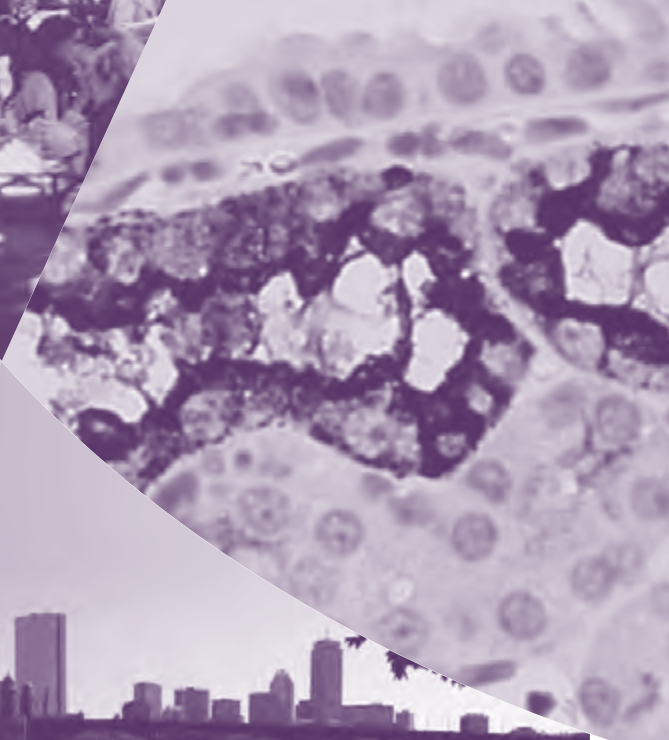




Society of Toxicologic Pathology

Mechanisms of Toxicity

31st Annual Symposium



**Boston
Marriott
Copley Place
June 24–28, 2012**

Boston

www.toxpath.org

Annual Symposium Overview

Registration Desk Hours

Boston Marriott Copley Place 4th Floor Registration Desk

Friday, June 22	4:00 PM–6:00 PM
Saturday, June 23	8:00 AM–6:00 PM
Sunday, June 24	7:00 AM–6:00 PM
Monday, June 25	7:00 AM–5:30 PM
Tuesday, June 26	7:30 AM–12:00 Noon
Wednesday, June 27	7:30 AM–5:30 PM
Thursday, June 28	7:30 AM–12:00 Noon

Saturday, June 23

9:00 AM–4:30 PM	NTP Satellite Symposium Pathology Potpourri Salon E (4th Floor)
7:00 PM–10:00 PM	Reception Sponsored by Charles River Salon G (4th Floor)

Sunday, June 24

8:00 AM–12:00 Noon	CE 1: Mechanism-Based Approaches to Cardiovascular Safety Assessment Salon E (4th Floor)
8:00 AM–12:00 Noon	Career Development Workshop: Presentation Skills and Scientific Advocacy Salon F (4th Floor)
1:30 PM–5:00 PM	CE 2: Nontraditional Applications of Clinical Pathology in Drug Discovery and Preclinical Toxicology Salon F (4th Floor)
1:30 PM–5:00 PM	CE 3: American College of Toxicology— Sponsored: Drug Development 101 Salon D (4th Floor)
1:30 PM–5:25 PM	CE 4: The Placenta As an “Immune Organ” and Its Relevance in Toxicological Studies Salon E (4th Floor)
5:30 PM–7:00 PM	STP Welcome Reception Back Bay Exhibit Hall (3rd Floor)

Monday, June 25

7:00 AM–8:00 AM	Continental Breakfast hosted by Abbott Back Bay Exhibit Hall (3rd Floor)
7:00 AM–4:30 PM	Exhibits and Posters Open Back Bay Exhibit Hall (3rd Floor)
8:00 AM–8:05 AM	Symposium Welcome Salon E (4th Floor)
8:10 AM–9:00 AM	Keynote Address: Formaldehyde Research: 30+ Years and Counting for Mode of Action Epidemiology, and Risk Assessment Salon E (4th Floor)
9:00 AM–12:00 Noon	Session 1: Host Factors and the Expression of Toxicologic Effects Salon E (4th Floor)
10:00 AM–10:30 AM	Break/Posters/Exhibits Back Bay Exhibit Hall (3rd Floor)
12:00 Noon–1:30 PM	Exhibitor Sponsored Lunch for Scientific Attendees Back Bay Exhibit Hall (3rd Floor)
12:30 PM–1:30 PM	Career Development Lunchtime Series: Careers in Environmental Toxicology Salon D (4th Floor)
1:30 PM–5:00 PM	Session 2: Morphologic and Molecular Underpinnings of Organelle Toxicity Salon E (4th Floor)
3:05 PM–3:35 PM	Break hosted by Abbott/Posters/Exhibits Back Bay Exhibit Hall (3rd Floor)

5:30 PM–6:30 PM

**Town Hall Meeting: New Paradigm
Needed for Carcinogenicity Risk
Assessment**

Salon E (4th Floor)

6:30 PM–9:30 PM

Reception Sponsored by EPL

Salon G (4th Floor)

Tuesday, June 26

7:00 AM–8:00 AM	Continental Breakfast Back Bay Exhibit Hall (3rd Floor)
7:00 AM–12:15 PM	Exhibits and Posters Open Back Bay Exhibit Hall (3rd Floor)
8:00 AM–12:10 PM	Session 3: Target-Related and Off-Target Based Toxicologic Effects Salon E (4th Floor)
10:00 AM–10:25 AM	Break/Posters/Exhibits Back Bay Exhibit Hall (3rd Floor)
Tuesday Afternoon	FREE TIME

Wednesday, June 27

7:00 AM–8:00 AM	Continental Breakfast Back Bay Exhibit Hall (3rd Floor)
7:00 AM–1:00 PM	Exhibits and Poster Sessions Open Back Bay Exhibit Hall (3rd Floor)
8:00 AM–12:00 Noon	Session 4: Chemical-Based Tissue Reactivity Salon E (4th Floor)
10:10 AM–10:50 AM	Break/Posters/Exhibits Back Bay Exhibit Hall (3rd Floor)
12:00 Noon–1:30 PM	Ethical Figure Adjustments for Publication Part 2 of Responsible Authorship and Publication Practices Salon D (4th Floor)
1:30 PM–5:00 PM	Session 5: Mechanisms of Toxicity: High-Profile Environmental Chemicals and Consumer Products Salon E (4th Floor)
2:55 PM–3:25 PM	Break Ballroom Foyer (4th Floor)
5:30 PM–5:50 PM	Awards Ceremony Salon E (4th Floor)
5:50 PM–6:30 PM	Annual Business Meeting Salon E (4th Floor)
7:00 PM–9:00 PM	President’s Reception Salon G (4th Floor)

Thursday, June 28

7:00 AM–8:00 AM	Continental Breakfast Ballroom Foyer (4th Floor)
8:00 AM–12:00 Noon	Session 6: Technology-Related Toxicologic Effects Salon E (4th Floor)
10:00 AM–10:30 AM	Break Ballroom Foyer (4th Floor)
12:00 Noon	Meeting Adjourned

Mechanisms of Toxicity

31st Annual Symposium

Boston Marriott Copley Place
June 24–28, 2012

Welcome!

Dear Colleagues and Guests,

On behalf of the Society of Toxicologic Pathology, it is a pleasure to welcome you to the STP 31st Annual Symposium at Boston Marriott Copley Place. The Scientific Program Planning Committee has planned an outstanding week of sessions on "Mechanisms of Toxicity," and I encourage you to take a few minutes to review the schedule of scientific and poster sessions and special events in this *Program* as you plan your week ahead.

It is still possible to register for one or more of the premeeting Continuing Education sessions by stopping by the Registration Desk on-site. The popular, interactive premeeting NTP Satellite Symposium, "Pathology Potpourri," will be held all day Saturday, June 23 and is free to all attendees. Four optional half-day Continuing Education (CE) sessions and a career development workshop will be offered on Sunday before the general sessions begin. The CE sessions are: "Mechanism-Based Approaches to Cardiovascular Safety Assessment"; "Nontraditional Applications of Clinical Pathology in Drug Discovery and Preclinical Toxicology"; "Drug Development 101"; and "The Placenta As an 'Immune Organ' and its Relevance in Toxicological Studies." There is no extra fee to attend the career development offering, "Presentation Skills and Scientific Advocacy," however, registration is required.

The Career Development Lunchtime Series, "Careers in Environmental Toxicology," will take place again on Monday and will be open to all attendees. There is no extra fee to attend this session, however, registration is required. The Exhibit Hall is always a very important part of our meeting and I am pleased that the exhibitors will again sponsor a Monday buffet lunch in the hall for all symposium attendees.

Don't miss the Town Hall Meeting Monday evening when "New Paradigm Needed for Carcinogenicity Risk Assessment" will be the topic. Carcinogenicity testing methods for new pharmaceuticals have not changed significantly in over three decades. The NEG CARC Rat proposal will be briefly reviewed and the audience will be asked to make recommendations for a new testing strategy.

On Wednesday IATP and STP will co-sponsor "Ethical Figure Adjustments for Publication," which is part two of "Responsible Authorship & Publication Practices" given at last year's meeting. There will be a nominal fee to cover lunches this year and participants may bring specific questions and problem images for one-on-one interaction with imaging experts after the presentations.

STP Special Interest Groups (SIGs) have scheduled meetings during the week, which are open to members and interested nonmember attendees. Please check the Registration Desk for meeting locations and times for the following groups: Clinical Pathology, Neuropathology, Reproductive Toxicologic Pathology, and Environmental Toxicologic Pathology. Other scheduled meetings are Cardiovascular Pathology, Investigative Toxicologic Pathology, and Toxicologic Pathologist in Consulting.

June is a wonderful time to enjoy Boston and I know that you will enjoy the Boston Marriott Copley Place, located in the Back Bay neighborhood. The Marriott conveniently connects to two large shopping centers with numerous restaurants. Tuesday will again be a free afternoon for attendees and I encourage you to explore Boston's many historical sites and great museums.

Looking forward to seeing you this week!

Sincerely,



Thomas M. Monticello, DVM, PhD, DACVP

STP President

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STP President: Thomas M. Monticello, DVM, PhD, DACVP

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Jun Zhang, MD, MS

US FDA-CDER



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You will be prompted for a login. Members can access with normal STP login. Other attendees can access with login provided via email.

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Scan this code for quick and easy access to up-to-date Annual Meeting information.

This is a QR (Quick Response) code. The code can be decoded by most camera-equipped mobile phones with a free downloadable application, thereby offering a direct link from this printed material to the meeting materials and information on the STP website. Download a QR reader application and try it!





STP 2012 Achievement Award Recipient



Gary A. Boorman

The Society of Toxicologic Pathology is proud to honor Gary A. Boorman, DVM, PhD, as a 2012 STP Achievement Award recipient. Dr. Boorman is recognized in the toxicologic pathology community for his contributions both as a scientist and as a visionary leader. His career in pathology has spanned nearly 40 years and has included academic positions, government service, and most recently,

private industry. He has played major roles in studying health effects of electromagnetic fields and application of toxicogenomics to the practice of toxicologic pathology. Dr. Boorman has authored 200 papers, authored or co-authored 90 book chapters, and co-edited seminal pathology texts including *Pathology of the Fisher Rat Reference and Atlas*, *Infectious Diseases of Mice and Rats*, *Companion Guide to Infectious Diseases of Mice and Rats*, and *Pathology of the Mouse*.

Dr. Boorman was awarded a BS degree in 1965 and a DVM degree in 1967 from the University of Minnesota. He began his career in Veterinary Pathology in 1971 after receiving an MS degree in Pathology from the University of Michigan and completed his pathology training in 1978, receiving a PhD in Comparative Pathology from the University of California. He became a Diplomate of the American College of Veterinary Pathologists in 1977. He is also a Diplomate of the American College of Laboratory Animal Medicine and the American Board of Toxicology. In 2006, he received the research Alumnus of the Year Award from the University of Minnesota College of Veterinary Medicine.

Dr. Boorman served in multiple important leadership roles at the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (NTP) for over 30 years. He joined the National Institute of Environmental Health Sciences (NIEHS) and National Toxicology Program (NTP) in Research Triangle Park, North Carolina in 1978, where as Head of Tumor Pathology, he provided leadership and direction to the international Carcinogenesis Testing Program conducted by the National Toxicology Program.

Dr. Boorman's leadership of the Chemical Pathology Branch of the National Toxicology Program for over ten years stands out as one of the significant features of his professional career. Under his guidance the toxicologic and carcinogenic potential of many environmental and industrial chemicals, and other potentially bioactive

exposures, including electromagnetic fields associated with high voltage power lines and toxicity of water disinfection by-products, has been established.

During this time he spearheaded efforts for rigorous scientific peer review of the pathology data for many of the 600 NTP chemicals that have been tested in animal models. The data from these studies has been used to determine potential risks to humans from environmental chemicals found in the water, air and food, and in determining the toxicity and carcinogenicity of drugs for which limited safety information was available. The significance of Dr. Boorman's contributions to the NTP was that the pathology data, considered to be the gold standard, was used to set safety standards for environmental chemicals and agents globally, thereby contributing to a safer environment for the American public and society worldwide.

While Chief of the Chemical Pathology Branch at NTP, Dr. Boorman was a driving force in establishing Pathology Peer Review and Pathology Working Groups as routine procedures in the world of toxicologic pathology. Pharmaceutical and chemical companies world-wide now conduct the pathology aspects of toxicology studies using these procedures. Dr. Boorman is one of a small group of toxicologic pathologists that made this happen. He retired from NTP in 2007 and is currently employed by Covance.

Dr. Boorman is known widely for his dedicated service to STP and the profession. He served on numerous STP committees and task forces and as STP President in 2007. He also served on the ACVP Council and as ACVP President. He is a Fellow of the International Academy of Toxicologic Pathologists and current chair of the Academy Accreditation Committee. He has also made valued contributions to the pathology discipline through his support/mentorship of students as a member of thesis committees and as Adjunct Professor at the University of North Carolina and North Carolina State University. Dr. Boorman has served as an Associate Editor for *Toxicologic Pathology* since 2008. He is highly respected and known widely for his dedicated service to the profession, his strength of character, his scientific integrity and the high quality of his professional relationships. He is similarly recognized as a selfless leader, who is quick to publicly acknowledge and credit the efforts and successes of his colleagues.

For his significant contributions, it is fitting that Dr. Gary Boorman be honored by the Society of Toxicologic Pathology.

STP 2012 Achievement Award Recipient



Michael J. Iatropoulos

The Society of Toxicologic Pathology is proud to honor Michael J. Iatropoulos, MD, PhD, as a 2012 STP Achievement Award recipient. Dr. Iatropoulos has had an exceptional career in industry and academia. His original, internationally recognized research has significantly contributed to the study of chemical carcinogenesis. He conducted pioneering work in developing methods and markers to measure

chemical-induced cellular proliferation and differentiation. These methods are now widely used to reveal the presence of significant differences between adaptive and adverse processes. Dr. Iatropoulos is also recognized as a dedicated educator in toxicologic pathology.

Dr. Iatropoulos earned an AB degree in Biology and Chemistry from Athens College in Athens, Greece in 1958. He received an MD from the University of Tübingen Medical School in Germany in 1964, and a PhD in Anatomy from the University of Tübingen in 1965. His dissertation title was "Form and Course of Development of Compensatory Liver Hypertrophy in the Rat," a research interest central to his life interest of comparative chemical carcinogenesis.

Dr. Iatropoulos completed a residency in Pathology at Brown University in 1970, where he specialized in molecular pathology, becoming instructor of pathology. Subsequently, he finished a residency in Anatomic Pathology at the University of Missouri Medical Center Hospital in Columbia. From 1972–1978 he was a Special Fellow in Toxicology and Pathology at Albany Medical College at the Institute of Comparative and Human Toxicology. He then served as Chief Pathologist and Associate Professor of Toxicology at the Albany Medical College primate facility at Holloman AFB in New Mexico. He moved to Lederle Laboratories in Pearl River, New York in 1978, where he was the Director of the Department of Experimental Pathology and Toxicology until 1989. He was subsequently employed by the American Health Foundation as Chief of Histopathology and Head of Regulatory Pathology in Valhalla, New York from 1989–1999. He then returned to academia in 1999 as Research Professor of Pathology at New York Medical College in Valhalla, where he currently works.

Dr. Iatropoulos has contributed substantially to the field through his more than 125 publications. He has also served on numerous advisory bodies and editorial boards. In addition, he is co-author of seminal chapters on "carcinogenic activity" in major text books of toxicology

and toxicologic pathology. He was an STP Councilor from 1983–1986 and an associate editor of *Toxicologic Pathology* from 1980–1984 and 1999–2005.

In 1989, Dr. Iatropoulos collaborated with colleagues from North America, Europe, and Japan, to establish the International Federation of Societies of Toxicologic Pathologists (IFSTP), to promote the teaching of the discipline. He served as the first Secretary-General of that Society. In 1999, Dr. Iatropoulos' organizational skills proved pivotal in the establishment of the accrediting organization, the International Academy of Toxicologic Pathology (IATP). He served as Secretary-Treasurer during the formative years of the Academy. Dr. Iatropoulos was also a founder of the French Society in 1984, the Japanese Society (JSTP) in 1985, and the Austrian-German-Swiss Society (GTP) in 1986, now known as the European Society of Toxicologic Pathology (ESTP).

In 1994, Dr. Iatropoulos was made an honorary member of the Japanese Society of Toxicologic Pathology and in 2004, he was made an Honorary Fellow of IATP.

Dr. Iatropoulos has organized numerous symposia including co-directing the "International Course on the Safety Assessment of Medicines," which in 15 years has provided education to more than 250 scientists. During this period, Dr. Iatropoulos also introduced the concept of "good laboratory practices" through workshops for European toxicologic pathologists, especially in the German speaking areas of Europe. His students occupy positions of high responsibility in Europe, Japan, and North America.

His approach to toxicologic pathology has been to explain the mechanism of action (MOA) by which drugs and chemicals induce injury in laboratory animals and humans. Using this approach Dr. Iatropoulos has helped explain rodent neoplasia in numerous regulatory submissions. Dr. Iatropoulos has excelled in the development of novel assays to study the processes of proliferation and differentiation and the processes of energy transformation and neoplastic transformation in tissues in rodents and avian species. He also recognized the importance of dose, time, and size of the biological target with respect to tissue response and developed comparative (lab animals to humans) scaling factors putting the tissue events into appropriate perspective, and helping with the interpretation of findings. By quantifying key events, such as DNA adducts, cytotoxicity, apoptosis, cell proliferation and induction of preneoplastic tissue changes, he has been able to identify non-linearities and thresholds for every level of biological organization, for several DNA-reactive carcinogens.

It is most appropriate that STP recognize the outstanding contributions of Dr. Michael J. Iatropoulos to the field of toxicologic pathology.



Awards

Boston

Society of Toxicologic Pathology

Awards

Toxicologic Pathology 2011 Best Paper Award

Gavage-Related Reflux in Rats: Identification, Pathogenesis, and Toxicological Implications (review)
Toxicol Pathol February 2011 39:348–60.

Siegrid Damsch¹, Gary Eichenbaum², Alfred Tonelli², Lieve Lammens¹, Kathleen Van den Bulck¹, Bianca Feyen¹, John Vandenberghe¹, Anton Megens¹, Elaine Knight², Michael Kelley²

¹Johnson & Johnson Pharmaceutical Research and Development, a division of Janssen Pharmaceutica NV, Beerse, Belgium, ²Johnson & Johnson Pharmaceutical Research and Development LLC, Raritan, New Jersey, United States

Society of Toxicologic Pathology Student Travel Awards

Famke Aeffner

The Ohio State University

Sachin Bhusari

National Toxicology Program,
National Institute of Environmental
Health Sciences

Natália Costa

University of São Paulo—
School of Medicine

Ana-Cristina Dragomir

Rutgers University

Charles Halsey

Colorado State University

Robert Johnson

Purdue University

Kyoko Okabe

Osaka City University
Graduate School of Medicine

Keiko Y. Petrosky

Tufts Cummings School
of Veterinary Medicine

Tháisa Meira Sandini

University of São Paulo

Surendra Singh

University of Colorado
Anschutz Medical Campus

Brent Walling

University of Illinois College of
Veterinary Medicine

Cynthia J. Willson

Wake Forest School of Medicine

Society of Toxicologic Pathology Student Poster Award

Bonnie Breenseke, DVM, DACVP

Virginia–Maryland Regional College of Veterinary Medicine
Virginia Polytechnic Institute and State University

The STP Student Poster Award competition occurred at the concurrent meetings of the ACVP and ASVCP held in Nashville, Tennessee, December 3–7, 2011. The posters were evaluated by a panel of judges composed of members of the Society of Toxicologic Pathology and American College of Veterinary Pathology. Bonnie Breenseke, DVM, DACVP, was selected the winner for the poster entitled “Long-Term Effects of Intravascular Exposure to Gold Nanoparticles in Mice.”

IATP Charles Capen Trainee Award

Lucas Chaible

University of São Paulo

Society of Toxicologic Pathology Young Investigator Awards

(See pages 9 or 26 for judging times.)

Winners will be announced at the Awards Ceremony at 5:30 pm on Wednesday, June 27, 2012, in Salon E (4th Floor).

Meeting Events

Saturday Evening Sponsored Reception

Saturday, June 23, 7:00 PM–10:00 PM
Salon G (4th Floor)

All attendees and their guest/spouse are invited. See page 40 for details.

Welcome Reception

Sunday, June 24, 5:30 PM–7:00 PM
Back Bay Exhibit Hall (3rd Floor)

STP Welcome Reception will kick off the week in the Exhibit Hall for all meeting attendees and their guest/spouse. Please wear your badge and bring your Welcome Reception ticket provided with your badge. The reception will have a cash bar, sodas, and light snacks sponsored by STP.

Guest/Spouse Tours

Monday, June 25, 9:20 AM

If you registered for a STP Guest/Spouse tour, please meet in the main lobby of the Boston Marriott Copley Place at 9:20 am on Monday, June 25. If you are interested in the Guest/Spouse tour but did not preregister, please visit the Registration Desk to check availability.

www.toxpath.org/AM2012/tours.asp

Lunch in the Exhibit Hall

Monday June 25, 12:00 Noon–1:30 PM
Back Bay Exhibit Hall (3rd Floor)

A lunch sponsored by the exhibitors for all scientific attendees will be held on Monday, June 25 in the Exhibit Hall.

Town Hall Meeting

New Paradigm Needed for Carcinogenicity Risk Assessment

Monday, June 25, 5:30 PM–6:30 PM
Salon D (4th Floor)

Carcinogenicity testing methods for new pharmaceuticals have not changed significantly in over three decades and do not reflect current scientific knowledge. A new proposal has emerged to reduce the use of the two-year rat bioassay for pharmaceutical testing by approximately 40% without compromise to patient safety. An analysis of chronic and carcinogenicity studies conducted with 184 compounds indicates that the proposed “NEG CARC Rat” test criteria (Negative for Endocrine, Genotoxicity, and Chronic Study Associated Histopathologic Risk Factors for Carcinogenicity in the Rat) correctly predict positive and negative rodent carcinogenicity outcomes for approximately 80% of compounds. All 13 compounds with positive rodent carcinogenicity findings that lacked risk factors in shorter studies were of questionable human

relevance. Similar smaller studies conducted by the Japanese Pharmaceutical Manufacturers Association and the US FDA produced similar results. The NEG CARC Rat proposal will be briefly reviewed by Dan Morton, Carl Alden, and Todd Bourcier and the audience will be asked to make recommendations for a new testing strategy.

You are encouraged to attend this session and take the opportunity to provide your thoughts and concerns regarding this important topic.

Monday Sponsored Reception

Monday, June 25, 6:30 PM–10:30 PM
Salon G (4th Floor)

All attendees and their guest/spouse are invited. See page 40 for details.

Student Outing

Tuesday, June 26

The STP student outing will be a Scavenger Hunt along the Freedom Trail by Watson Adventures, on Tuesday afternoon, June 26. This will be a fun opportunity to meet fellow students, and interact with mentors. This function has been the highlight of past meetings for many students. Details were emailed to student registrants.

Awards Ceremony

Wednesday, June 27, 5:30 PM–5:50 PM
Salon E (4th Floor)

The Awards Ceremony will take place on Wednesday evening, June 27. STP Award recipients will be recognized at this time.

Annual Business Meeting

Wednesday, June 27, 5:50 PM–6:30 PM
Salon E (4th Floor)

The STP Annual Business Meeting will be held on Wednesday, June 27 immediately following the Awards Ceremony.

President's Reception

Wednesday, June 27, 7:00 PM–9:00 PM
Salon G (4th Floor)

The President's Reception will be held on Wednesday evening, June 27. One ticket to this event is provided to Member, Nonmember, Exhibitor, and Student Registrants as well as registered Guest/Spouse. Additional tickets can be purchased on-site for \$65. Attire will be casual. Please bring your President's Reception ticket provided with your badge.



General Information

Boston

Society of Toxicologic Pathology

Information

Registration

**Boston Marriott Copley Place, 4th Floor
Registration Desk**

Registration Desk Hours

Friday, June 22	4:00 PM–6:00 PM
Saturday, June 23	8:00 AM–6:00 PM
Sunday, June 24.....	7:00 AM–6:00 PM
Monday, June 25	7:00 AM–5:30 PM
Tuesday, June 26	7:30 AM–12:00 Noon
Wednesday, June 27	7:30 AM–5:30 PM
Thursday, June 28	7:30 AM–12:00 Noon

Registration Materials

Badges, *Program*, event tickets, and ribbons (if appropriate), will be available for pickup at the Registration Desk (see registration hours above). Attendees are encouraged to bring a bag or backpack as meeting bags will not be provided.

Meeting Materials

Meeting publications, handouts, attendee list, committee and ancillary meetings schedule, and evaluation forms will be posted on the Annual Meeting “Meeting Materials” page when available.

STP members will use their regular logins to access this page. Nonmember attendees will receive a login and passwords to access the site.



Scan this code for quick and easy access to up-to-date Annual Meeting information.

Symposium Registration

Member, nonmember, and Student full meeting registration fee include the symposium proceedings, access to scientific sessions, Exhibit Hall, daily continental breakfast, morning and afternoon breaks during the scientific sessions, Monday lunch in the Exhibit Hall, and admission for one to the Welcome Reception and President’s Reception.

Exhibitor Registration

Two full meeting registrations are provided to exhibiting companies with the purchase of each booth. The Exhibitor registration fee includes admission to the scientific sessions, Exhibit Hall access, daily continental breakfast, morning and afternoon breaks, Monday lunch held in the Exhibit Hall, and admission for one to the Welcome Reception and President’s Reception. The Exhibitor Registration fee (\$380) is for companies with more than two exhibitors. This reduced registration does not include admission to the scientific sessions, but does include continental breakfasts, breaks in the Exhibit Hall, and one admission to the Welcome Reception and President’s Reception.

Guest/Spouse Registration

The Guest/Spouse registration fee includes daily continental breakfast in the STP Guest/Spouse Hospitality Suite (Vermont Room, 5th Floor) at the Boston Marriott Copley Place, afternoon breaks, one admission to the President’s Reception, Welcome Reception, and a half-day tour.

One-Day Registration

One-Day Registration is offered Monday through Thursday and includes Scientific Session(s), continental breakfast and break(s), Exhibit Hall access (Monday–Wednesday). The Monday fee includes lunch in the Exhibit Hall; Wednesday includes one ticket for the President’s Reception.

SPECIAL MEMBERSHIP OFFER: Nonmembers who apply for membership prior to July 1 and who are accepted will receive complimentary dues for the remainder of 2012 and the journal issues for the remainder of the year. Please visit www.toxpath.org to apply for membership.

Speaker Ready Room

Orleans (4th Floor)

Friday, June 22	4:00 PM–6:00 PM
Saturday, June 23	8:00 AM–5:00 PM
Sunday, June 24.....	7:00 AM–5:00 PM
Monday, June 25	7:00 AM–5:00 PM
Tuesday, June 26	7:00 AM–12:00 Noon
Wednesday, June 27	7:00 AM–5:00 PM
Thursday, June 28	7:00 AM–11:00 AM

Headquarters Hotel

Boston Marriott Copley Place

110 Huntington Avenue
Boston, Massachusetts 02116

Phone: 617-236-5800

Guest/Spouse Hospitality Suite

Vermont Room (5th Floor)

The Guest/Spouse registration fee includes continental breakfast (Monday through Thursday) in the STP Guest/Spouse Hospitality Suite at the Boston Marriott Copley Place.

Monday, June 25 8:00 AM–5:00 PM
Tuesday, June 26 8:00 AM–12:15 PM
Wednesday, June 27 8:00 AM–5:00 PM
Thursday, June 28 8:00 AM–12:00 Noon

Poster Information

Back Bay Exhibit Hall (3rd Floor)

The poster board size is 4 x 8 Feet (horizontal) and requires the use of pushpins to hold it in place.

Poster set up and teardown times are as follows:

Poster Setup

Sunday, June 24 8:00 AM–3:00 PM
Your poster must be set up by 3:00 pm on Sunday, June 24.

Poster Teardown

Wednesday, June 27 1:00 PM–2:00 PM

If your poster is not removed before 2:00 pm on Wednesday, June 27 it will be removed and placed near the Registration Desk for pick up.

Poster Presentation Times

Please plan to attend your posters during the following times:

Sunday, June 24 (Optional) 5:30 PM–7:00 PM
Monday, June 25 10:00 AM–10:30 AM
.....and 3:05 PM–3:35 PM
Tuesday, June 26 10:00 AM–10:25 AM
Wednesday, June 27 10:10 AM–10:50 AM

Young Investigator Judging Times

Monday, June 25 7:15 AM–8:00 AM
..... 10:00 AM–10:30 AM
.....and 3:05 PM–3:35 PM
Tuesday, June 26 10:00 AM–10:25 AM

Exhibit Hall

Back Bay Exhibit Hall (3rd Floor)

The Exhibit Hall will be a center of activity during this year's Symposium, kicking off with a Welcome Reception in the Exhibit Hall on Sunday evening, June 24.

An exhibitor sponsored buffet luncheon in the Exhibit Hall will be offered for all registered attendees on Monday, June 25 and continental breakfasts and refreshment breaks will be held in the hall throughout the week. The popular Internet Café, where attendees can check email during exhibit hours, will be provided again this year during regular exhibit hours. Scientific poster sessions will also be held Sunday evening through Wednesday in the Exhibit Hall.

The Microscope and Digital Slide Viewing Room will also return to the Exhibit Hall this year. This is a great opportunity for attendees to meet and discuss slides.

The Society values the support of exhibitors and believes the relationship between exhibiting companies and the STP membership is a mutually beneficial one. Don't forget to visit the Exhibit Hall often in the Back Bay Exhibit Hall (3rd Floor).

Exhibit Hall Photography Policy for Attendees

Out of courtesy for the scientific presenters and exhibitors, we appreciate your compliance with the following policies:

- Photography of poster presentations is prohibited without the specific consent of the presenter(s)/author(s).
- Photography of exhibitor booths and/or equipment is prohibited without the specific consent of the exhibitor.

If you have any questions regarding these policies, please contact the STP Headquarters staff at the Registration Desk.

Exhibitor Setup

Saturday, June 23 1:00 PM–4:00 PM
Sunday, June 24 8:00 AM–3:00 PM
.....All exhibits must be set up by 3:00 PM

Exhibit Hall Hours

Sunday, June 24 (Welcome Reception) ... 5:30 PM–7:00 PM
Monday, June 25 7:00 AM–4:30 PM
Tuesday, June 26 7:00 AM–12:15 PM
Wednesday, June 27 7:00 AM–1:00 PM

Exhibitor Teardown

Wednesday, June 27 1:00 PM–5:00 PM

Internet Café

Be sure to take advantage of the computers in STP's Exhibit Hall! The Internet Café will be available during Exhibit Hall hours so that you can check email.



General Information

Boston

Society of Toxicologic Pathology

Microscope and Digital Slide Viewing Room

Back Bay Exhibit Hall (3rd Floor)

Please bring any slides you would like to discuss with colleagues during exhibit hours.

Thank you to Aperio and Leica Microsystems for providing the equipment.

Exhibit Hall Freedom Trail

Join in the hunt! The STP Exhibit Hall will be hosting a Treasure Hunt, named the **STP Freedom Trail**, around the Exhibit Hall during the 2012 STP Annual Symposium in Boston! We encourage attendees to participate in our own version of Boston's historic Freedom Trail.

STP attendees in Boston will not only be able to walk the historic Freedom Trail, visiting 16 nationally significant historic sites throughout the city and walking the footsteps of the brave people who shaped our national government, but also have the opportunity to meet and discuss with STP Exhibitors in the Exhibit Hall through our STP Freedom Trail. The Exhibit Hall Freedom Trail will give you the unique opportunity to meet with exhibiting companies throughout the toxicologic pathology community.

Attendees will receive a copy of the Exhibit Hall Freedom Trail map at registration and will be able to visit all STP Exhibitors from Sunday, June 24 starting at 5:30 pm until the Wednesday, June 27 at 1:00 pm. Exhibitors will indicate on attendees' maps that they have visited all of the STP Freedom Trail booths. Completed Freedom Trail maps can be turned into registration for spectacular prize drawings, which will be drawn at the President's Reception on Wednesday evening. Attendees must be present to win.

Take in the rich history of America's revolution while visiting Boston and the history of STP during our 31st Annual Symposium Exhibit Hall!



Sailboats on the Charles River

Safety and Security Tips

1. When inside the conference venue, nametags should be worn and visibly displayed at all times. For security reasons, we recommend that you DO NOT wear your badge outside of the conference venue. If you lose your badge, please notify registration immediately.
2. Walk in well-lighted areas at night and never alone.
3. Please do not leave any bags or articles unsecured in any display area, meeting room, or public area. Laptops and other small computers are easy targets for thieves. If you note any suspicious article, packages, persons, or activity please contact the event staff or security immediately.
4. Due to the nature of our meeting, there is a risk that we may be the target of protest activity. STP has a response plan to address this possibility. Here are some guidelines to deal with protest activity:
 - a. If you see a protest forming or in progress, you should notify STP or venue staff immediately. We will implement our response plan to ensure our meeting is safe and secure.
 - b. Do not attempt to engage or argue with protestors. These groups seek confrontation as a tool for publicity.
 - c. Do not give interviews to press personnel. STP representatives will respond to the press.
 - d. If you notice any suspicious individuals in the meeting areas or hotel, especially handing out literature, please notify STP security or venue security personnel. You should not attempt to engage these persons or stop them yourself
 - e. If there is a disruption in a meeting room, you should remain calm. Notify security and allow them to deal with the disruption.
5. Do not give your lodging information to any person outside of known STP staff.
6. Photography is not permitted in the Exhibit Hall. This includes digital pictures taken using cell phone cameras.
7. Large packages and bags are not permitted in the Exhibit Hall area.

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Roche, USA



Make your mark. Improve lives.

Who we are

At Roche, our success is built on innovation, curiosity, and diversity – multiplied by 80,000 professionals in 150 countries. As one of the world’s leading research-focused healthcare groups, we’re constantly learning and growing – and seeking people who have those same goals for themselves.

We have the following opportunity for a highly qualified expert to join us in our Nutley, NJ location:

Director/Senior Director Pathology

The ideal candidate for this position will provide leadership, scientific guidance and anatomic pathology support for basic research and preclinical safety projects in several therapeutic disciplines. The pathologist will support both small molecule and therapeutic protein programs. The candidate will coordinate all internal pathology activities to support toxicological/non-clinical safety evaluations of development compounds and externally with contract laboratories, consultants, and development partners. As a senior member of the global Non-Clinical Safety (NCS) organization, the Head of Pathology will collaborate with the Basel and Penzberg Pathology groups, and will contribute to the overall pathology capabilities throughout the entire research organization.

This position requires DVM/VMD and an advanced MS/PhD degree, as well as board certification in veterinary pathology (ACVP). Additionally, a minimum of 10 years’ experience in toxicologic pathology and drug development in a GLP environment, with a demonstrated ability to make sound scientific interpretations and assessments of pathology data and its relevance to human safety are required.

Who you are

You’re someone who wants to influence your own development. You’re looking for a company where you have the opportunity to pursue your interests across functions and geographies, and where a job title is not considered the final definition of who you are, but the starting point.

The next step is yours. To apply online today or learn about other exciting positions, please visit <http://www.careers.roche.com> and search for **Req #00390218**.

Roche is an Equal Opportunity Employer fully committed to workplace diversity.



We Innovate Healthcare



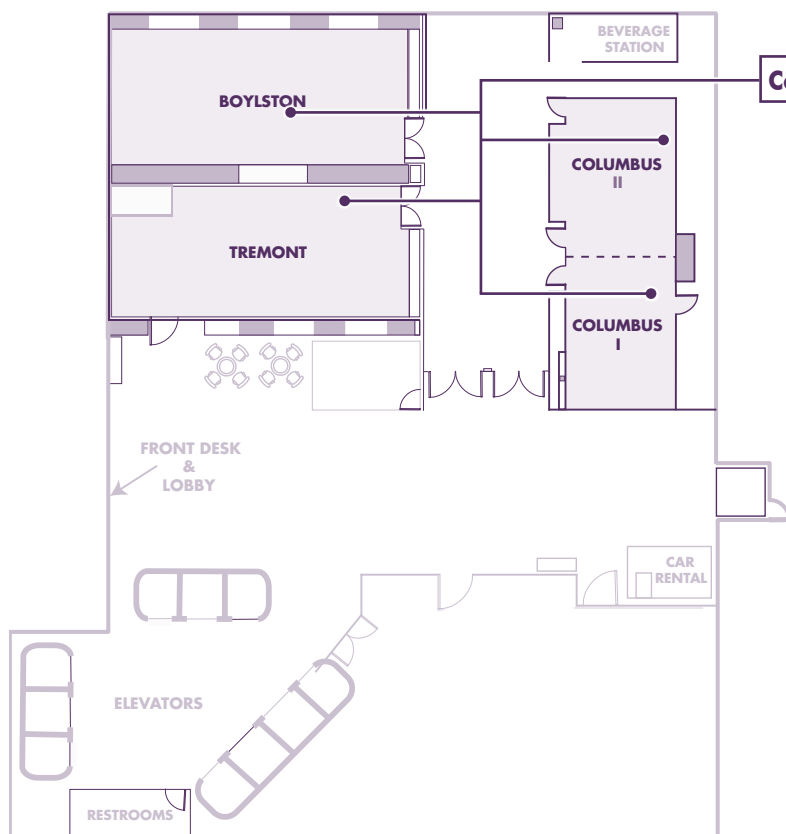
General Information

Boston

Society of Toxicologic Pathology

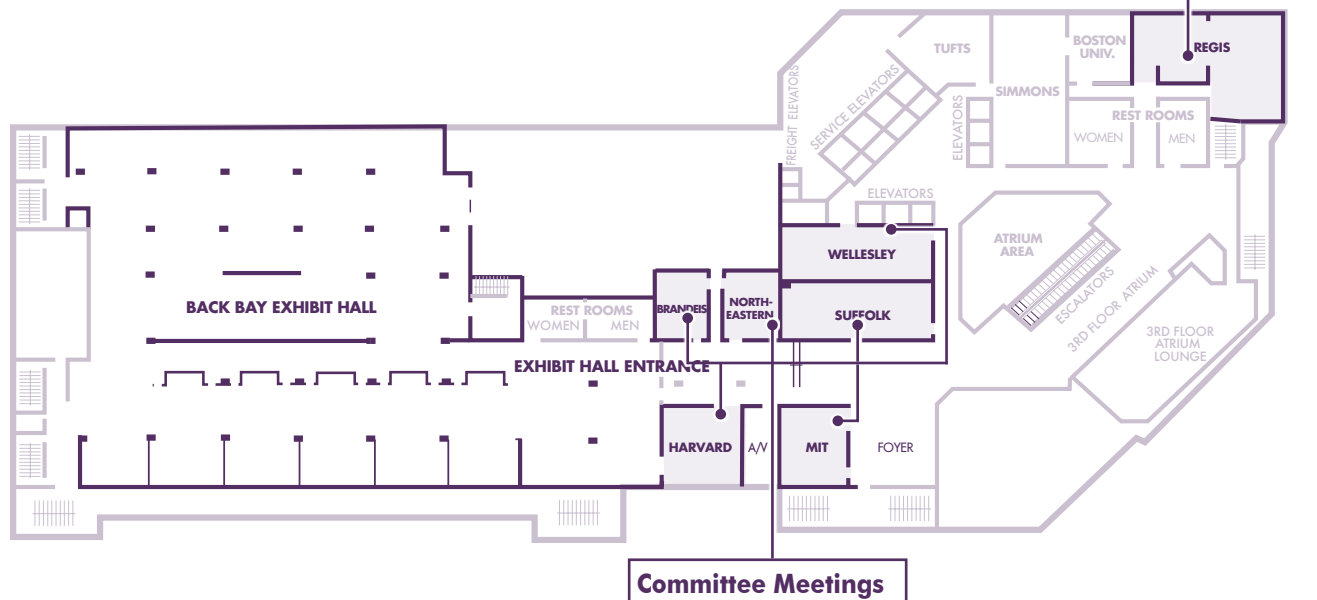
Boston Marriott Copley Place

1st Floor

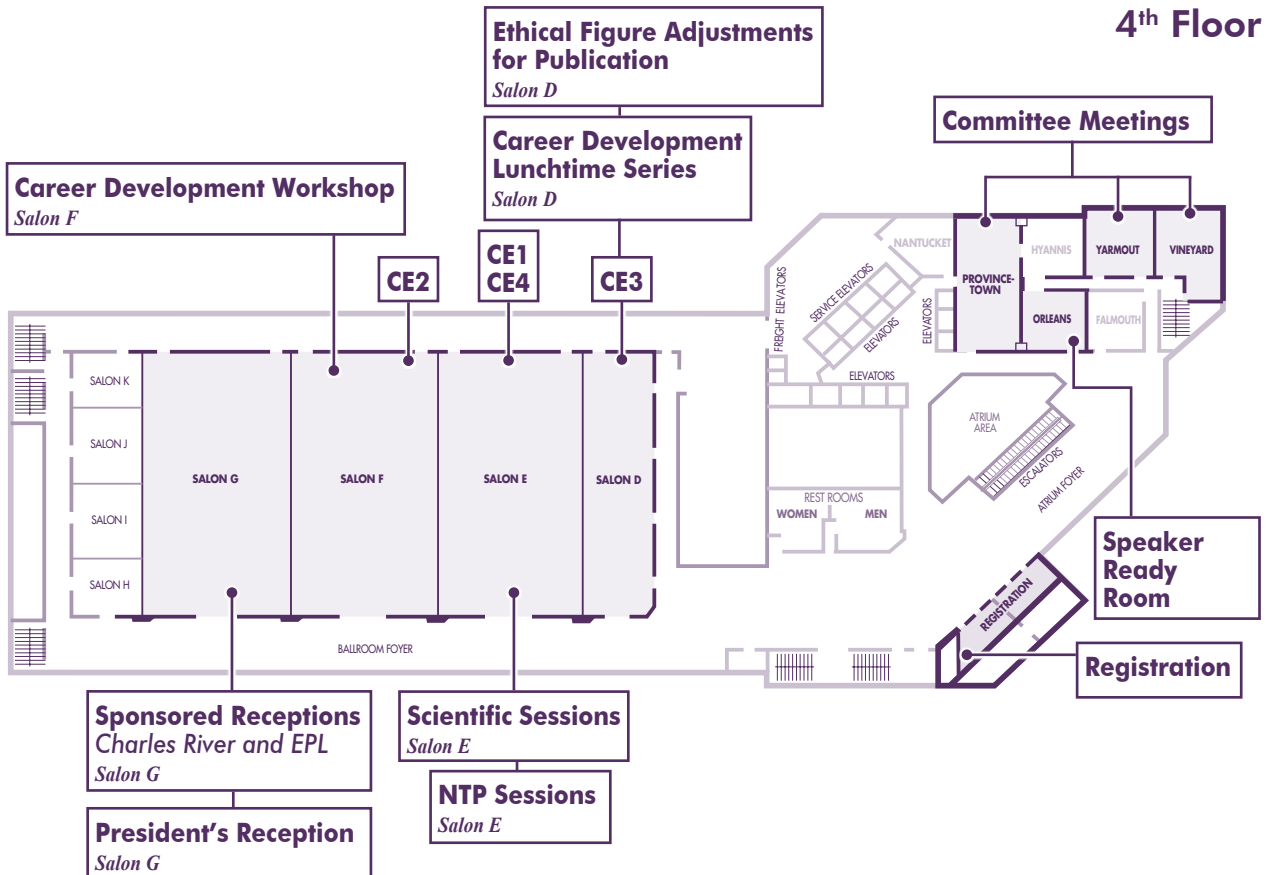


Information

3rd Floor



Boston Marriott Copley Place



Information



Program

Boston

Society of Toxicologic Pathology

Program

Mechanisms of Toxicity

Scientific Co-Chairs: Richard Peterson, DVM, PhD, DACVP, GlaxoSmithKline, Research Triangle Park, NC, Carl Alden, DVM, DACVP, Millennium Pharmaceuticals Inc, Lawrenceburg, IN, and Daniel Rudmann, DVM, PhD, DACVP, Eli Lilly and Company, Indianapolis, IN

The global regulatory agencies and the general public require outstanding scientific rigor and quality in the human risk assessment of xenobiotics. To meet these demands, the toxicology and pathology professions are positioned to take advantage of key learnings captured from major advances in the molecular understanding of host defense, disease, and toxicity processes. The purpose of the 2012 Annual Symposium of the Society of Toxicologic Pathology will be to examine mechanisms of toxicity in six general sessions covering tissue injury related to the following:

- 1) host factors, 2) chemical structure, 3) xenobiotic cellular targets (on- and off-target), 4) new technologies (e.g., nanotechnology, siRNA therapy and immunoconjugates), 5) cellular organelle specific effects, and 6) high-profile environmental chemicals and consumer products.

Saturday, June 23

NTP Satellite Symposium: Pathology Potpourri

Salon E (4th Floor)

9:00 AM–4:30 PM

The object of this interactive symposium is to provide continuing education on interpreting pathology slides, to generate lively and productive conversation, and to have a good time! The theme for the symposium this year is Pathology Potpourri, back by popular demand.

During each talk, the speakers will project a series of lesion images on one screen with a choice of diagnoses/answers on a separate screen. The members of the audience with wireless keypads will then vote anonymously and the voting results will be displayed on the screen. After each voting session, time is allowed for discussion. The images presented for voting and discussion may represent lesions that are rare and interesting, present a diagnostic challenge, are controversial or have nomenclature dilemmas.

The proceedings are published each year in the Journal of Toxicologic Pathology:

- Bach et al. 2010. *Toxicol Pathol.* 38:9–36
- Adams et al. 2011. *Toxicol Pathol.* 39:240–266
- Boorman et al. 2012. *Toxicol Pathol.* 40:321–344

This is a free Saturday session for meeting attendees but due to space limitations registration is required.

9:00 AM–9:10 AM

Welcome and Introductory Remarks

Susan A. Elmore, MS, DVM, DACVP, DABT, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC

9:10 AM–9:40 AM

"YM" I Presenting This? It's a "Crystal" Clear Diagnosis!

Mark Hoenerhoff, DVM, PhD, DACVP, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC

9:40 AM–10:10 AM

Cortical Conundrums

Victoria Laast, DVM, PhD, Covance Laboratories, Inc., Chantilly, VA

10:10 AM–10:30 AM

An Inimitable Liver Lesion

Susan A. Elmore, MS, DVM, DACVP, DABT, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC

10:30 AM–11:00 AM

Break

11:00 AM–11:30 AM

Schwa–Yes or No–Ma?

Michael C. Boyle, DVM, DACVP, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC

11:30 AM–12:00 Noon

Nothing More Than a Heartbreak

Matthias Rinke, DVM, Bayer Pharma AG, Wuppertal, Germany

12:00 Noon–1:30 PM

Lunch

1:30 PM–1:50 PM

A Perplexing Pancreatic Lesion

Katsuhiko Yoshizawa, DVM, PhD, Kansai Medical University, Osaka, Japan

1:50 PM–2:10 PM

Liver and Blood: The Odd Couple

Linda Kooistra, DVM, PhD, DACVP, Charles River Laboratories, PAI, Research Triangle Park, NC

2:10 PM–2:40 PM

A Slit in the Pit

Deepa Rao, BVSc, PhD, DABT, DACVP, Integrated Laboratory Systems, Inc., Research Triangle Park, NC

2:40 PM–3:00 PM

Name That Anemia

Michelle Cora, DVM, DACVP, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC

3:00 PM–3:30 PM

Break

3:30 PM–4:00 PM

Ontogenic Pitfalls

Jim Morrison, DVM, DACVP, Charles River Laboratories, PAI, Research Triangle Park, NC

4:00 PM–4:30 PM

Response to Injury: The Heart of the Matter

Brian Berridge, DVM, PhD, DACVP, GlaxoSmithKline, Research Triangle Park, NC

7:00 PM–10:00 PM

Sponsored Reception

Salon G (4th Floor)

Sunday, June 24

Continuing Education Credits

AAVSB RACE Provider #56

The CE Courses have been submitted and approved for three and a half to four hours of Continuing Education credits (per course) in jurisdictions which recognize AAVSB RACE approval; however participants should be aware that some boards have limitations on the number of hours accepted in certain categories and/or restrictions on certain methods of delivery of Continuing Education. The Scientific Sessions have been submitted and approved by AAVSB RACE program for 20 hours of Continuing Education credits in jurisdictions which recognize AAVSB RACE approval. The NTP Satellite Symposium has been submitted and approved by the AAVSB RACE program for five and a half hours of continuing education credits in jurisdictions which recognize AAVSB RACE approval. Certificates of attendance will be provided at the conclusion of NTP, each CE course, and on Thursday for the scientific sessions. Please contact the AAVSB RACE program if you have any comments/concerns regarding this program's validity or relevancy to the veterinary profession.

Continuing Education Courses

CE 1 (Sunday AM) 8:00 AM–12:00 Noon

Salon E (4th Floor)

Mechanism-Based Approaches to Cardiovascular Safety Assessment

Co-Chairs: Brian Berridge, DVM, PhD, DACVP, GlaxoSmithKline, Research Triangle Park, NC, and Michael Boyle, DVM, DACVP, National Institute of Environmental Health Sciences, Research Triangle Park, NC

This session will explore current understandings of mechanisms of toxicity in the cardiovascular system and put that understanding in the context of how we do our nonclinical assessments. An introductory overview will bring the audience to a common level of understanding around cardiovascular form and function, potential cellular and molecular targets of toxicity, and bridge into the compromised target patient population. Subsequent sessions will explore contemporary and mechanistically-diverse areas of toxicity. Individual presentations will review our current level of understanding with respect to mechanisms of toxicity, review how current assessment paradigms address (or not) these mechanisms, and offer biomarker recommendations.

8:00 AM–8:05 AM

Introduction

8:05 AM–8:25 AM

Introduction to the Cardiovascular System As a Target of Drug-Induced Toxicity

Michael Boyle, DVM, DACVP, National Institute of Environmental Health Sciences, Research Triangle Park, NC

8:25 AM–9:05 AM

Cardiovascular Toxicity of Oncology Drugs

Thomas Force, MD, Center for Translational Medicine, Temple University School of Medicine, Philadelphia, PA

9:05 AM–9:45 AM

Structural Cardiovascular Injury and Hemodynamically-Active Drugs: The Structure- Function Interface

Heath C. Thomas, DVM, PhD, DACVP, GlaxoSmithKline Safety Assessment, King of Prussia, PA

9:45 AM–10:00 AM

Break



Program

Boston

Society of Toxicologic Pathology

10:00 AM–10:40 AM

Mitochondrial Dysfunction and Cardiotoxicity

Ingrid Pruijboom-Brees, DVM, PhD, DACVP, Novartis Pharma AG, Basel, Switzerland

10:40 AM–11:20 AM

Cardiomyocyte Calcium Handling and Cardiotoxicity

Michael Quaile, PhD, GlaxoSmithKline Laboratory Animal Sciences, Research Triangle Park, NC

11:20 AM–12:00 Noon

Biomarkers of Cardiotoxicity—Challenges for Present and Future

Eric Schultze, DVM, PhD, DACVP, FIATP, Lilly Research Laboratories, Indianapolis, IN

Career Development Workshop

Sunday, June 24

8:00 AM–12:00 Noon

Salon F (4th Floor)

Presentation Skills and Scientific Advocacy

(Free Event, registration required)

Co-Chairs: Julie Johnson, DVM, PhD, DACVP, Abbott Laboratories, Abbott Park, IL, and Lyn Wancket, DVM, The Ohio State University, Columbus, OH

Presented by Steven Cohen, Executive Vice President of ECG, The Communication Strategy Company, Englewood, NJ

Goals and Objectives

- Develop an appreciation for the differences between an adequate and an excellent presentation.
- Begin building the skills required to design an effective, high-impact scientific presentation with a strong rhetorical and persuasive structure and deliver it with confidence and clarity.
- Improve ability to deliver strong scientific advocacy.
- Understand the challenges of formal presentations, including US FDA Advisory Committee meeting presentations.

CE 2 (Sunday PM) 1:30 PM–5:00 PM

Salon F (4th Floor)

Nontraditional Applications of Clinical Pathology in Drug Discovery and Preclinical Toxicology

Co-Chairs: Shashi Ramaiah, DVM, PhD, DACVP, DABT, Pfizer Global Research and Development, Cambridge, MA, and Holly Jordan, DVM, PhD, DACVP, GlaxoSmithKline, Research Triangle Park, NC

The objective of this unique clinical pathology course is to present and discuss contemporary examples of nonroutine applications of clinical pathology endpoints used in the drug development setting. Topics will be of interest to those with or without clinical pathology experience. Area experts will discuss bone turnover markers of laboratory animal species, clinical pathology of juvenile animals and nonroutine laboratory animal species and unique applications of the Advia Hematology platform.

1:30 PM–1:35 PM

Introduction

1:35 PM–2:20 PM

Biomarkers of Bone Metabolism in Preclinical Studies

Thomas C. Register, PhD, Wake Forest School of Medicine, Winston-Salem, NC

2:20 PM–3:05 PM

Clinical Pathology of Pregnant and Juvenile Animals

Anne Provencher Bolliger, DVM, MSc, DACVP, DECVP, FIATP, Charles River Laboratories, Sherbrooke, QC

3:05 PM–3:25 PM

Break

3:25 PM–4:10 PM

Clinical Pathology of Nonroutine Species

Niraj K. Tripathi, BVSc, MVSc, PhD, DACVP, Covance Laboratories, Inc, Madison, WI

4:10 PM–5:00 PM

Unique Applications of the Advia Hematology Analyzer

Denise Bounous, DVM, PhD, DACVP, Bristol-Myers Squibb Company, Princeton, NJ, Nancy Everds, DVM, DACVP, FIATP, Amgen, Inc., Seattle, WA, and Florence Poitout, DVM, DACVP, DECVP, Charles River Laboratories, Senneville, QC

CE 3 (Sunday PM) 1:30 PM–5:00 PM

Salon D (4th Floor)

American College of Toxicology—Sponsored: Drug Development 101

Co-Chairs: Hanan Ghantous, PhD, DABT, US FDA, Silver Spring, MD, and Lorrene Buckley, PhD, DABT, Lilly Research Laboratories, Indianapolis, IN

Drug development is a term used to define the entire process of bringing a new drug or device to the market. It is an integrated, multidisciplinary endeavor which includes drug discovery chemistry and pharmacology, nonclinical safety testing, manufacturing, clinical trials, and regulatory submissions. This workshop will overview the contributions of each area, with a focus on safety assessment, and some of the challenges that can arise. The workshop will also cover the information that should be included in INDs and NDAs submitted to US FDA as well as advice on how to write a good IND/NDA.

1:30 PM–1:35 PM

Introduction

1:35 PM–2:15 PM

What Goes in, What Goes on, What Comes out: An Overview of CMC Development

Eric C. Jensen, PhD, Lilly Research Laboratories, Indianapolis, IN

2:15 PM–2:55 PM

The Role of Toxicology in Drug Development

Lorrene Buckley, PhD, DABT, Lilly Research Laboratories, Indianapolis, IN

2:55 PM–3:25 PM

Break

3:25 PM–4:05 PM

Introduction to Clinical Trials

Yodit Belew, MD, US FDA, Silver Spring, MD

4:05 PM–4:45 PM

Regulatory Submissions and the Review Process

Mark W. Powley, PhD, US FDA, Silver Spring, MD

4:45 PM–5:00 PM

Wrap Up

CE 4 (Sunday PM) 1:30 PM–5:25 PM

Salon E (4th Floor)

The Placenta As an “Immune Organ” and Its Relevance in Toxicological Studies

Co-Chairs: Eberhard Buse, PhD, Prof. Dr., Covance Laboratories GmbH, Muenster, Germany, and Darlene Dixon, DVM, PhD, DACVP, National Institute of Environmental Health Sciences, Research Triangle Park, NC

The immune system plays a key role in host protection against potential pathogens, as well as foreign (nonself) proteins and altered cells with tumorigenic potential. The foreign fetal nonself proteins cause an immunologic materno-fetal conflict which has to be resolved in the placenta. The maternal rejection apparatus and the primarily fetal tolerance mechanisms involve delicate and well-controlled immune processes which take place, in large part, in the placenta.

1:30 PM–1:35 PM

Introduction

1:35 PM–2:10 PM

Anatomy Meets Toxicology: Placental Morphology Determines Value of Experimental Animals as Models

Jan-Dirk Haeger, PhD, University of Veterinary Medicine Hannover, Hannover, Germany

2:10 PM–2:45 PM

Nonhuman Primate (NHP, Cynomolgus Monkey) Placenta and Its Immune Equipment

Eberhard Buse, PhD, Prof. Dr., Covance Laboratories GmbH, Münster, Germany

2:45 PM–3:05 PM

Break

3:05 PM–3:40 PM

Changes in the Peripheral Immune Response during Pregnancy

Marijke M. Faas, PhD, Prof. Dr., University Medical Center Groningen, Groningen, Netherlands

3:40 PM–4:15 PM

Local Adaptation of the Maternal Immune System in Human Pregnancy

Jan Ernerudh, MD, Prof. Dr., Linköping University, Linköping, Sweden



Program

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4:15 PM–4:50 PM

The Human Placenta for Toxicology Assessment

Udo R. Markert, PhD, Prof. Dr., University Hospital Jena, Jena, Germany

4:50 PM–5:25 PM

Pathologic Assessment of the Placenta

J. Mark Cline, DVM, PhD, DACVP, Wake Forest School of Medicine, Winston-Salem, NC

5:30 PM–7:00 PM

STP Welcome Reception

Back Bay Exhibit Hall (3rd Floor)

Monday, June 25

Monday Morning

7:00 AM–8:00 AM

Continental Breakfast

Back Bay Exhibit Hall (3rd Floor)

7:00 AM–4:30 PM

Exhibits and Posters Open

Back Bay Exhibit Hall (3rd Floor)

8:00 AM–8:05 AM

Symposium Welcome

Salon E (4th Floor)

Thomas Monticello, DVM, PhD, DACVP, Amgen, Thousand Oaks, CA, STP President

8:05 AM–8:10 AM

Introduction

Richard Peterson, DVM, PhD, DACVP, GlaxoSmithKline, Research Triangle Park, NC, Carl Alden, DVM, DACVP, Millennium Pharmaceuticals Inc, Lawrenceburg, IN, and Daniel Rudmann, DVM, PhD, DACVP, Eli Lilly and Company, Indianapolis, IN

8:10 AM–9:00 AM

Keynote Address: Formaldehyde Research: 30+ Years and Counting for Mode of Action Epidemiology, and Risk Assessment

James A. Swenberg, DVM, PhD, DACVP, University of North Carolina at Chapel Hill, Chapel Hill, NC

Session 1

9:00 AM–12:00 Noon

Salon E (4th Floor)

Host Factors and the Expression of Toxicologic Effects

Co-Chairs: Marlon Rebelatto, DVM, PhD, DACVP, MedImmune, LLC., Gaithersburg, MD, and Paul Sbruder, DVM, PhD, DACVP, Purdue University, West Lafayette, IN

Even though the genomes of individuals are 99.9% identical, the small 0.1% difference predicts millions of polymorphisms, some of which will affect protein expression and function, resulting in toxicologic response phenotypes. Likely every immunologic response to injury as well as every pathway involved in xenobiotic metabolism and transport will have variations due to different patient group's genetic profile. Environmental agents may result in alterations in gene expression that might ultimately lead to a toxicity phenotype via epigenetic mechanisms. In addition, factors such as metabolic disease and nutritional status may impact the individual response to xenobiotic exposure. An understanding of host-specific toxicologic responses is important in the refined risk assessment. This session will examine some of these host specific factors that can lead to an injury phenotype.

9:00 AM–9:05 AM

Introduction

9:05 AM–10:00 AM

Genetic Basis of the Response to Drugs and Chemicals

John E. French, PhD, National Institute of Environmental Health Sciences, Research Triangle Park, NC

10:00 AM–10:30 AM

Break

10:30 AM–11:15 AM

Effect of Obesity on the Response to Drugs and Chemicals

Kevin Keenan, DVM, PhD, DACVP, Charles River, Pathology Associates, Doylestown, PA

11:15 AM–12:00 Noon

Effect of Infectious Diseases on the Host Response to Drugs

Judit Markovits, DVM, PhD, DACVP, Novartis Institutes for Biomedical Research, Cambridge, MA

12:00 Noon–1:30 PM

Exhibitor Sponsored Lunch

*For Scientific Attendees
Back Bay Exhibit Hall (3rd Floor)*

Career Development Lunchtime Series

12:30 PM–1:30 PM

Salon D (4th Floor)

Careers in Environmental Toxicology

Presented by the STP Career Development and Outreach Committee

(Free Event, registration required)

Panelists and audience members will discuss a variety of careers in which toxicologic pathologists play an important role in the field of environmental toxicology. The session will allow attendees to become more familiar with this area of toxicologic pathology by direct interaction with a panel encompassing multiple subspecialties in the field. This topic is timely for the 2012 lunchtime series given the initiation of an interest group and scientific session focused on Environmental Toxicologic Pathology at the 2011 STP meeting.

Panelists for the Lunchtime Session include:

- **Chemical Industry**
David L. Eisenbrandt, DVM, PhD, DACVP, Dow AgroSciences LLC, Parker, CO
- **Industrial Exposure**
Ann Hubbs, DVM, PhD, DACVP, NIOSH, Centers for Disease Control and Prevention, Morgantown, WV
- **Aquatic Species and Wildlife**
Jeffrey Wolf, DVM, DACVP, EPL, Inc, Sterling, VA
- **Academia/Respiratory**
Dennis Wilson, DVM, PhD, DACVP, UC Davis, Davis, CA
- **National Toxicology Program**
David E. Malarkey, DVM, PhD, DACVP, National Institute of Environmental Health Sciences, Research Triangle Park, NC



Hatch Shell Outdoor Concert Hall

Monday Afternoon

Session 2

1:30 PM–5:00 PM

Salon E (4th Floor)

Morphologic and Molecular Underpinnings of Organelle Toxicity

Co-Chairs: Charles W. Qualls Jr., DVM, PhD, DACVP, Amgen, Thousand Oaks, CA, and Lee Silverman DVM, PhD, DACVP, Agios Pharmaceuticals, Cambridge, MA

Organelle toxicity has historically been evaluated by morphologic criteria primarily, transmission electron microscopy. More specific understanding of molecular mechanisms of organelle-based toxicity is quickly expanding. During this session we will bring classic and cutting-edge methods of evaluation together. There will be an overview of classic ultrastructural organellar toxicologic manifestations that will include information related to molecular mechanisms. We will then delve into more in-depth discussions exploring the emerging understanding of the molecular mechanisms that define autophagy, ER stress, and the differentiation of apoptosis from programmed necrosis. In addition, the relation of these molecular mechanisms to pathologic processes will be discussed.

1:30 PM–1:35 PM

1:35 PM–2:15 PM

Introduction

Ultrastructural Pathology and Interorganelle Crosstalk in Hepatotoxicity

Norman Cheville, DVM, PhD, DACVP, DHonC, Iowa State University, Ames, IA

2:15 PM–3:05 PM

Molecular Mechanisms That Differentiate Apoptosis from Programmed Necrosis

Gerald W. Dorn II, MD, Washington University in St. Louis School of Medicine, St. Louis, MO

3:05 PM–3:35 PM

3:35 PM–4:20 PM

Break

Autophagy—A Distinct Cellular Trafficking Mechanism

Natalie Roy D'Amore, PhD, Millennium: The Takeda Oncology Company, Cambridge, MA

4:20 PM–5:00 PM

The Endoplasmic Reticulum Stress Response in Toxicity and Disease

James L. Stevens, PhD, Lilly Research Laboratories, Indianapolis, IN



Program

Boston

Society of Toxicologic Pathology

Program

Town Hall Meeting

5:30 PM–6:30 PM

Salon E (4th Floor)

New Paradigm Needed for Carcinogenicity Risk Assessment

Carcinogenicity testing methods for new pharmaceuticals have not changed significantly in over three decades and do not reflect current scientific knowledge. A new proposal has emerged to reduce the use of the two-year rat bioassay for pharmaceutical testing by approximately 40% without compromise to patient safety. An analysis of chronic and carcinogenicity studies conducted with 184 compounds indicates that the proposed "NEG CARC Rat" test criteria (Negative for Endocrine, Genotoxicity, and Chronic study Associated histopathologic Risk factors for Carcinogenicity in the Rat) correctly predict positive and negative rodent carcinogenicity outcomes for approximately 80% of compounds. All 13 compounds with positive rodent carcinogenicity findings that lacked risk factors in shorter studies were of questionable human relevance. Similar smaller studies conducted by the Japanese Pharmaceutical Manufacturers Association and the US FDA produced similar results. The NEG CARC Rat proposal will be briefly reviewed by Dan Morton, Carl Alden, and Todd Bourcier and the audience will be asked to make recommendations for a new testing strategy.

5:30 PM–5:35 PM

Introduction and Overview of the NEG CARC Rat Paradigm

Carl Alden, DVM, DACVP, Millennium Pharmaceuticals Inc, Lawrenceburg, IN

5:35 PM–5:40 PM

Regulatory Status Update

Todd Bourcier, PhD, Division of Metabolic & Endocrine Products, CDER, US FDA, Silver Spring, MD

5:40 PM–6:30 PM

Q&A

Dan Morton, DVM, PhD, DACVP, Todd Bourcier, PhD, and Carl Alden, DVM, DACVP

6:30 PM–9:30 PM

Sponsored Reception Salon G (4th Floor)

Tuesday, June 26

Tuesday Morning

7:00 AM–8:00 AM

Continental Breakfast

Back Bay Exhibit Hall (3rd Floor)

7:00 AM–12:15 PM

Exhibits and Posters Open

Back Bay Exhibit Hall (3rd Floor)

Session 3

8:00 AM–12:10 PM

Salon E (4th Floor)

Target-Related and Off-Target Based Toxicologic Effects

Co-Chairs: Dominique Brees, DVM, PhD, DACVP, Novartis Pharma AG, Basel, Switzerland, and Daniel Rudmann, DVM, PhD, DACVP, Eli Lilly and Company, Indianapolis, IN

The vast majority of adverse toxicologic effects can be placed into one of three categories including chemical-based, target-related or off-target effects (the latter two mainly in the case of chemotherapeutics). Target-related effects refers to exaggerated and adverse pharmacologic effects at the target of interest in the test system. Off-target effects refers to adverse effects as a result of modulation of other targets; these may be related biologically or totally unrelated to the target of interest. Both the decision to develop and the risk assessment of a xenobiotics are influenced by this understanding. It is imperative that the toxicologic pathologist use the toxicologic and biologic data at hand and literature information on the target to form testable hypotheses related to target vs. off-target mechanisms or even chemical-based mechanisms of toxicity. The objective of this session will be to examine specific examples of target and off-target based effects and strategies for differentiating these three possibilities in human risk assessment.

8:00 AM–8:05 AM

Introduction

8:05 AM–8:45 AM

Application of Genomic Dose-Response Analysis to Chemical Risk Assessment: A Potential Strategy to Examine Target-Related and Off-Target Effects

Rusty Thomas, PhD, The Hamner Institutes for Health Sciences, Research Triangle Park, NC



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- Effects of Nanomaterials on Biological Systems
- Molecular Basis of Genetic Variability and Susceptibility to Toxicants
- Regulatory Science: Advancing New Approaches for Hazard Identification and Risk Assessment

Continuing Education Target Areas

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- Molecular Imaging
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2013 Abstract Submission
August 13–October 3, 2012

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www.toxicology.org.

8:45 AM–9:25 AM

The Species-Specific Mechanism-Based Challenge: P38 Kinase Effects in Dogs, an Example of Species-Specific Mechanism-Based Toxicologic Effects

John Sagartz, DVM, PhD, DACVP, Seventh Wave, Chesterfield, MO

9:25 AM–10:00 AM

Unexpected Prostate Effect in Dogs with the Aldosterone Receptor Blocker, Eplerenone

Stuart Levin, DVM, PhD, DACVP, Takeda Global Research and Development, Deerfield, IL

10:00 AM–10:25 AM

Break

10:25 AM–11:00 AM

Unexpected Effects of Large Molecules on Peripheral Blood Cells

Nancy Everds, DVM, DACVP, FIAP, Amgen, Inc., Seattle, WA

11:00 AM–11:35 AM

On-Target GLP-1 Agonist Effects on Thyroid C-Cell Proliferation

Thomas Rosol, DVM, PhD, DACVP, The Ohio State University, Columbus, OH

11:35 AM–12:10 PM

Panel Discussion on Deciphering On-Target and Off-Target Toxicity

Ingrid M. Pruijboom-Brees, DVM, PhD, DACVP, Maria Cristina de Vera Mudry, DVM, PhD, Nancy Everds, DVM, DACVP, FIATP, John R. Foster, BSc, PhD, FRCPath, FIATP, HonFBTS, James R. Hartke, DVM, PhD, DACVP, Thomas Rosol, DVM, PhD, DACVP, John Sagartz, DVM, PhD, DACVP, and Rusty Thomas, PhD

Tuesday Afternoon

Free Time

Wednesday, June 27

Wednesday Morning

7:00 AM–8:00 AM

Continental Breakfast

Back Bay Exhibit Hall (3rd Floor)

7:00 AM–1:00 PM

Exhibits and Posters open

Back Bay Exhibit Hall (3rd Floor)

Session 4

8:00 AM–12:00 Noon

Salon E (4th Floor)

Chemical-Based Tissue Reactivity

Co-Chairs: James Klaunig, PhD, ATS, Indiana University, Bloomington, IN, and Richard Peterson, DVM, PhD, DACVP, GlaxoSmithKline, Research Triangle Park, NC

Xenobiotics have chemical structures that are foreign to living organisms, though they are sometimes produced to mimic endogenous molecules. Chemicals interact with cells, biochemical pathways and physiologic systems by virtue of their chemical structure. Recognizing that effects may be dependent on individual susceptibility, the majority of adverse effects can be placed into one of three categories including chemical-based, target-related, or off-target effects (the latter two mainly in the case of chemotherapeutics). Chemical-based reactivity is dependent on xenobiotic absorption, distribution, metabolism, transport, target tissue concentration and secretion leading to molecular processes such as covalent binding, lipid peroxidation, mitochondrial dysfunction, and/or redox cycling. This session will examine various toxicologic mechanisms of chemical-based tissue reactivity.

8:00 AM–8:10 AM

Introduction

8:10 AM–8:50 AM

Mechanisms of Oxidant Injury and Oxidant Defense

James Klaunig, PhD, ATS, Indiana University, Bloomington, IN

8:50 AM–9:30 AM

Nuclear Receptors, Ligand-Activated Transcription Factors: Role in Cell Injury

Andrew Patterson, PhD, Pennsylvania State University, University Park, PA

9:30 AM–10:10 AM

Reactive Intermediates

Terrence Monks, PhD, The University of Arizona, Tucson, AZ

10:10 AM–10:50 AM

Break



Program

Boston

Society of Toxicologic Pathology

10:50 AM–11:30 AM

DNA Reactivity/Genetic Toxicity

Julian Preston, PhD, National Institute of Environmental Health Sciences, US EPA, Durham, NC

11:30 AM–12:00 Noon

Student Presentation Role of Galectin-3 (Gal-3) in Classical and Alternative Macrophage Activation during Acetaminophen (APAP)-Induced Hepatotoxicity

Ana-Cristina Dragomir, Rutgers University, Piscataway, NJ

in advance. If you wish to make an appointment, select appropriate choice when registering. You will be contacted for scheduling. Adobe PhotoShop will be the primary image adjustment software used to this interactive workshop.

Wednesday Afternoon

Ethical Figure Adjustments for Publication

12:00 Noon–1:30 PM

Salon D (4th Floor)

Part 2 of Responsible Authorship and Publication Practices

Sponsored by IATP and STP

(With one-on-one session (optional). Registration required. Box lunch is included.)

Electronic images of graphs, charts, blots, photomicrographs, etc. are typically provided as part of manuscript submissions to journals. With the currently available image adjustment programs, it is relatively easy to modify any of the various figures submitted along with manuscript text for publication in scientific journals. Photomicrographs captured with electronic cameras often need adjustment for white balance and require some sharpening. While global image adjustment changes are generally accepted, other electronic image adjustments are considered unethical. The purpose of this workshop is to present practical approaches and techniques for image adjustment, with emphasis on photomicrographs. Following the 90-minute presentation, individuals may bring specific questions and problem images for one-on-one interaction with imaging experts.

The session presentations will be held from 12:00 noon to 1:30 pm. A charge of \$50 at the time of registration will cover the cost of a box lunch. Following the presentation, individuals may interact with imaging experts at work stations. Appointments must be made

Session 5

1:30 PM–5:00 PM

Salon E (4th Floor)

Mechanisms of Toxicity: High-Profile Environmental Chemicals and Consumer Products

Co-Chairs: *Jack Harkema, DVM, PhD, DACVP, Michigan State University, East Lansing, MI, and David Malarkey, DVM, PhD, DACVP, National Institute of Environmental Health Sciences, Research Triangle Park, NC*

Multinationals reach around the world providing products to populations that can total in the billions. Products are increasingly developed by the least cost producer sometimes in countries without well-established consumer protection institutions. Often, products that have extensive distribution and utilization for decades continue to be controversial, sometimes because modern testing methodology has not been applied or because risks have been identified more recently. Products with extensive human exposure as well as heightened recognition and concern include medicinals, construction materials, manufacturing/plastics, food/water storage containers, food adulterants and contaminants, and persisting environmental pollutants. This session will address these important toxicants including review the source, toxicologic effects, and pathogenesis.

1:30 PM–1:35 PM

1:35 PM–2:15 PM

Introduction

Mechanistic Studies of Carcinogenic Activity of Hexavalent Chromium

Michelle J. Hooth, PhD, DABT, National Institute of Environmental Health Sciences, National Toxicology Program, Research Triangle Park, NC

2:15 PM–2:55 PM

TASH (Toxin-Associated Steatohepatitis) and Liver Cancer

Matthew Cave, MD, University of Louisville, Louisville, KY

2:55 PM–3:25 PM

3:30 PM–4:00 PM

Break

Air Pollution and the Cardiometabolic Syndrome

Sanjay Rajagopalan, MD, The Ohio State University, Columbus, OH

4:00 PM–4:45 PM

The Toxicity and Pathology of Dietary Herbals/ Botanicals and Supplements

June Dunnick, PhD, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC, and Abraham Nyska, DVM, DECVP, FIATP, Consultant in Toxicologic Pathology, Timrat, Israel

4:45 PM–5:00 PM

Wrap Up

5:30 PM–5:50 PM

Awards Ceremony Salon E (4th Floor)

5:50 PM–6:30 PM

Annual Business Meeting Salon E (4th Floor)

7:00 PM–9:00 PM

President's Reception Salon G (4th Floor)

Thursday, June 28

Thursday Morning

7:00 AM–8:00 AM

Continental Breakfast Ballroom Foyer (4th Floor)

Session 6

Salon E (4th Floor)

8:00 AM–12:00 Noon

Technology-Related Toxicologic Effects

Co-Chairs: John Vahle, DVM, PhD, DACVP, Eli Lilly and Company, Indianapolis, IN, and David Hutto, DVM, PhD, DACVP, Eisai, Inc., Hopkinton, MA

There are several potentially transformational technologic approaches to develop and deliver biotherapeutics and optimize agricultural and chemical products. These approaches include methods to directly or indirectly manipulate gene transcription and translation pathways and access cellular or tissue compartments generally difficult to reach. The methods may lead to toxicologic effects which require evaluation by toxicologic pathologists and inclusion in our risk assessment and value proposition for the regulatory agencies and public. The objective of this session will be to review several of these technology-based approaches, their potential toxicologic effects, and the approaches to risk assessment.

8:00 AM–8:10 AM

Introduction

8:10 AM–9:00 AM

Nanotechnology: Overview and Public Health Implications

David Warheit, PhD, DABT, ATS, DuPont Haskell Global Centers, Newark, DE

9:00 AM–9:40 AM

Nanotechnology: Toxicologic Pathology

Ann Hubbs, DVM, PhD, DACVP, National Institute for Occupational Safety, Centers for Disease Control and Prevention, Morgantown, WV

9:40 AM–10:00 AM

Student Presentation

Exposure to Helical Carbon Nanotubes Inhibits Phagocytosis of *Pseudomonas aeruginosa* and Alters the Pulmonary Immune Response

Brent Walling, DVM, DACVP, University of Illinois College of Veterinary Medicine, Urbana, IL

10:00 AM–10:30 AM

Break

10:30 AM–11:15 AM

Nonclinical Safety Evaluation of Immunoconjugates

Melissa Schutten, DVM, PhD, DACVP, Genentech, South San Francisco, CA

11:15 AM–12:00 Noon

RNA-Based Therapies: Toxicology and Current Clinical Status

Scott Barros, PhD, DABT, Alnylam Pharmaceuticals, Cambridge, MA

12:00 Noon

Meeting Adjourned



Boston Public Garden



Poster Presentations

Society of Toxicologic Pathology

Poster Times and Poster Setup

Poster Setup

Sunday, June 24..... 8:00 AM–3:00 PM
 Your poster must be set up by 3:00 PM on Sunday, June 24, 2012.

Poster Presentation Times

(Please plan to attend your posters during the following times)

Sunday, June 24 (Welcome Reception)..... 5:30 PM–7:00 PM (Optional)
 Monday, June 25..... 10:00 AM–10:30 AM and 3:05 PM–3:35 PM
 Tuesday, June 26..... 10:00 AM–10:25 AM
 Wednesday, June 27..... 10:10 AM–10:50 AM

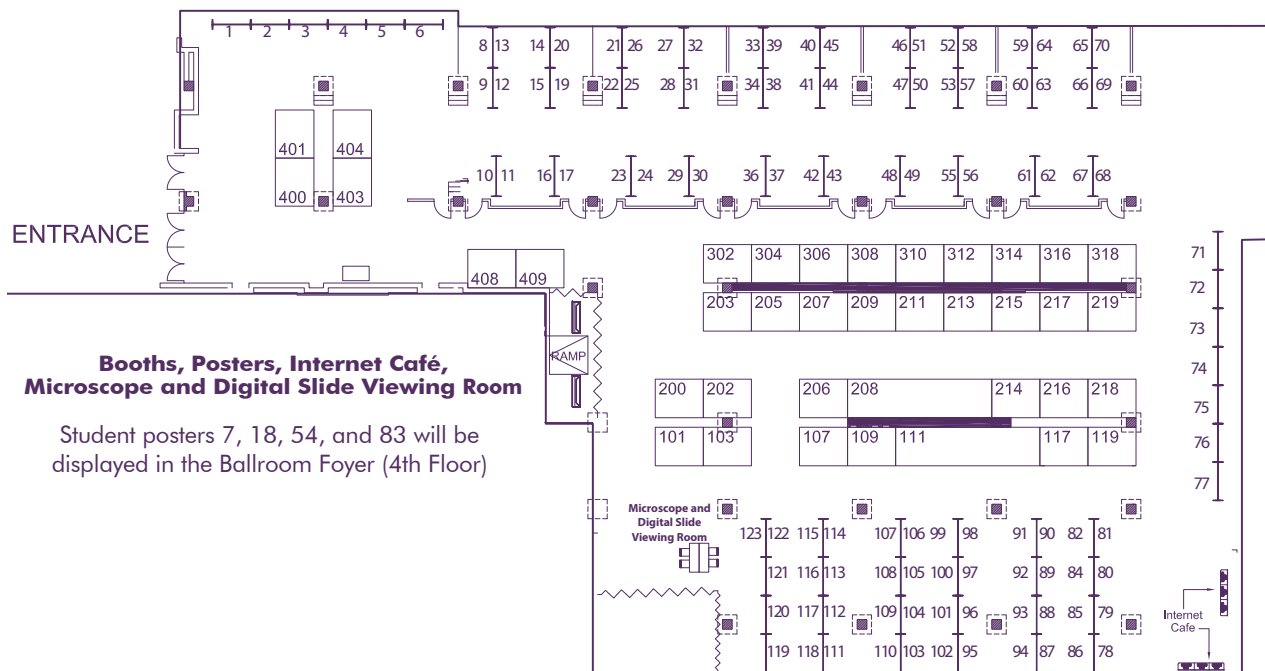
Poster Teardown

Wednesday, June 27..... 1:00 PM–2:00 PM
 If your poster is not removed before 2:00 PM on Wednesday, June 27, it will be removed and placed near the Registration Desk for pickup.

Young Investigator Judging Times

Monday, June 25..... 7:15 AM–8:00 AM, 10:00 AM–10:30 AM, and 3:05 PM–3:35 PM
 Tuesday, June 26..... 10:00 AM–10:25 AM

Back Bay Exhibit Hall (3rd Floor)





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Society of Toxicologic Pathology

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What Are the Benefits of STP Membership?

STP Journal

STP Full and Associate Members receive regular and supplemental issues of *Toxicologic Pathology*, the premier, peer-reviewed journal in the field of toxicologic pathology. The journal focuses on the multidisciplinary elements that constitute toxicologic pathology, including spontaneous and experimentally induced morphological and functional changes, environmental exposures, case reports, and risk assessment and investigative techniques. *Toxicologic Pathology* publishes original articles, symposia papers, brief communications, current topic reviews, current issues, and fast-track articles.

Scientific Collaboration

The Society provides opportunities for formal and informal exchange of information among colleagues in toxicologic pathology and related fields through its annual symposium, committees, working groups and other activities. The Scientific and Regulatory Policy Committee identifies common and emerging Toxicologic pathology issues within the drug, chemical, and device industry world-wide and takes a leadership role in addressing those issues to help better promote appropriate industry practices and regulatory policy.



Member Website and ToxPathNet

ToxPathNet, a professional network that features an enhanced member directory and online collaboration tools, was recently launched along with a redesigned STP website for members. Access to the member website at www.toxpath.org allows members to view Webinars, draft position papers, the latest *Scope* Newsletter, and information on current issues. Members can vote for office, volunteer to serve on a committee, update their membership information, and handle most Society business online.

Continuing Education, Regional Meetings, Webinars

One of the main goals of STP is to provide opportunities for members to keep current in a rapidly changing world. The annual meeting offers three full days of scientific sessions as well as optional premeeting continuing education courses on current topics and free career development sessions. STP regional meetings, sometimes held in collaborations with allied nonprofit educational organizations, are low-cost opportunities to gain high-quality continuing education on topics that emphasize local interests and expertise. STP members have access to live Webinars and also past presentations that are posted on the member website.

Scope Newsletter

Scope is a quarterly online newsletter that gives details of upcoming meetings and events, news of committee and working group activities, and member interviews.

Special Interest Groups (SIGs)

STP supports Special Interest Groups (SIGs) composed of STP members that specifically enhance networking and scientific exchanges relevant to the mission and strategic plan of the Society. The Environmental Toxicologic Pathology Special Interest Group, Clinical Pathology Special Interest Group (CPIG), Special Interest Group in Neuropathology (SIGN), and the Reproductive Pathology Special Interest Group were formed in 2011 and other groups will hold organizational meetings at the 2012 Annual Symposium. Information about each group is available under the Members menu on the STP website. There is no fee to join.

Student Resources

Student Members receive online access to *Toxicologic Pathology*. They also have access to the member section of the STP website and ToxPathNet. Students may participate in STP webinars and receive free registration for the annual symposium. They have access to career resources and student travel award information. Students also receive access to *PATHWAYS*, a joint newsletter of STP and ACVP for students of veterinary pathology. Students are encouraged to volunteer to participate on STP committees.

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Poster Presentation Index

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Poster Categories:

Young Investigator Candidates 1–28

General Pathology/Toxicologic Pathology 29–70

Oncology/Carcinogenesis 71–84

Systemic/Organ-Specific Toxicologic Pathology 85–104

New Technologies 105–123

§ Student Travel Award Winners

* Student Posters, 7, 18, 54, and 83 will be displayed in the Ballroom Foyer (4th Floor)

1 Toxicity Effect of Cisplatin-treatment on Mice Cerebellum Formation during Pregnancy

Sajjad Hejazi¹, ¹Department of Basic Sciences, Faculty of Veterinary Medicine, Tabriz branch, Islamic Azad University, Tabriz, Iran

2 Long-Term Effects of Intravascular Exposure to Gold Nanoparticles in Mice

Bonnie Brenseke¹, Javiera Bahamonde¹, Renee Prater^{1,2}, ¹Virginia Tech, Blacksburg, VA, United States, ²Edward Via College of Osteopathic Medicine, Blacksburg, VA, United States

§3 Effect of Altered Adenosine Signaling On Pulmonary Function in CD73- And A1-Adenosine Receptor-Knockout Mice Infected With Influenza A (H1N1)

Famke Aeffner¹, Alice A. Gaughan¹, Lisa M. Joseph¹, Ian C. Davis¹, ¹The Ohio State University; Department of Veterinary Biosciences, Columbus, OH, United States

4 Is There Any Relationship Between Blood Levels of Methemoglobin and Patient's Outcome in Aluminum Phosphide Poisoning?

Babak Mostafazadeh¹, ¹Shahid Beheshti University of Medical Sciences, Tehran, Iran, Islamic Republic of

§5 Use of the Proximity Ligation Assay to Detect Immune Complexes in Histologic Sections

Keiko Y. Petrosky¹, Kim Merriam², James B. Rottman², ¹Tufts Cummings School of Veterinary Medicine, North Grafton, MA, United States, ²Amgen, Inc., Cambridge, MA, United States

§6 Fetal Lung Development Is Impaired by Maternal Exposure to Particulate Air Pollution before and During Pregnancy

Natália Costa^{1,2}, Paulo Saldiva^{1,2}, Marisa Dolhnikoff^{1,2}, Mariana Veras^{1,2}, ¹University of São Paulo, School of Medicine, São Paulo, SP, Brazil, ²INAIRA, São Paulo, SP, Brazil

*§7 The Role of ALDH1B1 in Alcohol Metabolism and Colon Cancer

Surendra Singh¹, Ying Chen¹, Akiko Matsumoto¹, Jeffrey Peters^{1,2}, Vasilis Vasiliou¹, ¹University of Colorado Anschutz Medical Campus, Aurora, CO, United States, ²Pennsylvania State University, University Park, United States

8 Gestational and Postnatal Exposure to Air Pollution and Hypercholesterolemic diet Accelerate Atherosclerosis Progression

Mariana Veras^{1,3}, Marcela Cavalcanti², Natália Costa¹, Maria Peres^{1,3}, Dulcinéia Abdalla², Paulo Saldiva^{1,3}, ¹School of Medicine University of São Paulo, São Paulo, SP, Brazil, ²Faculty of Pharmaceutical Sciences, University of São Paulo, São Paulo, SP, Brazil, ³INAIRA, São Paulo, SP, Brazil



Poster Presentations

Boston

Society of Toxicologic Pathology

9 **In Vivo and In Vitro Evaluations of the Endocrine Disruption Potential of a Drinking Water Sample from the State of São Paulo, Brazil**

Marize de Lourdes Marzo Solano¹, Cassiana Carolina Montagner Raimundo², Igor Cardoso Pescara², Wilson Figueiredo Jardim², Daniela Dayrell França³, Gilson Alves Quinaglia³, João Francisco Lozano Luvizutto¹, Gisela de Aragão Umbuzeiro^{1,4}, João Lauro Viana de Camargo¹, ¹Botucatu Medical School, São Paulo State University, Botucatu, São Paulo, Brazil, ²Institute of Chemistry, University of Campinas, Campinas, São Paulo, Brazil, ³Environmental Toxicology, Genotoxicity and Microbiology Division—CETESB, São Paulo, São Paulo, Brazil, ⁴Faculty of Technology, University of Campinas, Limeira, São Paulo, Brazil

10 **The Novel Energy Restriction-Mimetic Agent OSU-CG5 Suppresses the Growth of Castration-Resistant Xenograft Prostate Tumors In Vivo Without Evidence of Systemic Toxicity**

Lisa Berman-Booty^{1,2}, Po-Chen Chu², Dasheng Wang², Samuel Kulp², Ching-Shih Chen², ¹The Ohio State University, Department of Veterinary Biosciences, Columbus, OH, United States, ²The Ohio State University, Division of Medicinal Chemistry, Columbus, OH, United States

11 **Histology Atlas of The Developing Mouse Central Nervous System With A Focus On The Spinal Cord**

Myra Fulp^{1,2}, James Morrison³, Julie Foley², Brad Bolon⁴, Susan Elmore², ¹College of Veterinary Medicine, North Carolina State University, Raleigh, NC, United States, ²Cellular and Molecular Pathology Branch, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ³Charles River Laboratories, Pathology Associates, Durham, NC, United States, ⁴Department of Veterinary Biosciences, Ohio State University, Columbus, OH, United States

12 **Hepatoblastoma in a Rat**

Asaf Berkowitz¹, Oliver Turner¹, ¹University Of Pennsylvania, Philadelphia, PA, United States, ²Novartis, East Hannover, NJ, United States

13 **Peptidylarginine Deiminases (PADs) Regulate Breast Cancer Microenvironment**

Sunish Mohanan¹, John L. McElwee¹, Paul R. Thompson², Scott A. Coonrod¹, ¹Baker Institute for Animal Health, Department of Biomedical Sciences, Cornell University, Ithaca, NY, United States, ²Department of Chemistry, The Scripps Research Institute, FL, United States

14 **Diuron Urothelium Toxicity**

Mitscheli da Rocha^{1,2}, Lora Arnold², Karen Pennington², Puttappa Dodmane², Masud Anwar², Maria Luiza de Oliveira¹, David Muirhead², João Lauro de Camargo¹, Samuel Cohen², ¹São Paulo State University—UNESP, Botucatu, São Paulo, Brazil, ²University of Nebraska Medical Center—UNMC, Omaha, NE, United States

15 **Development and Optimization of Quantitative Image Analysis for Hepatocyte BrdU Labeling Indices Using NIS-Elements Software**

Shemikah Colleton^{1,2}, Frank Simutis¹, M. Randall White¹, Cris Hochwender^{1,2}, ¹Bristol-Myers Squibb Company, Mt. Vernon, IN, United States, ²University of Evansville, Evansville, IN, United States

§16 **Identification of Novel Biomarkers of Rat Renal Carcinogenesis**

Kyoko Okabe¹, Shotaro Yamano¹, Min Wei¹, Minoru Kato¹, Masaki Fujioka¹, Xiaori Xie¹, Hideki Wanibuchi¹, ¹Osaka City University Graduate School of Medicine, Osaka, Japan

*§18 **Role of Galectin-3 (Gal-3) in Classical and Alternative Macrophage Activation during Acetaminophen (APAP)-Induced Hepatotoxicity**

Ana-Cristina Dragomir¹, Richard Sun¹, LeRoy Hall³, Jeffrey Laskin², Debra Laskin¹, ¹Rutgers University, Piscataway, NJ, United States, ²UMDNJ-RWJ Medical School, Piscataway, NJ, United States, ³Janssen Research & Development, LLC, Raritan, NJ, United States

§19 **Low Vitamin D Status Increases Severity of Dextran Sulfate Sodium (DSS)-Colitis in a Mouse Model at Risk for Colorectal Cancer**

Robert Johnson¹, James Fleet¹, Paul Snyder¹, ¹Purdue University, West Lafayette, IN, United States

§20 **Steroidogenic Enzyme Immunolocalization and Expression in Reproductive Tissues of the Female Cynomolgus Macaque**

Cynthia J. Willson¹, Hermina Borgerink¹, Fitriya Dewi¹, Janice Wagner¹, J. Koudy Williams¹, Charles E. Wood¹, J. Mark Cline¹, ¹Wake Forest School of Medicine, Winston-Salem, NC, United States

21 A Comparison of the Structural Brain Defects in Mouse Models of Dystroglycanopathy

Helen Booler¹, Charlotte Whitmore^{1,2}, Marta Fernandez Fuente¹, Susan Brown¹, ¹Royal Veterinary College, University of London, London, United Kingdom, ²Department of Medicine, Imperial College, University of London, London, United Kingdom

§22 Molecular Evaluation of Hepatocellular Tumors from F344/N Rats and B6C3F1 Mice Chronically Exposed to N,N-Dimethyl-p-toluidine

Sachin Bhusari¹, Arun Pandiri^{1,3}, HH Hong¹, T-V Ton¹, June Dunnick², David Malarkey¹, Robert Sills¹, Mark Hoenerhoff¹, ¹Cellular and Molecular Pathology Branch, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ²Toxicology Branch, National Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ³Experimental Pathology Laboratories, Research Triangle Park, NC, United States

23 Assessing the Long Term Expression of LARGE As a Potential Therapy in a Mouse Model of LGMD2I

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24 Creation of Transgenic Mice with GJA1 Inducible Gene Expression System

Lucas Chaible¹, Marcus Corat², Daniel Sanches¹, Gregory Mennecier¹, Bruno Cogliati¹, Maria Dagli¹, ¹University of São Paulo, São Paulo, Brazil, ²University of Campinas, Campinas, Brazil

25 Study of Differentiation Process in Osteosarcoma Cell Line

Daniel Soares Sanches¹, Lucas Martins Chaible¹, Gregory Mennecier¹, Mácia Kazumi Nagamine¹, Andreia Oliveira Latorre¹, Andressa Gianotti Campos¹, Carolina Gonçalves Pires², Maria Lucia Zaidan Dagli¹, ¹University of São Paulo, São Paulo, SP, Brazil, ²Centro de Anatomia Patológica Veterinária, São Paulo, SP, Brazil

26 Activation of NF- κ B and Nrf2 Signaling during Neuroinflammation

Christopher Gibson¹, Jason Richardson², Lauren Aleksunes¹, ¹Rutgers University, Piscataway, NJ, United States, ²University of Medicine and Dentistry of New Jersey, Piscataway, NJ, United States

28 Spontaneous Long Bone Fractures in Seven Laboratory Gerbils (*Meriones unguiculatus*)

Elizabeth Buza¹, Angela Brice¹, JanLee Jensen¹, Julie Engiles¹, ¹School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, United States

27 Effects of Cadmium on Receptor Tyrosine Kinase (RTK) Phosphorylation, MAPK Activation, and Estrogen Receptor (ER) α and β Binding *In Vitro*

Xiaohua Gao¹, Linda Yu¹, Alicia Moore¹, Grace Kissling¹, Michael Waalkes¹, Darlene Dixon¹, ¹National Institute of Environmental Health Sciences, NIH, DHHS, Research Triangle Park, NC, United States

29 Rhabdomyosarcoma in a Common Marmoset (*Callithrix jacchus*)

Tomoaki Tochitani¹, Izumi Matsumoto¹, Kohei Hoshino¹, Kaoru Toyosawa¹, Mami Kouchi¹, Takatoshi Koujitani¹, Juki Kimura¹, Hitoshi Funabashi¹, ¹Dainippon Sumitomo Pharma Co., Ltd, Osaka, Japan

30 Histologic Features of Prepubertal and Pubertal Ovarian Development in Sprague-Dawley Rats

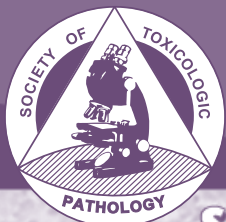
Catherine Picut¹, Amera Remick¹, ¹WIL Research, Hillsborough, NC, United States

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Sai Takafumi^{1,2}, Uchida Kazuyuki¹, Nakayama Hiroyuki¹, ¹University of Tokyo, Tokyo, Japan, ²Toray Industries, Inc., Kanagawa, Japan

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50 Inhibition of Stearoyl-Coenzyme A Desaturase Promotes Systemic Granulomatous Inflammation in Adipose Tissue

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52 Evaluation of 90-Day Oral Rat Toxicity Studies of the Food Additive, Gum Ghatti

Jeffrey Davis¹, Robert Maronpot², Glenda Moser¹, Susan Borghoff¹, Dipak Giri¹, Shim-mo Hayashi³, ¹Integrated Laboratory Systems, Inc., Durham, NC, United States, ²Maronpot Consulting, LLC, Raleigh, NC, United States, ³San-Ei Gen F.F.I., Inc, Hirano-machi, Chuo-ku, Osaka, Japan

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Patricia Mascarelli¹, Nandhakumar Balakrishnan², Michael Leach³, Cynthia Rohde³, Catherine Kelly⁴, Edward Breitschwerdt², Ricardo Maggi¹, ¹Galaxy Diagnostics Inc., Research Triangle Park, NC, United States, ²North Carolina State University, Raleigh, NC, United States, ³Pfizer, Andover, MA, United States, ⁴Huntingdon Life Sciences, East Millstone, NJ, United States

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57 Ingestion of Grapes or Raisins Doesn't Develop Acute Renal Failure in Beagle Dogs

Juha Song¹, Tamer Said¹, Seo-Na Chang¹, Dong-Su Kim¹, Jae-Hak Park¹, ¹Seoul National University, Seoul, Korea, Republic of Korea



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Luciana Cunha¹, Fernando Pípole¹, Luciana Carvalho², João Lago³, Silvana Górnica¹, ¹University of São Paulo, São Paulo, SP, Brazil, ²Institute of Botany, São Paulo, SP, Brazil, ³Federal University of São Paulo, Diadema, SP, Brazil

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¹BASF SE, Ludwigshafen, Germany
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*Susanne Rittinghausen*¹, Johanna Teloh^{1,2}, Dirk Schaudien¹, Roman Halter¹, ¹Fraunhofer Institute for Toxicology and Experimental Medicine, Hannover, Germany, ²University of Duisburg/Essen, Essen, Germany

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Atsushi Shiga¹, Yasufumi Ota¹, Yoshihide Ueda¹, Shigeaki Takami¹, Kazushige Hasegawa¹, Masayo Hosoi¹, Rumiko Miyajima¹, Isao Narama¹, ¹Biosafety Research Center, Iwata, Shizuoka, Japan

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MW Trimble¹, B. Li², D. Henderson², S. Stepaniants², M.L. Parrish², A. Sharma³, J. Brault¹, G.A. Boorman⁴, ¹Covance Laboratories Inc., Chandler, AZ, United States, ²Covance Genomic Laboratory, Seattle, WA, United States, ³Covance Laboratories Inc., Madison, WI, United States, ⁴Covance Laboratories Inc., Chantilly, VA, United States

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Marie-France Perron Lepage¹, Céline Thuilliez¹, Christian Clément¹, Catherine Botteron¹, ¹Ricerca Biosciences SAS, Lyon, France

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102 Ocular Histology of the Pig, Dog, Rabbit, and Monkey: A Comparative Overview

James Cartwright¹, ¹Huntingdon Life Sciences, Huntingdon, Cambridgeshire, United Kingdom

103 Evaluation of Short-Term Toxicity of Melamine in Combination with Cyanuric Acid in Adult Rats and Searching for Novel Kidney Biomarkers

Young-Il Park¹, Jong-Hun Seo¹, Sang-Hee Jeong², Young-Hwa Jean¹, Jeong-Woo Kang¹, Hyo-Shuk Shin¹, Seong-Wan Son¹, Hwan-Goo Kang¹, ¹Toxicology and Residue Chemistry Division, Animal, Plant and Fisheries Quarantine and Inspection Agency, Anyang-si, Gyeonggi-do, Republic of Korea, ²GLP Research Center, College of Natural Sciences, Hoseo University, Asan-si, Chungnam, Republic of Korea

104 Evaluation of Short-Term Toxicity of Melamine and its Mixture with Cyanuric Acid in F344 Neonatal Rats and Searching for Novel Kidney Biomarkers

Young-Il Park¹, Jong-Hun Seo¹, Sang-Hee Jeong², Young-Hwa Jean¹, Sung-Won Park¹, Hyo-Shuk Shin¹, Seong-Wan Son¹, Hwan-Goo Kang¹, ¹Toxicology & Residue Chemistry Division, Animal, Plant and Fisheries Quarantine and Inspection Agency, Anyang-si, Gyeonggi-di, Korea, ²GLP Research Center, College of Natural Sciences, Hoseo University, Asan-si, Chungnam, Korea

105 Universal Principles and Methods for Routine microRNA in situ Hybridization.

Usha Singh¹, Igor Mikaelian¹, Alex Wolujczyk¹, Mudher Albassam¹, Marielle Odin¹, Rosario Garrido¹, ¹Hoffmann-La Roche Inc., Nutley, NJ, United States

106 Workflow for Establishing Historical Control Data in the RITA Database

Rupert Kellner¹, Susanne Rittinghausen¹, ¹Fraunhofer ITEM, Hannover, Germany

107 Biodistribution and Immunogenicity Studies in the Preclinical Strategy for the Evaluation of Safety Profile of Gene Therapy Products

Anna Lanzoni¹, Chiara Piubelli¹, Elena Vicentini¹, Federica Crivellente¹, Ivo Faustini¹, Rossella Defazio¹, ¹Aptuit s.r.l., Verona, Italy

108 The Use of Ultrasonic Decalcification to Enhance Histological Processing of Nasal Turbinates in Inhalation Toxicity Studies

Mark Swann¹, Colin Hill¹, Jo Fairweather¹, Yasanthi Mowat¹, Andrew Pilling^{1,2}, ¹Huntingdon Life Sciences, Cambs, United Kingdom, ²ToxPath Consultancy Ltd, Beds, United Kingdom



Poster Presentations

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109 Nonspecific Binding of Four Null Antibodies in a Limited Panel of Normal Human Tissue: Implications for Tissue Cross Reactivity Studies.

Carol W. Johnson¹, Carolyn M. Moyer¹, James F. Reindel¹, Alexander H. Nguyen¹, Michelle J. Horner¹, Qing Chen¹, Jeffery W. Lawrence¹, Curtis Chan², Collin Richardson², Gary Baskin², Kenneth W. Walker¹, ¹Amgen, Inc, Thousand Oaks, CA, United States, ²Charles River Laboratories, Reno, NV, United States

110 Quantitative Digital Pathology in Preclinical Safety Studies

Johannes Zimmermann¹, ¹Definiens, Munich, Germany

111 Metawise: Extraction and Normalisation of Toxicologic Pathology Terminology from the INHAND Project For Enhanced Search

Jane Reed¹, Paul Bradley¹, Lucy Sheppard¹, Stephanie Berry¹, ¹Instem Scientific, Cambridge, United Kingdom

112 Automated Digital Morphometry of Thyroid Gland Follicles Using Standard H&E-Stained Tissue Sections and Compared to Manual Morphometry

Thomas Rosol^{1,2}, Joshiah Pelot¹, Mark Plaskow^{1,2}, ¹Ohio State University, Columbus, OH, United States, ²American Health Technologies, Columbus, OH, United States

113 Development of Quantitative RT-PCR Assays from Formalin-Fixed Paraffin Embedded Tissues for the Retrospective Identification of mRNA Biomarkers with Histopathologic Correlates

Brigid Troan¹, Tim Maynor¹, Suzanne Phillips², Glenda Moser¹, Michael Waters¹, Leslie Recio¹, ¹Integrated Laboratory Systems, Research Triangle Park, NC, United States, ²GX iSolutions, Raleigh, NC, United States

114 CellMap: Tumor Cell Subpopulation Analysis in Immunohistochemistry Stained Tumor Tissue

Steven Potts¹, G. David Young¹, Joseph Krueger¹, Holger Lange¹, Mohamed Salama², ¹Flagship Biosciences, Westminster, CO, United States, ²University of Utah, Salt Lake City, UT, United States

115 Stereology and Computer-Based Image Analysis Improves Therapeutic Cutoff Points in Grading Reticulin in Myeloproliferative Disease

Steven Potts¹, Joseph Krueger¹, Erik Hegendorn¹, Jeff Kutol², Trevor Johnson¹, G. David Young¹, Sherrie Perkins³, Josef Prchal³, Mohamed Salama³, ¹Flagship Biosciences, Westminster, CO, United States, ²Infinity Pharmaceuticals, Inc, Cambridge, MA, United States, ³University of Utah, Salt Lake City, UT, United States

116 The Diagnostic Accuracy of Digital Histopathology

David Malarkey¹, Susan Elmore¹, Gabrielle Willson², E. Terences Adams², Jerry F. Hardisty², Greg R. Olson³, William M. Witt³, Rodney A. Miller², ¹Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ²Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ³Toxicologic Pathology Associates, Jefferson, AR, United States

117 Low Incidence of Intraindividual and Consensus Discrepant Diagnoses between Digital Images and Light Microscopy in a Pathology Working Group (PWG) Reviewing Selected Lesions from p53 (+/-) haploinsufficient Mice

Gabrielle Willson¹, Jerry F. Hardisty¹, Rodney A. Miller¹, E. Terences Adams¹, Greg R. Olson³, William M. Witt³, David Malarkey², ¹Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ²Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ³Toxicologic Pathology Associates, Jefferson, AR, United States

118 Effect of Intrapathologist Variability on Consensus of Digital and Light Microscopic Diagnoses of Treatment related Intestinal Hyperplasias and Neoplasms and Other Lesions in Rats and Mice

Gabrielle Willson¹, Rodney A. Miller¹, E. Terences Adams¹, Jerry F. Hardisty¹, Greg R. Olson³, William M. Witt³, David Malarkey², ¹Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ²Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ³Toxicologic Pathology Associates, Research Triangle Park, NC, United States

119 An Application of Digital Image Microscopy in a Focused Review of Brain and Spinal Cord

Gabrielle Willson¹, Rodney A. Miller¹, E. Terences Adams¹, Jerry F. Hardisty¹, William M. Witt³, David Malarkey², ¹Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ²Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ³Toxicologic Pathology Associates, Jefferson, AR, United States

120 Comparison of Glass Slide and Digital Image of a PWG Reviewing Lymphohematopoietic Neoplasms and Other Lesions from p53 +/- Haploinsufficient Mice

Rodney A. Miller¹, [Gabrielle Willson](#)¹, E. Terences Adams¹, Jerry F. Hardisty¹, Greg R. Olson³, William M. Witt³, David Malarkey², ¹Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ²Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ³Toxicologic Pathology Associates, Jefferson, AR, United States

121 Pathologist Survey Results and Comparison of Digital Image and Glass Slide Microscopy of a Rat and Mouse PWG

[Gabrielle Willson](#)¹, Rodney A. Miller¹, E. Terences Adams¹, David Malarkey², ¹Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ²Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States

122 Digital Image Microscopy Review of Chronic Study PWGs by Pathologists Naïve to the Original Glass Slide Review

Rodney A. Miller¹, [Gabrielle Willson](#)¹, E. Terences Adams¹, Jerry F. Hardisty¹, Greg R. Olson³, William M. Witt³, David Malarkey², ¹Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ²Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States, ³Toxicologic Pathology Associates, Research Triangle Park, NC, United States

123 Evaluation of Subtle Lesions in Common Target Organs From Prior Pathology Working Groups (PWGs): Comparison of Digital and Glass Images and Survey Results

E. Terences Adams¹, David Malarkey², Rodney A. Miller¹, [Gabrielle Willson](#)¹, ¹Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, ²Cellular and Molecular Pathology Branch, National Institute of Environmental Health Sciences, Research Triangle Park, NC, United States



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Monday, June 25
7:00 AM–8:00 AM

Breakfast Hosted by Abbott
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Monday, June 25
12:00 Noon–1:30 PM

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3:05 PM–3:35 PM

Break Hosted by Abbott
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Monday, June 25
6:30 PM–9:30 PM

Reception Sponsored by EPL
Salon G (4th Floor)

EXHIBITOR/SPONSOR HOSTED SESSIONS

Monday, June 25
2:15 PM– 3:15 PM

Definiens
Vineyard Room

Automated Image Analysis in Preclinical Safety Studies: Increasing Productivity and Delivering Significant Return on Investment

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The talk will discuss a number of sample applications and use cases.

Tuesday, June 26
10:30 AM–11:30 AM

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Provincetown

Increasing Accuracy and Reproducibility during Peer Review Under GLP

Featuring Guest Speaker: Laura Barisoni, MD

Listen to the finding of a prominent new study during this special presentation. Learn about novel quantitative method and hear about new study results comparing accuracy of glass and eSlide reads. Understand advantages of having a permanent record with retrievable data.

Microscope and Digital Slide Viewing Room

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Please bring any slides you would like to discuss with colleagues.

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Center for Genomic Pathology

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Website: www.ctrgenpath.net/

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Categories: Education, Genomics Research/Testing, Pathology, Transgenic Models

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Categories: Biomarkers, Clinical Pathology, Immunohistochemistry Research/Supplies, Preclinical Research/Testing

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Categories: Career Advisors, Histopathology, Pathology

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Categories: Cancer Biology/Carcinogenicity, Environmental Health, Inhalation Research/Testing, Pathology



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Society of Toxicologic Pathology

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Categories: Cancer Biology/Carcinogenicity, Education, Environmental Health, Pathology

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Society of Toxicologic Pathology

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The Society of Toxicologic Pathology (STP) is a nonprofit association of pathologists and other scientists whose principal aim is the advancement of pathology as it pertains to changes elicited by pharmacological, chemical and environmental agents, and factors that modify these responses.

The Society's Vision: Be an international leader for improvement of human and animal health using an interdisciplinary scientific approach based in pathology and toxicology. This vision will be accomplished through four primary goals: recruitment, advocacy, globalization and collaboration.

Categories: Education, Organizations, Pathology

SNBL USA, Ltd.

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Categories: CRO—Contract Research Organizations, Pathology, Preclinical Research/Testing, Reproductive Toxicology

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Categories: Antibody Products, Biomarkers, Histopathology, Immunohistochemistry Research/Supplies



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Society of Toxicologic Pathology

Toxikon Corp

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Print Profile - Toxikon is an ISO/IEC 17025-accredited CRO registered with the FDA for drug, biologic, and medical device testing. Toxikon's services include acute, subchronic, and chronic toxicity, reproductive toxicity, genetic toxicology, carcinogenicity, PK, TK, bioavailability, ADME, chemical characterization, impurities analysis and synthesis, bioanalysis, and microbiology. Additionally, full IND/NDA enabling studies are performed with a multidisciplinary approach to program management. www.toxikon.com

Categories: *In Vitro* Research/Testing, *In Vivo* Research/Testing, Pathology, Preclinical Research/Testing

Vet Path Services, Inc.

408

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Categories: Archiving/GLP Compliant Archiving, Histology, Histopathology, Pathology

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Portland, Oregon is host for the Society of Toxicologic Pathology 32nd Annual Symposium, June 16–20, 2013. Stop by the booth for hotel and visitor information so you can plan your trip. Enter a raffle to win a bottle of Oregon wine and have a complimentary luggage tag made with your business card.

Xybion Medical Systems

218

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Categories: Computing Systems, Data Management, Data Reporting Systems, Statistical Analysis Services

31st Annual Symposium

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