kerr, Dave Piston, Bill Stahl, Mark Sanders and Ed Rosa-Molinar at the annual HCS meeting.



Thanks MBL!



The HCS Council and Staff greatly acknowledge support of the officers and staff of Marine Biological Laboratory for making our meeting a memorable one.

In particular we thank Louie Kerr and staff for their help with laboratory operations associated with the Short Course and Judi Taylor for help with overall administration, planning and execution of many aspects of our meeting.

Letter from an Esteemed Member of the Society.

October 2009

Ladies and Gentlemen:

It's time to resign. I am now a veteran octosaurian member of the Society for over half a century, I believe. I've known them all, most memorable of them Max Wachstein, whose technique (developed with Meisel) I used to localize phosphatase activity electron microscopically in cardiac muscle in my first paper of my first grant (1962) that initiated an uninterrupted 37 more years of extramural support. At the annual meeting of the Society, Max Wachstein always invited me to a powwow, deux à deux, at his favorite 'Delicatessen' in Brooklyn, reaching deep into that huge barrel for the best of pickles with a huge wooden forceps, sitting, well, à deux, on miniscule chairs at miniscule tables, he telling me stories, among others his despair over Stefan Zweig's envy that he expressed in a letter to one of his friend's about to join bloody WW1 to the 'rattattata' of machine-gun-fire, etc. pp.

And, then, there was the inimitable Alex B. Novkoff, that inveterate bane of all would-be Cyto-Histochemists, incessantly turning his head looking for approval in the audience, and yet religiously giving credit to everybody's and anybody's documentable contributions in his own line of research. He loved the papers I wrote with Joe Blum, still a regular luncheon companion as we speak, on the electron microscopic histochemical localization of an inducible and constitutive acid phosphatase in *Euglena gracilis* (using the Wachstein-Meisel witches brew), which Joe Blum had defined biochemically (*J. Cell Biology*, 1965). In fact occasionally, Alex B. Novikoff addressed me as "Dr. Bloom". In another first, in that study I discovered spindle fibers in *Astasia longa* killing forever the last hold-out of amitotic division in Euglenoids. Dave Robertson at Duke – remember the 'Unit-Membrane'! – and I invited Alex to give a talk at Duke, followed by a memorable dinner.

Unforgettable also, George Palade (and Marilyn Farquhar). I met George Palade for the first time at Duke when he visited Joe Beard's laboratory in which I studied the localization of the ATPase of the chicken myeloblastosis (Leukemia) virus cytochemically, both by light and electron microscopy. (Joe Beard had studied at the Rockefeller under Payton Rous and Shope.) My ensuing research career continued to draw from George Palade's research in those days to the point, where I dedicated a summary paper (in the *J. Mol. Cell Cardiology*, 1995) to him and three other memorable investigators in my field (the cardiac conduction system, and excitation-contraction coupling). By that time, I (with Peter Ingram, Rashid Nassar and Peter Kopf) had morphed into high-resolution X-ray-micro-topochemistry, measuring the time-course of calcium intact frog skeletal muscle fiber (<500 microseconds, between stimulus to quick-freezing). I had just published an abstract about it, when I was plantation of a pacemaker. Remember, Zeus had the god of the physicians, Asklepios, killed by Chiron (not Charon) on the grounds that Aesculapius kept humans alive, which was against nature! How about that! That is exactly what I did by my research on the electrical wiring system in the heart, both atria and ventricles. Another reason for it now being:

Quittin' time. Thanks, pals, It's been a blast, that past half century.

Keep up the good work! So far, y'all's have, even as I descend $\epsilon \iota \zeta \text{ } \text{A} \delta \omicron \upsilon \zeta$ ** however slowly over the Styx river, on Charon's command.

Cheers!

Joachim R. Sommer, MD, PhD

Prof. of Pathology & Physiol./Cell Biol., Emeritus
Duke Medical Center

***Greek accents omitted; too hard to find at 86 years!*

Report on HCS Short Course at Woods Hole



In late March 2010, the HCS embarked on a new and exciting venture: a hands-on short course on Immunohistochemistry (IHC)/ Immunocytochemistry (ICC). HCS had offered a lecture-based workshop in IHC in association with our recent annual meetings, however, this most recent iteration was an ambitious and, successful undertaking. Some 35 “students” registered for the course at the Marine Biological Laboratory in Woods Hole, MA over three days and two nights, March 24 - March 26, 2010.

Interspersed between formal presentations to the entire group that began at 8:00 AM each morning were laboratory sessions mid-morning, early and late afternoon and from 8:30 PM on. These nighttime sessions could run until 1:00 – 2:00 AM, depending on which set of protocols a group was following. Despite the full days and nights, enthusiasm was high. Using a combination of microscopes – an MBL owned Zeiss LSM510 confocal, a company loaned and specialist supported Perkin Elmer spinning disk and a specialist supported microscope system with Bitplane Software,

and two other upright microscopes for imaging the chromogen-based methods – participants were able to see the fruits of their labors and to get immediate feedback from course faculty who were assigned to each of the instruments. Eduardo Rosa-Molinar, one of the course organizers, brought with him a coterie of enthusiastic and knowledgeable laboratory assistants from his home institution, the University of Puerto Rico-Rio Piedras. These individuals shepherded the participants with hand-on attention as each “student” carried out the different protocols.

Course organizers Rosa-Molinar, Stahl and Baskin, brought together a stellar cast of scientists to present lectures that included not only the fundamental standards of IHC, e.g., (1) detailed primer on antibodies and ICC that define the primary probes used in IHC, (2) principals and application of fixation and controls in IHC, (3) principles of fluorescent and chromogenic protocols, but more advanced topics such as (4) the principles and use of TSA amplification procedures and use of Qdots, nanotechnology-based fluorescent probes, and (5) an extensive toolbox of molecular labeling technologies for fluorescence microscopy. Participants were introduced to the marvels of microwave technology in IHC in formal lecture, by demonstration and hands-on application.

While most of the registrants hailed from all over the mainland US and Puerto Rico, we had international participants from the United Arab Emirates, Japan, Denmark and Canada. The “students” included medical technologists, post-docs, graduate students, faculty from academia and approximately 30 % from commercial enterprises,

most of which sell antibodies and reagents that are used in IHC.

Corporate sponsorship was extensive and included Abcam, Inc., BioRad, Bitplane, Inc., Chroma Technology Corporation, Electron Microscopy Sciences, Invitrogen, Life Technologies, JEOL Ltd., Journal of Histochemistry & Cytochemistry, Leica Microsystems, Inc., Nikon Corporation, PerkinElmer Inc., SAGE Publications, Ted Pella, Inc., and Vector Laboratories, Inc. In addition to providing financial support, several of the sponsors provided instrumentation and specialists to man it, and speakers for the formal lecture presentations.

Informal feed back from participants during the course was extremely positive. I believe this endeavor truly fulfills one of the major goals and objectives of the Histochemical Society, that of education and dissemination of the art and practice of the histochemical and cytochemical sciences.

The HCS Immunohistochemistry Hands-on Short Course joins the stable of other internationally known courses taught at the MBL in Woods Hole. The folk at the MBL were enthusiastic for the HCS to put on the course at their campus and arrangements have been made for us to mount the course for the next several years until 2014. Next year we will be in newly renovated lab and lecture space and look forward to the 2nd Annual iteration. Plans are already underway to add some new and exciting topics.

Joe Mazurkiewicz
Past-President HCS
HCS Newsletter Editor

2010 HCS Short Course

Irma Torres-Vazquez works with students at an evening lab session.



Ed Rosa-Molinar and members of his lab group planning for the laboratory sessions at the short course.



Deparaffinizing tissue sections was the first step for IHC protocols

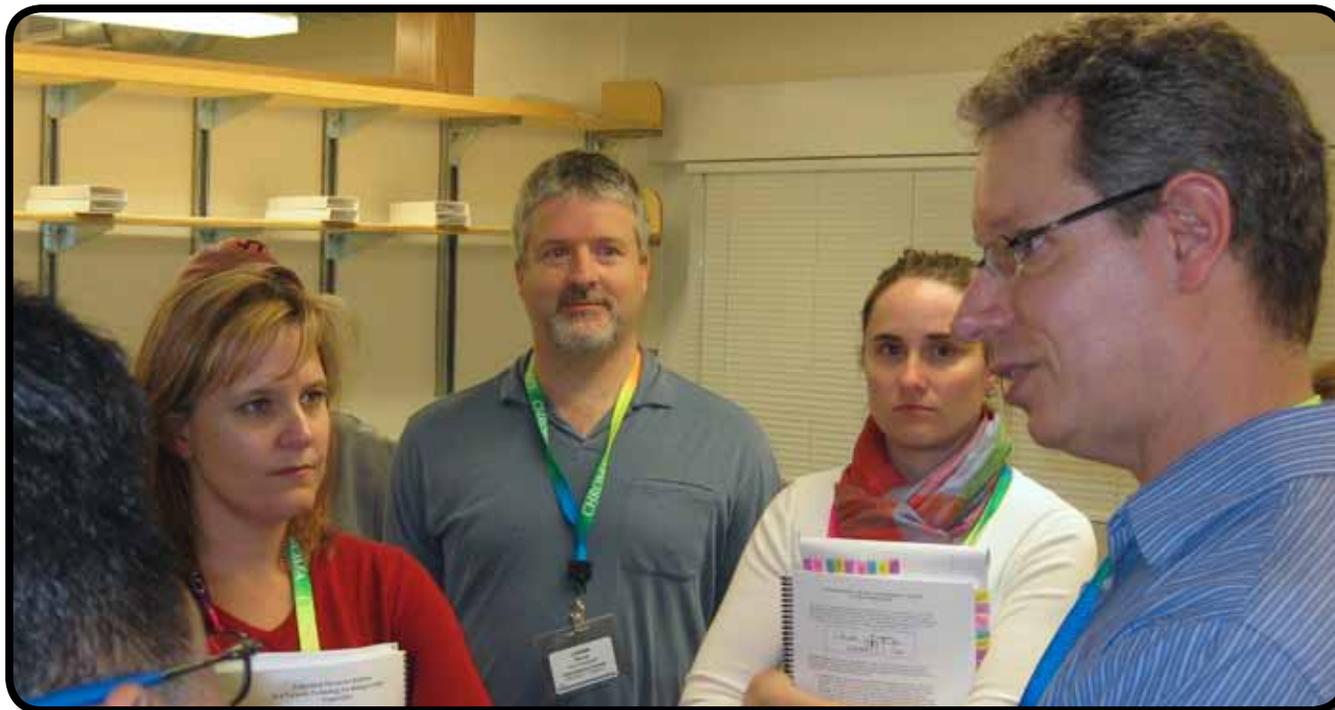


Past-President Hinke Maulhaupt led the lab sessions on antigen retrieval. Here she discusses the protocol with students in the lab.



Kevin Roth (far right), Editor-in-Chief of "The Journal of Histochemistry and Cytochemistry" works with students following the tyramide signal amplification protocol.

2010 HCS Short Course



Mark Sanders introduced the participants in the short course to microwave processing applications for immunohistochemistry.



Speaker Jerry Sedgewick in the lab with Noraida Martinez-Rivera and Irma Torres-Vazquez

HCS Committees 2009-2010

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

- * Charles Frevert, Chair <cfrevert@u.washington.edu>
- * Eduardo Rosa-Molinar <ed@hpcf.upr.edu>
- * Allen M. Gown <gown@phenopath.com>
- * Richard Levenson <rml@post.harvard.edu>
- * Heinz-Ulrich Weier <ugweier@lbl.gov>
- * Kevin Roth, *ex officio* <karoth@uab.edu>
- * 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>
- * Margarida Barroso <barrosm@mail.amc.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>
- * Kevin Roth, *ex officio* <karoth@uab.edu>

Journal of Histochemistry and Cytochemistry

Editorial Office

Dept. of Pathology
University of Alabama at Birmingham
1530 Third Ave S., WP 210
Birmingham, AL 35294-7331

Phone 205-934-8344
Fax: 205-934-6700
Email: johc@histochemicalsociety.org

Editor-in-Chief

Kevin A. Roth
Email:
johc@histochemicalsociety.org

Editorial Assistant

Angela L. Schmeckebier
Email: aschmeck@uab.edu

Publication Office

Mailing Address:
University Station, P.O. Box 85630
Seattle, WA 98145-1630

Shipping Address:
1107 NE 45th St., Suite 327
Seattle, WA 98105

Phone: 206-616-5894
Fax: 206-616-5842
Email:
johc@histochemicalsociety.org

Executive Editor

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

Managing Editor

Tanda Jaipean
Email:
tjaipean@histochemicalsociety.org

Marketing & Subscriptions Manager

Meg McGough
Email:
mmcgough@histochemicalsociety.org

Computer and Editorial Specialist

Suzanne Paquette
E-mail: johc@histochemicalsociety.org



The Histochemical Society Administrative Office

University Station, P.O. Box 85630
Seattle, WA 98145-1630
Phone: 206-616-5278
Fax: 206-616-5842
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

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

President-Elect

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

Past-President

WEIER, Heinz-Ulrich
Lawrence Berkeley National Laboratory
E-mail: ugweier@lbl.gov

Secretary/Treasurer

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

Councilors

BARROSO, Margarida (2008-2011)
Albany Medical College
E-mail: barrosm@mail.amc.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

LEVENSON, Richard (2007-2011)
Brighton Consulting Group
E-mail: RML@post.harvard.edu

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

SHACKA, John (2007-2010)
University of Alabama at Birmingham
E-mail: shacka@uab.edu

SHI, Shan-Rong (2006-2010)
University of Southern California
E-mail: sshi@hsc.usc.edu

WIGHT, Thomas (2006-2010)
Benaroya Research Institute
E-mail: twight@benaroyaresearch.org