

2018 Region I Annual Symposium

New York State Histotechnological Society • Biological Stain Commission



Keep Calm and Stain On

Saratoga Springs, New York • March 17

PROGRAM

NYSHS REPRESENTATIVES

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ONE DAY SYMPOSIUM COMMITTEES

Meeting Coordinator: Mary Georger

Education Chairs: Luis Chiriboga, Toni Goodrich

CEU Accreditation: Diana Scott, Toni Goodrich

Vendor/Exhibit Coordinator: Michal Gasioreczyk, Sarah Mack

Registration Coordinators: Christine M. Miller, Kitty Stairs, Mary Georger

Awards: Kitty Stairs

Program: Briana Zeck



GENERAL SYMPOSIUM INFORMATION

Use one registration form per person. Forms may be duplicated.

Name tags are required for entry into all functions. For registration purposes, the membership rate is for individuals currently listed as members of either a state society within Region I or a member of NSH. Guests of attendees must register using a separate form. Guests are not permitted to attend educational sessions but are eligible to attend all other functions. NSH Contact hours for CEU's will be given for all educational sessions.

HOTEL INFORMATION

The symposium will be hosted at the Holiday Inn Saratoga Springs.

There will be a convention rate available (\$129.00 for single or double room) until February 28, 2018.

Please use the code "HIS" to receive the group room rate.

For reservations call: 1-518-584-4550 or online at: www.saratogahi.com

Additional Holiday Inn Resources can be found at:
www.holidayinn.com/hotels/us/en/saratoga-springs/sgany/hoteldetail/

YOUR GUIDE TO SARATOGA SPRINGS

Planning a visit to Saratoga? Head to Saratoga.com to find the Saratoga lodging, restaurants, community information and activities that fit your lifestyle! Whether you are planning your next Saratoga Race Course summer season, or want to explore the trails in spring, you can find information on hotels, inns and resorts, restaurants, pubs and nightclubs as well as golf courses, shopping and day spas.

Driving/Parking: Complimentary on-site parking—232 Broadway, Saratoga Springs New York 12866

Train Service: Amtrak.com 877-444-4773—26 Station Lane, Saratoga Springs New York 12866, 2.0 Miles from Hotel

Bus: Greyhound.com 800-231-2222—26 Station Lane, Saratoga Springs New York 12866, 2.0 Miles from Hotel

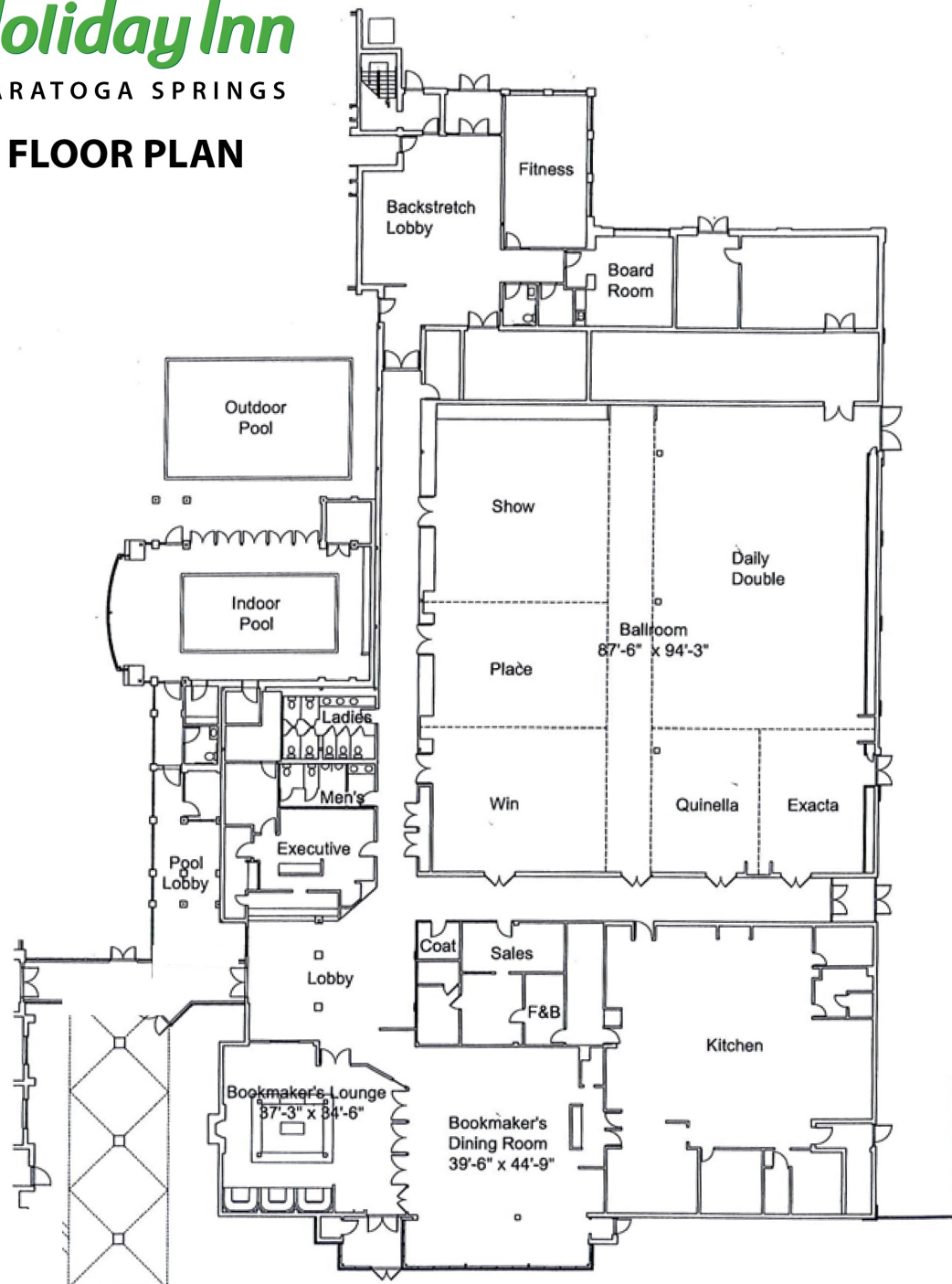
Area Airports: Albany International Airport: 737 Albany Shaker Road, Albany New York, 25 Miles from Hotel

Saratoga County Airport: 3654 Galway Road, Ballston Spa New York, 5 Miles from Hotel





HOTEL FLOOR PLAN



MEETING AT A GLANCE

Friday March 16

9:00 AM 10:00 AM	Biological Stain Commission Editorial Board Meeting	Exacta/Quinella
10:00 AM 11:00 AM	Biological Stain Commission Laboratory Committee Meeting	Exacta/Quinella
11:00 AM Noon	Biological Stain Commission General Membership Meeting	Exacta/Quinella
Noon 1:00 PM	Lunch	TBD
1:00 PM 5:00 PM	Biological Stain Commission Trustees Meeting	Exacta/Quinella
6:00 PM 9:00PM	New York State Histotechnological Society Board Meeting	Board Room

Saturday March 17

Registration Hours:

Saturday March 17th 7:00 AM-10:00AM

Vendor Exhibit Hours:

Saturday March 17th 7:30 AM-12:00 PM

1:30PM –2:30PM

Saturday March 17

7:00 AM 10:00 AM	Registration Opens - Continental Breakfast Served	n/a	Daily Double
7:00 AM 4:00 PM	Vendor Hall Open	n/a	Daily Double
8:00 AM 9:00 AM	Whole slide imaging: what the future holds now that the FDA has approved a system for routine diagnostic pathology case reporting Brenden F. Boyce - University of Rochester Medical Center	1 CEU	Place & Show
9:00 AM 9:30 AM	Coffee Break/Vendor Time	n/a	Daily Double
9:30 AM 10:30 AM	"Morphologic Proteomics: A new frontier or an old friend?" Richard Cartun - Hartford Hospital	1 CEU	Place & Show
10:30 AM 11:30 AM	Insect Histology: Historical Overview and Current Perspectives Damien Laudier - Laudier Histology	1 CEU	Place & Show
11:30 AM 11:45 AM	Student Lecture: Infection of the honeybee hive with Iridovirus Six (IIV-6) as a possible explanation of Colony Collapse Disorder Joseph McInnis—Greenport Union Free High School	n/a	Place & Show
11:45 AM Noon	Vendor Time	n/a	Daily Double
Noon 1:00PM	Buffet Lunch/Awards & Scholarships/Vendor Raffle	n/a	Daily Double
1:00 PM 2:00 PM	Vendor Time	n/a	Daily Double
2:00 PM 2:30 PM	The Importance of Fatty Acids in Prostate Cancer: A Challenge in Immunohistochemical Analysis and Future Therapy William Grizzle - University of Alabama at Birmingham	0.5 CEU	Place & Show
2:30 PM 3:00 PM	Eriochrome Cyannine R: A Substitute for Hematoxylin Dusan Stefanovic - BioGnost Pharmaceuticals and Diagnostics	0.5 CEU	Place & Show
3:00 PM 3:30 PM	Coffee Break/Vendor Time	n/a	Daily Double
3:30 PM 4:00 PM	Cyanine Fluorophores for Trafficking Scaffold Degradation Magad Henary - Georgia State University	0.5 CEU	Place & Show
4:00 PM 4:30 PM	Amyloid from a Histochemical Perspective: New Insights on its Structure and Mechanism of Staining with Congo Red Richard Dapson - Dapson & Dapson LLC	0.5 CEU	Place & Show
4:30 PM 5:00 PM	Imaging of Tumors using Near Infrared Fluorescence Lacey McNally - Wake Forest University	0.5 CEU	Place & Show
5:00 PM 5:30 PM	In Situ Imaging of Tumors: Could Fluorescent "Smart-Probes" Do The Job Richard Horobin - University of Glasgow	0.5 CEU	Place & Show

MEETING REGISTRATION FORM

Use one registration form per person. Forms may be duplicated.

Name (will appear on badge)	Date
Employer	Are you an NSH Member? <input type="checkbox"/>
Address	Are you a NYSHS Member? <input type="checkbox"/>
City, State Zip	Are you a BSC Member? <input type="checkbox"/>
Email	Region I Members receive the member rate for this Symposium.
Work Phone	Please indicate which state society you are affiliated with:
Home/Cell Phone	CT <input type="checkbox"/> ME <input type="checkbox"/> MA <input type="checkbox"/> NH <input type="checkbox"/> NY <input type="checkbox"/> RI <input type="checkbox"/> VT <input type="checkbox"/>

Please Circle One (Full Day Inclusive)

NYSHS or BSC Member: \$100.00

Non-Member: \$135.00

Student: \$25.00

To attend the NYSHS Annual Symposium, please print and send this form with payment to:

2018 Meeting Registrar
Mary Georger
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Rochester NY 14617

Make Checks Payable to:
New York State Histotechnological Society



NEW YORK STATE HISTOTECHNOLOGICAL SOCIETY APPLICATION FOR MEMBERSHIP

Contact Information: *Please check one* Office: _____ Home: _____

First Name: _____ Last Name: _____

Institution/Company: _____

Department: _____

Street Address 1: _____

Street Address 2: _____

City: _____

State: _____ Zip: _____

Home/Cell Phone: _____ Work Phone: _____

Email: _____

Demographics:

Nature of Work: *please check one*

Clinical: _____ Research: _____ Education: _____ Student: _____

Education (highest level attained): _____

ASCP Board Certification: HT: _____ HTL: _____ MT: _____ MLT: _____ Other: _____

Membership Runs from July 30th to June 1st of the calendar year.

Membership dues are tax deductible.

Please select Membership:

New member: _____ Annual fee \$25.00 Referred By: _____

Renewal: _____ Annual Fee \$25.00 Date of previous membership: _____

Student: _____ Annual Fee \$7.00 College: _____ Director: _____

Amount Enclosed: _____

Please send completed application and check or money order payable to:

New York State Histotechnological Society (NYSHS)

Christine Miller, Membership Secretary

PO box 16812

Rochester, NY 14616



BIOLOGICAL STAIN COMMISSION

APPLICATION FOR MEMBERSHIP or PAYMENT OF ANNUAL MEMBERSHIP DUES

Name _____
(LAST) (First) (Middle) (Title - Mr, Mrs, Dr etc)

For renewal, only your name and any changed information are needed.

Degrees / Diplomas /Certifications: _____

Occupation / Position and Employer / Institution: _____

Mailing address _____

Means of communication (please choose at least one; email preferred):

Email: _____

Telephone: _____

Fax: _____

Annual membership dues: For individuals U.S.\$60.00. For corporate members U.S.\$120.

Membership is current for one year after payment. Dues include a subscription to Biotechnic & Histochemistry.

Make check payable to Biological Stain Commission. Send a printout of this form, with your check or money order to:

Biological Stain Commission

**Dept of Pathology and Laboratory Medicine, Box 626, University of Rochester Medical Center,
Rochester, NY 14642-0001 USA.**

The easiest way to renew membership is with PayPal or credit card on the Membership page of the BSC's web site,
<http://biologicalstaincommission.org/>



EDUCATIONAL PROGRAM ABSTRACTS

Session 1 (8:00-9:00AM):

Whole slide imaging: what the future holds now that the FDA has approved a system for routine diagnostic pathology case reporting

Brendan F. Boyce, MD.

University of Rochester Medical Center. Rochester, NY.

Surgical pathologists have used microscopes and glass slides to render diagnoses of normal and diseased tissues for over 150 years. Technologic advances have led to significant improvements in the quality of microscopes and microtomes used to cut tissue sections in the last few decades, but these have not been accompanied by significant changes in the way pathologists read slides to render diagnoses. In contrast, since the introduction of hand-held electronic devices for communication and leisure, there have been major advances in the technology that comprise digital pathology, including interfacing laboratory information systems with patient medical electronic records, voice recognition for diagnosis dictation, and the development of whole slide imaging (WSI) systems that convert glass slides into virtual (digital) slides, which can be viewed on computer monitors in pathologists' offices or remotely over the Internet. Despite these advances, pathologists have made only moderate changes to the way they perform their daily work; these include using computers to access electronic medical records and published papers from scholarly web sites to retrieve pertinent information to help them interpret cases before signing them out electronically. Things are likely to change significantly in the next decade since the Federal Drug Administration in the USA approved the first WSI system for routine diagnostic practice last year and two other systems were approved earlier by authorities in Canada and parts of Europe. This presentation will review the development and use of WSI by pathologists and how they can be validated, which will be required for routine reporting of cases using this technology. 1 CEU.

Session 2 (9:30-10:30AM):

Morphological Proteomics: a new frontier or an old friend?

Richard Cartun, MD, PhD.

Hartford Hospital. Hartford, CT.

This seminar will briefly discuss the evolution of immunohistochemical (IHC) testing from a stain to a modern-day version of "Morphologic Proteomics". The importance of pre-analytics (e.g., specimen collection, fixation, and tissue processing) on the identification of proteomic targets will be reviewed. The concept of using Morphologic Proteomics to identify protein expression associated with genomic alterations first identified through "Next Generation Sequencing" (NGS) testing will be introduced. Case studies will be used for demonstration purposes. 1 CEU.

Session 3 (10:30-11:30AM):

Insect Histology: Historical Overview and Current Perspectives

Damien Laudier, BS.

Laudier Histology. New York, NY.

The practice of insect histology presents unique technical challenges and is considered an esoteric specialty in the field of histotechnology. This seminar will provide a historical overview of the specialty, including a review of insect morphology and histology processing protocols. In addition, the seminar will discuss how current histological based studies are playing a vital role in advancing the understanding of insect and related arthropod biology. 1 CEU.



Session 4 (11:30-11:45AM):

Infection of the honeybee hive with Iridovirus Six (IIV-6) as a possible explanation of Colony Collapse Disorder

Joseph McInnis, HS Student.

Greenport Union Free School District. Greenport, NY.

Colony Collapse Disorder (CCD) is a massive global problem resulting in upwards of 23% yearly loss of honeybee colonies. Though there are multiple theories for its cause, primarily including pesticides and climate change, none provide a conclusive explanation. This presentation will explore our in-progress research into an alternative possible cause of CCD: A two-part disorder consisting of immunodeficiency virus Iridovirus Six (IIV-6), which weakens an insect's immune system, combined with a secondary vector, which could be many things—diseases brought on from pesticides or malnutrition, for example—resulting in death of honeybees. In other words, through debilitation of the bee, By compromising the health of the bee, Iridovirus would allow a normally tolerable insect disease to kill, similar to an AIDS reaction. However, we first need to determine if the honeybees contract Iridovirus and if so, by what mechanism. So, this presentation will cover our the recent methods efforts we are using to study its the existence of Iridovirus in multiple hive resident organisms.

Session 5 (2:00-2:30PM):

The importance of fatty acids in prostate cancer: a challenge in immunohistochemical analysis and future therapy

William Grizzle, MD, PhD.

University of Alabama at Birmingham. Birmingham, AL.

Long chain, saturated fatty acids (FA) such as palmitate are critical components for cellular growth and survival. Specifically, cells cannot proliferate without a parent cell duplicating its membranes (e.g., nuclear membrane) which will become the membranes of the child cells. As proliferation becomes more rapid in diseases such as cancer, more fatty acids are required. In addition, for cell survival FA are required to replace cellular membranes when they are damaged. Cells obtain FA via synthesis by fatty acid synthase (FASN) and/or by transport of FA into cells via transport proteins such as fatty acid binding protein 5 (FABP5). In general, normal or uninvolved cells obtain FA via transport while rapidly proliferating cells such as cancer cells synthesize FA. However, cancer cells may balance transport and synthesis and overweight/obesity may shift the balance to transport because more FA are circulating in blood. The increase in FA in overweight patients also may increase the aggressiveness of cancers, especially prostate cancer. Thus, weight control may be beneficial to cancer control and novel cancer drugs may be developed to target FABP5 and related FA transport proteins. This presentation will discuss the importance of FA in normal and neoplastic growth and survival. The immunohistochemical analysis of FASN and FABP5 in cancer will be presented and discussed, including the potential effects of an overweight patient status on the aggressiveness of specific cancers. 0.5 CEU.

Session 6 (2:30-3:00PM):

Eriochrome cyanine R: a substitute for hematoxylin

Dusan Stefanovic, MD.

BioGnost Pharmaceuticals and Diagnostics, Zagreb, Croatia.

Hematoxylin (Natural Black I, C.I. 75290) is a dye derived from a logwood tree. Apart from its notable application in textile dyeing, it has been used for tissue staining since the 19th century. For both purposes a product of hematoxylin oxidation termed hematein has been applied in combination with various transitional metal salts, in most cases aluminum and iron. However, owing to the various complexities of production and distribution, the repeated shortages of hematoxylin have occurred, most markedly in the 1970s and 2000s. Consequently, appropriate substitutes have been sought. One of the preferred candidates is eriochrome cyanine R (ECR). ECR (C.I. 43820) is a synthetic sulfonphthalein anionic dye. When applied individually, it may serve as a useful pH indicator and has staining properties similar to that of eosin. On the other hand, it is capable of forming complexes with transitional metal ions in a fashion



similar to that of hematein. However, unlike the latter, ECR is not susceptible to spontaneous oxidation and thus its working solutions have significantly longer shelf-life compared to regular hemalums. This lecture will demonstrate the staining capabilities of ECR complexes with iron applied to tissues fixed in neutral buffered formalin, zinc formalin and glyoxal. A few staining methods will be presented with detailed prescriptions and accompanied with the staining results. In conclusion, an attempt will be made to promote iron-ECR as a valuable hemalum substitute in routine cytological, histological and histopathological staining. 0.5 CEU.

Session 7 (3:30-4:00PM):

Cyanine fluorophores for trafficking scaffold degradation

Magad Henary, PhD.

Georgia State University. Atlanta, GA.

Biodegradable scaffolds have been extensively used in the field of tissue engineering and regenerative medicine. However, noninvasive monitoring of in vivo scaffold degradation is still lacking. In order to develop a real-time trafficking technique, a series of various near infrared (NIR) fluorophores were synthesized and conjugated to biodegradable gelatin scaffolds. The physicochemical properties such as lipophilicity and net charge of fluorophores played a key role in the fate of NIR conjugated scaffolds in vivo after biodegradation. The positively charged fluorophore-conjugated scaffold fragments were found in salivary glands, lymph nodes, and most of the hepatobiliary excretion route. However, halogenated fluorophores intensively accumulated into lymph nodes and the liver. Interestingly, balanced-charged gelatin scaffolds were degraded into urine in a short period of time. These results demonstrate that the noninvasive optical imaging using NIR fluorophores can be useful for the translation of biodegradable scaffolds into the clinic. 0.5 CEU.

Session 8 (4:00-4:30PM):

Amyloid from a histochemical perspective: new insights on its structure and mechanism of staining with Congo red

Richard Dapson, PhD.

Dapson & Dapson LLC. Richland, MI.

Amyloid is usually identified in histologic sections by its apple-green birefringence with Congo red, but the mechanism of that staining reaction is ill defined. This is because the structure of amyloid itself has been controversial for years. Recent studies using very sophisticated tools have provided enough information so that we can now explore how Congo red binds. Using computer-generated molecular models, I have determined where on the amyloid surface the dye lies, the mechanisms of binding and how it becomes birefringent. 0.5 CEU.

Session 9 (4:30-5:00PM):

Imaging of tumors using Near Infrared Fluorescence

Lacey McNally, PhD.

Wake Forest University. Winston-Salem, NC.

Visualization of fluorescent dyes are highly limited to superficial levels as the scattering of light degrades spatial resolution at increased depths. While the development of Near-infrared dyes has increased the depth of fluorescent detection, the visualization of these dyes remains limited to a few millimeters. To overcome these limitations of detection depth, Multispectral optoacoustic tomography (MSOT) has emerged as an alternative modality that relies on the photoacoustic effect in which molecules within biological tissues absorb light causing them to heat up and expand. To date, some commercially available NIR dyes commonly used in NIR fluorescence imaging also are detectable by optoacoustic imaging. Detection of tumors with these commercially available dyes often requires conjugation of these molecules to peptides, antibodies, or nanoparticles to result in high tumor specificity. We demonstrate both receptor- and tumor microenvironment- targeted probes which have tumor specificity for pancreatic, breast, and ovarian cancers in both cell lines and mouse models of cancer. 0.5 CEU.



Session 10 (5:00-5:30PM):

In Situ imaging of tumors: could fluorescent "smart-probes" do the job

Richard Horobin, PhD.

University of Glasgow. Glasgow, Scotland.

Within cancer diagnostics R & D there is a vision. That a patient could be injected with a fluorescent probe which would target any cancer cells present. Then the patient would enter a scanner, which could detect the localised probe. So, does this work? Yes ... for mice! Stay tuned, the physicists are working on the detection problem in humans.

However, many successful-in-mice probes do already exist. Typically these are "smart probes" designed to detect some biochemical or metabolic oddity distinguishing cancer cells from normal non-transformed cell lines. But, whilst such targeting can underlie uptake of probes into cultured tumor cell lines, is this actually why the probes selectively target tumors in whole, live organisms? Perhaps the smart probes are not as smart as we think? Or, more precisely, the smart probes may have additional, often unacknowledged, smartness mechanisms. This paper expands these topics, and suggests what the "extra smarts" may involve 0.5 CEU.



AWARDS AND SCHOLARSHIPS

The Awards Committee, formed from the Officers and Directors of the society, carefully evaluate all nominees and supporting documentation submitted for the scholarships. Recipients are presented their award at the annual spring meeting. The award is presented to a histology student or a histotech who wishes to attend a professional meeting by one of our sponsoring manufacturers. All scholarships must be used to defray educational expenses. Applications are due February 15th, 2018.



Source Medical Products will award \$250 to the scholarship recipient.



StatLab Medical Products will award \$250 to the scholarship recipient.



Perkins Biomedical Services will award \$250 to the scholarship recipient.



Poly Scientific R&D will award \$500 to the scholarship recipient.



Gulf Coast will award \$500 to the scholarship recipient.



Sakura Finetek will award \$250 to the scholarship recipient.

Please send all awards correspondence to the awards Chairperson at:

NYSHS 2018 Award Application

Kitty Stairs kittystairs@gmail.com

Mailing address: 1037 Ft. Hunter Rd. Schenectady, NY 12303

HISTORY OF THE BIOLOGICAL STAIN COMMISSION

WE ARE PROUD TO HAVE PARTNERED WITH THE BIOLOGICAL STAIN COMMISSION FOR THIS REGION I SYMPOSIUM. PLEASE SEE BELOW FOR A BRIEF HISTORY OF THEIR ORGANIZATION.

Biological stains are used to create visual contrast between tissue elements as tissues are essentially colorless, and when prepared for microscopic examination, transparent. Slight differences in structure, dye content and impurities of the dye used for staining can result in failure of expected coloration of the specimen, leading to an inability to properly identify microscopic structures. These problems were first noticed by the earliest users of dyes in histology and remain a concern today.

The first attempt at quality assurance in biological dyes was the result of advice given to a graduate student by pathologist Dr Carl Weigert, in 1880. The graduate student was Georg Grüber, who soon after completing his studies began supplying biological dyes that gave reasonably consistent results. The Grüber label came to be accepted as an adequate quality assurance, and these German dyes achieved virtually a world-wide monopoly.

During World War I there was a blockade of German products, including dyes. As a result a dye industry was initiated in the USA. This early industry had much to learn, and its products were at first not only poor textile dyes, but were often impossible to use as biological stains. After the USA entered the war, and as the armed services expanded, many new laboratories had to be developed, and the dye quality situation became even worse. Particular problems focused on the dyes basic fuchsin and gentian violet, which were important to bacteriologists, and eosin, hematoxylin, methylene blue and phloxin which were used by histologists. While these were the dyes most important for diagnostic studies at the time, almost all dyes used in histological and microbiological staining were causing problems..

By 1920 the supply of prewar dyes was almost exhausted, foreign supplies were erratic, and the domestic dyes still often unsatisfactory. As a consequence, several concerned groups and individuals came together: Harold J. Conn, from the Society of American Bacteriologists; Rolland T Will, of the Will Corporation, a laboratory equipment supplier; C. E. McClung, a member of the National Research Council and an academic zoologist; S. I. Kornhauser, of the American Society of Zoologists and later Head of the Anatomy Department at the University of Louisville; and L. W. Sharp, of the Botanical Society of America. Two key conferences on the standardization of stains were held in 1921, involving these people.

Growing from this activity came the Commission on the Standardization of Biological Stains, whose original executive committee members were Conn, Kornhauser, and Sharp, and also Frank B. Mallory representing the American Society of Pathologists and Bacteriologists, and J. A. Ambler of the American Chemical Society. Dr Ambler was head of an office of the US Department of Agriculture known then as the Color Laboratory, and he offered the facilities of that laboratory for the necessary chemical work. His assistant was H. C. Holmes, who became very active in this work. By 1923 the Commission already had a constitution which is recognizably the forerunner of the Aims of the present Commission. Initially funding was via the Chemical Foundation. Funding from sale of certification labels to



manufacturers, for placing on bottles of those batches tested and found satisfactory, slowly became more significant as a source of Commission finance.

The practical work of the Commission began in 1922 with staining tests made by a group of collaborators under the supervision of Conn at the Agriculture Experimental Station at Geneva NY, while the chemical work was performed at the Color Laboratory under a 'memorandum of understanding' with the US Department of Agriculture. By 1929 a chemical assistant was in place there. By 1946, after various adventures and misadventures, her successor was carrying out the assays at the New York Agriculture Experimental Station at Geneva NY, under the direction of E. H. Stotz. When funds became available for a technician, the number of biological staining tests made at Geneva increased, and more rapid progress was made in the certification of additional stains.

In parallel with this, Dr Conn – while Chairman of the Commission – published in 1925 the first edition of Biological Stains. This book has become a standard source of reference in technical and research histopathological and biological laboratories using dyes. The book has been kept up to date by regular revisions, with a 10th edition (2002) being the most recent version.

Another activity undertaken by Dr Conn, in 1925, was the establishment of a journal to serve as a medium of publication for the Commission. Stain Technology, whose first issue appeared in 1926, is still published, with a name change in 1991 to Biotechnic & Histochemistry. Dr Conn was the original editor for almost 30 years.

The great demands of the armed services for dyes during World War II brought appreciable income to the Commission based on the sale of certification services and labels for stain bottles. The improved financial status made it desirable to incorporate the organization. This was done in 1944, and the name changed slightly, to the Biological Stain Commission.

In 1947 Dr Stotz was made head of the Biochemistry Department of the University of Rochester School of Medicine and Dentistry. He found that the Dean, G. H. Whipple, was very sympathetic towards the Stain Commission and so was able to transfer all the assay work there. Not long after, Miss Darrow – who had been in complete charge of the biological testing of stains since 1937 – was also transferred to Rochester. At present, the Research and Assay Laboratories of the Biological Stain Commission are located at the University of Rochester Medical Center, Rochester NY. Its powers are vested in a board of trustees, 4 of whom are officers. Much of the chemical and biological testing continues to be performed at the labs in Rochester. For testing in certain special procedures, samples are also checked by collaborators in other laboratories.

Acknowledgement: this account is based on an article in American Society for Microbiology News 40: 252-259 (1974) by the late Dr George Clark, a former Trustee of the Commission.



PARTICIPATING VENDORS

The New York State Histotechnological Society and the Biological Stain Commission thank the following organizations for supporting the 2018 Region I Annual Symposium.



Participating vendors as of printing.