In February 2012, we delivered a short course to address critical skills shortages in the field of wildlife health and comparative pathology as a means to contribute to the security of Australia’s rich biodiversity, human, livestock, and environmental health.

This year, based on the written and verbal comments provided from the 2008 course, we focused on conservation, wildlife management and building practical skills through the addition of a series of hands-on workshops. Workshops included:

- wildlife disease risk analysis;
- avian, terrestrial and marine mammal necropsy;
- invertebrate pathology;
- comparative histopathology; and
- basic wildlife laboratory skills.

These workshops complement the 4 day systematic review of wildlife disease by providing participants with practical skills and field-adaptable disease investigation techniques. It is our belief that building a trained and collaborative workforce ultimately improves our collective ability to detect and respond to wildlife health threats.

The aim of the course was to provide comprehensive and systematic training in the investigation of wildlife disease. We also aimed to foster collaboration by creating national and international linkages across all sectors involved with wildlife health: universities, zoos, agriculture and environment departments, vertebrate pest controllers, wildlife managers, and wildlife rehabilitators.

Our aims in hosting this Wildlife Pathology Short Course were to build national and regional capacity and to:
- Ignite enthusiasm in students to study wildlife health, and diagnostic sciences,
- Enhance the skills and experience of veterinary pathologists employed in agriculture departments, universities and commercial pathology laboratories,
- Establish communication links with overseas wildlife health centres,
- Illustrate the value of the Australian Registry of Wildlife Health as a resource centre,
- Allow wildlife veterinarians and pathologists from regional developing countries to enroll in the program at little or no-cost, and;
- Build the foundations of a graduate level curriculum in comparative pathology.
The Wildlife Conservation Society describes how wild animal populations may present the first indications of disease, effects of toxins, or changes in climate due to their sensitivity to seemingly minor disturbances in the environment. By studying the health status of wild populations, conservationists and health authorities can anticipate and react to threats to the health of wildlife and humans alike.

Through collaboration and funding from the CL Davis Foundation in Veterinary and Comparative Pathology we were able to attract six internationally renowned wildlife pathologists from North America and New Zealand who were joined by 13 esteemed Australian speakers to represent the health and disease status of native fauna. The mixture of local and overseas speakers provided an excellent balance of endemic and exotic disease education.

The course attracted 141 participants from across Australia, New Zealand, USA, Canada, Saudi Arabia, Italy, Vietnam, India and the Democratic Republic of Congo. There were 76 workshop participants with some people attending 2, or even 3, individual workshops. Three scholarships were provided to support the attendance of overseas wildlife veterinarians. Seven scholarships were also provided to Australian graduate and undergraduate students. Participants reflected the multi-disciplinary nature of wildlife health, with extensive cross-sector and cross-jurisdictional representation.

We received 70 workshop evaluation forms and 47 participants completed a short course evaluation form, from which we were able to collate the data contained within this report. Workshop participants indicated that they attended specific workshops to either learn new skills or brush up on techniques with 95% of participants indicating that the workshops either met or exceeded expectation. Course participants stated that they had expected the course to provide a comprehensive, systematic, scientifically accurate and relevant overview of the diseases of native fauna, to enhance their diagnostic and disease investigation skills, and to provide an opportunity to network with their peers. 93.3% of respondents said that the course met or exceeded their expectations.

The course was made possible through by financial support of the Cybec Foundation, University of Sydney, REM Systems Pty Ltd, Australian Government Department of Agriculture, Fisheries and Forestry, SeaWorld Adventure Parks USA, the Wildlife Disease Association - Australasia, CSIRO, Australian Biosecurity Intelligence Network, and the Taronga Conservation Society Australia.

We would also like to acknowledge the consultative group that provided guidance to assemble the course content and attract the highest quality speakers: Drs Scott Fitzgerald, Tony Ross and Bruce Williams (C.L. Davis D.V.M. Foundation), Professors David Phalen and Mark Krockenberger (University of Sydney), Dr. William Wong (Australian Department of Agriculture, Fisheries and Forestry, and Dr David Middleton (Cybec Foundation).

We extend our thanks to the workshop coordinators: Paul Thompson and Dr Cheryl Sangster (Taronga Conservation Society Australia), Dr Richard Jakob-Hoff (Auckland Zoo), Prof Emeritus Ian Barker (Canadian Cooperative Wildlife Health Centre), Dr Leellen Solter (University of Illinois) and Dr Judy St Leger (SeaWorld USA).

One of the strengths of the course are the many excellent workshops, including one on the necropsy of marine mammals, led by Foundation faculty member Judy St. Leger (center).
39th Annual Gross Morbid Anatomy of Animals

Presented by the Charles Louis Davis, DVM Foundation

Come join us at one of the most renowned pathology courses in the world - all species, all systems, and international experts presenting 36 hours of great CME. Each year, this in-depth course draws over 120 pathologists, lab animal practitioners, veterinary clinicians, and students from around the world. Don’t miss out in 2012!

For more information, visit:
http://www.cldavis.org/upcoming.html

*This course has been submitted (but not yet approved) for 36 hours of continuing education credit 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. Call James Bunn, DVM at 301-097-2435 for further information*
2012 Descriptive Veterinary Pathology Course

LSU School of Veterinary Medicine - 11-15 June 2012

Lectures include:

- Descriptive Techniques in:
  - Gross Pathology
  - Microscopic Pathology
  - Cytology
  - Electron Microscopy
  - Immunohistochemistry
- Review of Clinical Pathology
- Gross-Microscopic Correlations
- 6 Practical Examinations
  - Gross Exams
  - Histo Exams
  - 4 exams are faculty-graded for extra feedback

For more information, including tuition, venue, and hotel information, please visit http://www.clldavis.org/courses/upcoming.html

Program Director:
Dr. Bruce Williams, DVM, DACVP
Joint Pathology Center
301-467-4024
Email: Williams@clldavis.org

This course has been submitted (but not yet approved) for 36 hours of continuing education credit 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. Call Dr. James Britt, 501-907-2135, for further information.
2012 CURRENT LAB ANIMAL SCIENCE SEMINAR

2012 PATHOLOGY OF LAB ANIMALS COURSE

Virginia Tech College of Veterinary Medicine - 11-17 August 2012

"The Guide", Chapter by Chapter • Pathology of Laboratory Fish • Emerging Rodent Diseases • Pathology of Non-Traditional Lab Animal Species • Preparing for the ACLAM Board • Pathology of the “Irrelevant Rodents” • BMBL • What to Do (and NOT Do) in BSL 3 and 4 • Intro to AALAC, USDA, and PHS Policies • Pathology of all Major Lab Species • AND MUCH MORE!

Tuition: CLASS only $350
POLA only - $475
Combined CLASS/POLA - $700

This course has been submitted (but not yet approved) for 38 hours of continuing education credit 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. Call Dr. James Brit, 501-387-2435, for further information.
Virginia Tech’s College of Veterinary Medicine
4th Annual Clinical Pathology Workshop for Pathology Residents
August 17-19, 2012

Featured Speakers:
Dr. Katie Boes, DVM, MS, DACVP (Clin Path)
Dr. Sarah Hammond, DVM
Dr. Tanya LeRoith, DVM, PhD, DACVP (Anat)
Dr. Nicole Weinstein, DVM, DACVP (Clin Path)
Dr. Kurt Zimmerman, DVM, PhD, DACVP (A&CP)

Each day of the 2.5 day workshop will focus on a variety of topics divided into didactic and interactive lectures along with practice cases. Total contact time will be approximately 20 approved CE credit hrs. Syllabus and notes provided online.

This course is sponsored by the VA-MD Regional College of Veterinary Medicine, the Virginia Tech Student Chapter of American College of Veterinary Pathologists, and the Charles Louis Davis DVM Foundation.

For more info about this course, please visit: http://www.vetmed.vt.edu/org/dbsp/resprogs/cpworkshop.asp
From the Latin American Division...

DIAGNOSTIC EXERCISE for May

Contributor: Marcia Elisa Pereira Bacares, DVM, MSc, DACVP, Histo-Scientific Research Laboratories, Mount Jackson, VA

Clinical History: 20-week-old, female Harlan Sprague Dawley rat, control animal from a subchronic (13-week) oral toxicity study (daily dosed).

Gross Findings: “White spots” on the orbital lacrimal gland

What is your morphologic diagnosis?
C.L. DAVIS EUROPEAN DIVISION
PATHOLOGY
SYMPOSIUM
Leon, Spain
3-5 Sept 2012

EMERGING DISEASES IN THE THIRD MILLENIUM
SMALL-ANIMAL INFECTIOUS DISEASE – RESPIRATORY PATHOLOGY

For more info, visit: http://www.cl.davis.courses/upcoming.html
or contact Course Director, Sean Callanan, at sean.callanan@ucd.ie
More News from the Foundation’s Latin American Division

Fabio Del Piero, a founder and active member of the Latin American Division, and Senior Vice President of the Foundation, recently accepted a tenured full professor position in Pathobiological Sciences at the School of Veterinary Medicine of Louisiana State University. Professor Del Piero graduated from University of Milano, Italy, and obtained his ACVP specialty certification while at Cornell University where he worked in pathology and virology. He obtained his PhD in the pathogenesis of zoonotic arboviruses in mammals and birds. Research activity includes the study of the pathogenesis of infectious diseases and comparative pathology. He is an avid diagnostician with no species boundaries, and internationally renowned for his expertise in equine and farm animal pathology. He received the Ljudevít Jurak Award for his studies and teaching in the field of comparative pathology. He is a member of the board of directors and Vice-president Senior of the C.L. Davis foundation, member of The British Veterinary Research Club, served in several ACVP committees and the editorial board, and he was the program chair of the 2009 ACVP meeting.

Once more, the Universidad Nacional de Colombia, will be hosting the 4th edition of the successful combined meeting in Veterinary Pathology (Curso Seminario Internacional de Patología Veterinaria) and the Ictiopathology (Curso Seminario Internacional de Ictiopatología), which this year will combined with the first edition of the International Toxicological Pathology meeting. All 3 meetings will be held in the campus of Bogota, from August 21st -25th, 2012. Ingrid Pardo (DMV, MSc, DACVP), founder and former president of the LCPG is part of the organizing committee.

Several renowned speakers from the US were invited for the 1st edition of the toxicological pathology meeting including Dr. Douglas Wolf (US EPA), Dr. Ingrid Pardo (Pfizer), Dr. Ricardo Ochoa (Pre-Clinical Safety Consultants), Dr. Robert Sills (NIH/NIEHS), and Dr. Dianne Creasy (Huntingdon Life Sciences). Other international invited celebrities are Dr. Klaus Weber from Harlan Laboratories, Switzerland, and Dr. Maria Dagli from the Universidade de Sao Paulo, Brazil.

Invited speakers for the Veterinary Pathology sessions are Dr. Margaret (Peg) Miller (Purdue University), Dr. David Vail (University of Wisconsin), and Dr. Carolina Troncoso (Universidad Santo Tomas, Chile). While speakers for the Ictiopathology sessions are Dr. Carlos Igueri (Universidad Nacional de Colombia), Dr. Hugh Ferguson (St George University, Grenada), Dr. Ignacio De Blas (Universidad de Zaragoza, Spain), Dr. John Lumsden (Guelph University, Canada), and Dr. Noel Verjan (Universidad de Tolima, Colombia).
2012 Gross Pathology Course of the CLDavis Foundation *

September
24 to 28
Tandil, Argentina

Speakers
Dr. Srinivas Rao
Dr. Fabio del Piero
Dr. Francisco Uzal

Organized by
Facultad de Cs. Veterinarias de la UNCPBA

Sponsored by
CLDavis Foundation

Over five days, and utilizing thousands of excellent gross images, faculty will focus on the identification of common diseases of domestic and exotic species from its gross appearance, salient diagnostic features of each, and the formulation of appropriate morphologic and differential diagnosis.

This course is appropriate for practicing veterinary pathologists, pathology residents, diagnosticians working with animals and advanced veterinary students. Practitioners and field veterinarians are also welcomed.

*It gives credits for the doctorate in Animal Science UNCPBA-FCV, Tandil, Argentina

For registrations and more information
cursopat@vet.unicen.edu.ar / www.vet.unicen.edu.ar
Industrial Toxicology and Pathology Short Course

July 23-27, 2012

Session One: July 23-25, 2012
Toxicology and Pathology in Drug Discovery and Development
This session is designed for toxicologists, pathologists, and other professionals working in the pharmaceutical, chemical, and consumer products fields with a primary emphasis on drug discovery and development. The session is also applicable to professionals responsible for design and evaluation, safety assessment, and regulatory issues associated with product development in industry, government, and contract laboratories. The objective of the session is to address current global issues in the rapidly advancing fields of toxicology and pathology; to enhance attendees’ skills in interpreting animal safety studies; to facilitate interactions with federal regulatory agencies; and to provide networking opportunities.

Session Two: July 25-27, 2012
Contemporary Concepts in Target Organ Toxicologic Pathology: Renal and Respiratory Systems
This session is designed for pathologists, toxicologists, and other professionals working in toxicology-related fields such as the pharmaceutical, chemical, consumer, and environmental areas. The objective of the session is to provide an understanding of the basis and manifestations of target organ responses to xenobiotic injury as well as cutting edge concepts in the field.

Location
The course will be held at the Hilton Garden Inn, Champaign, Ill. Rooms have been reserved at a group rate of $109 per night through Monday, June 25, 2012; this price does not include taxes. Reservations made after this date will be filled on a space availability basis. When contacting the hotel to make your reservation, refer to the group code “txpath.”

Hilton Garden Inn
1501 S. Neil St.
Champaign, Ill. 61820
217 352 9970

Course Registration
The course registration fee covers the cost of the course notebook, CD of course notebook, contents, breakfast, breaks, lunch, and dinner. To assure a place in the course, early registration is encouraged. The early registration deadline is Sunday, April 15, 2012.

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The course registration fee covers the cost of the course notebook, CD of course notebook, contents, breakfast, breaks, lunch, and dinner. To assure a place in the course, early registration is encouraged. The early registration deadline is Sunday, April 15, 2012.

Online registration is available at vetmed.illinois.edu/ope/itp

Poster Presentations
Speakers and course registrants are encouraged to present their research accomplishments at this meeting. You may sign up to present a poster using the online form. The deadline for signing up to present a poster is Sunday, July 8, 2012.
The Gross Morbid Anatomy of Diseases of Animals
C.L. Davis DVM Foundation

DATE: 24-28 September 2012
DURATION: 5 day(s)

PROGRAM DIRECTOR/S: Monteavaro Cristina, Fresneda Karina, Riccio María Belén

DESCRIPTION: The Gross course, now in its 39th year in the US and presented for the first time in Argentina, covers the major diseases of domestic and exotic species. Over five days, and utilizing thousands of excellent gross images, faculty will focus on the identification of common diseases of these species from its gross appearance, salient diagnostic features of each, and the formation of appropriate morphologic and differential diagnosis. This course is appropriate for practicing veterinary pathologists, pathology residents, and diagnosticians working with animals. Practitioners and field veterinarians are also welcomed.

CONTINUING EDUCATION CREDITS/DOCTORATE CREDITS:
Module I: 20 hs
Module II: 26 hs
Complete course: 46 hs

TUITION FEES:
Graduates from Facultad de Ciencias Veterinarias, Tandil:
One module: AR$600
Complete course: AR$900

Graduates from other Universities:
One module: AR$800
Complete course: AR$1200

Teachers of Facultad de Ciencias Veterinarias, Tandil:
One module: AR$500
Complete course: AR$800

Teachers from other Universities:
One module: AR$700
Complete course: AR$1100

Advanced students from Facultad de Ciencias Veterinarias Tandil (3º - 4º and 5º):
One module: AR$200
Complete course: AR$400

Advanced students others universities:
One module: AR$300
Complete course: AR$500

Members of Asociación Argentina de Patología Veterinaria:
One module: AR$600
Complete course: AR$900

FACULTY:
Dr Fabio Del Piero, Louisiana State University, US
Dr Srinivas Rao, National Institute of Health, Bethesda, US
Dr Francisco Uzal, University of California, Davis, US

September 24-25, 2012: MODULE I: Diseases of Swine, Avian, Horses and Ruminants

September 26-28, 2012
MODULE II: Diseases of Dogs and Cats, Zoo and Exotic Species, Laboratory Rodents and Rabbits, Non-Human Primates, Wildlife and Aquatic Species

REGISTRATION: For inscription: cursopat@vet.unicen.edu.ar For more information, visit: http://www.vet.unicen.edu.ar
Answer to this month’s Diagnostic Exercise:

Diagnosis:
Morphologic Diagnosis: Lacrimal gland, harderization

Typical microscopic findings:
- Alveoli are composed of cuboidal to columnar cells with finely vacuolated cytoplasm
- Alveolar lumens are distinct

Discussion:
In addition to Harderian gland, which lies behind the eye in the orbit and partially encircles the optic nerve, the rodent eye is also equipped with one intraorbital and one extraorbital lacrimal gland composed of serous glands, structurally similar to those found in the parotid gland. The intraorbital lacrimal gland is associated with the eyelid, and the large extraorbital lacrimal gland lies subcutaneously at the base of the ear. The extraorbital lacrimal gland has marked irregularity in size of nuclei and variation in mitochondrial content of the cytoplasm. The lacrimal glands are lobulated and consist of serous acini with narrow lumens and branching duct system of intralobular ducts. Aacinar cells are polyhedral or pyramidal with round to oval nuclei. The extraorbital lacrimal gland has marked irregularity in size of nuclei and variation in mitochondrial content of the cytoplasm (cytomegaly and karyomegaly). These are more prominent in males than females and become more frequent with age. The acini in males are generally larger than those in females. The secretory granules of male extraorbital lacrimal gland are prevalently composed of sulphate substances, those of the female are composed of acid substances, and only a few cells positive to proteins have been seen in the acinar epithelium of the glands. Androgen and estrogen receptors are present in the rat extraorbital lacrimal gland of both sexes.

Harderianization (also known as hardarianization, Harderian gland alteration or ectopic Harderian glandular tissue) consists of the appearance of lipid foci in the extraorbital lacrimal gland. It is not an uncommon finding in aging rats, starting as early as at three weeks of age and increases at six months of age in the male glands, while it is not detectable anymore in those of females. It is not certain if the cells have the metabolic and functional characteristics of Harderian gland cells and thus represent a metaplastic change or whether the change is simply a degenerative one. It appears that the Harderian gland cells develop from undifferentiated basal cells of the acini and the intercalated ducts in the extraorbital lacrimal gland at age 2-6 months. Then, at age 22 months, they also probably developed from those of the excretory ducts of the extraorbital lacrimal gland. It has been suggested that estrogen plays a role in the harderization process. The estradiol present in older female rats may prevent the further lipid degeneration of the female extraorbital lacrimal gland at six months of life, while the disappearance of estrogen receptor in the male gland promotes the development of harderization.

References and Recommended literature:


(More Diagnostic Exercises may be found on the Foundation’s website at: http://www.cldavis.org/diagnostic_exercises.html)
CALENDAR OF UPCOMING EVENTS

**June 2012:**
6/11-15 2012 – Descriptive Veterinary Pathology Course, Louisiana State University School of Veterinary Medicine

6/25 2012 – STP Lunchtime Series

**July 2012:**
7/9-13 2012 – Gross Pathology Course, Colorado State University, Ft Collins, Colorado

7/23-27 2012 – 9th Biennial Short Course on Industrial Toxicology and Pathology, Champaign, Illinois

**August 2012:**
8/11-17 - 2012 Pathology of Lab Animals Course Virginia Tech College of Veterinary Medicine

8/17-19 – 4th Annual Clinical Pathology Workshop for Pathology Residents at Virginia Tech College of Veterinary Medicine

**September 2012:**
9/3-5 – European Division Meeting at University de Leon, Leon Spain

9/24-28 – Latin American Gross Morbid Anatomy Course Centro Cultural Universitario – Irgoyen 662 - Tandil – Buenos Aries - Argentina

BOOKSTORE ORDERS
We occasionally have problems with overseas credit card orders through the bookstore. If you find you cannot place your order please email, call or fax the Foundation at phone: 847-367-4359, fax: 847-247-1869 email: clavisdvm@comcast.net. Make sure you include your name, address, phone, email address and credit card number with expiration date and we will ship your purchase immediately.

ARTICLES NEEDED:
Please Submit Articles Following Your Courses or Workshops

NEWSLETTER DEADLINES
All materials must be received no later than the 15th of the previous month in order to be included in the newsletter.

Articles should be submitted as MS Word documents. Photos should be submitted as a JPEG.

Any advertisements or registration material for symposia or courses should be submitted at least 3-4 months in advance.