NEWSLETTER

AMERICAN SOCIETY FOR VETERINARY CLINICAL PATHOLOGY

February 2005 **Newsletter #1**

Contents

Important Dates

February 28, 2005	Annual dues and address corrections due to ASVCP National Office
December 3-7, 2005	Annual ASVCP/ACVP Meeting, Boston, Massachusetts
December 4, 2005	ASVCP Annual Business Meeting, Boston

President's Message:

Greetings, ASVCP colleagues,

I hope you are all having a productive and enjoyable 2005 so far. You'll be glad to know that the Executive Board has been keeping busy. I just counted up the number of e-mail messages I've had about ASVCP business for the last couple of weeks and the average is 14.7 per day. There are also phone calls, conference calls and FAX's. This is in addition to all the hard work the ASVCP committees are carrying out. It makes it clear that our decision, a couple of years ago, to hire a professional management company to

take on some Society functions was a good one. It allows us to focus on moving forward with our goal of promoting and continuing to improve the specialty of veterinary clinical pathology.

One recent development along those lines was an agreement formalized between the ASVCP and the Veterinary Information Network (VIN) to facilitate online publication of the Veterinary Clinical Pathology (VCP) journal. The goal of this agreement is to provide searchable, electronic article content to ASVCP members and subscribers to VCP as well as the veterinary community. This will provide additional service to members and increase our journal's visibility among other scientists. We would like to express our sincere appreciation to Dr. Paul Pion of the VIN for his very generous donation of $15,000 to the ASVCP as an unrestricted gift.

Another recent decision of the Executive Board was to re-structure our fiscal year to run Oct. 1st through Sept. 30th. While this may not seem to have much immediate impact on most members, it should help us fine tune our budget and financial planning and is another step along the way to setting and achieving more long-term goals for the Society.

If you haven't looked at the ASVCP web-site recently, please check out its new look. Mary Christopher re-designed the front page and it looks great and has several new features including some useful links (thanks to Lois Roth-Johnson and the Electronic Communications and Technology committee) and updated information about all of the ASVCP committees. You can find committee charges for this year and contact information for all of the Executive Board and committee chairs at this site. All of us welcome ideas and suggestions from members. The website is also a good source of information about upcoming meetings--including our upcoming 40th anniversary meeting in Boston, December 3-7, 2005. Mary came up with the beautiful 40th anniversary logo you can see on the front page of the website. Now it's up to the rest of you to contribute photos, ideas, and stories to the celebration. Please send them to me at Susan.Tornquist@oregonstate.edu and I hope to see all of you there.

Best wishes to all.
Sue Tornquist
ASVCP President

Call for Nominations for the 2005 ASVCP Election

The Nominations Committee is seeking nominations for two officers: First-Year Executive Board Member and President-elect. Nominees must be able to attend the ASVCP Executive Board meetings at the annual meeting and participate in telephone conferences and e-mail discussions.

The First Year Executive Board Member participates in all decisions of the Executive Board, coordinates the annual Case Review Session, and serves as liaison to three standing committees. The term of service is two years, but traditionally the First Year

Executive Board member continues on through to President-elect, President and Immediate Past-president. Thus this is a 5 year commitment to the ASVCP. The President-elect serves on the Executive Board, coordinates the Scientific Session at the annual meeting, acts as liaison to several standing committees, and becomes the President at the end of the President's term of office or if the President is unable to fulfill the duties of the office.

To make nominations please contact one of the members of the Nominations Committee:

Harold Tvedten	Tvedten@msu.edu
Jenny Thomas	Thomas@dcpah.msu.edu
Melinda Wilkerson	Wilkersn@vet.k-state.edu
John Harvey	harveyj@mail.vetmed.ufl.edu

Call for ASVCP/ACVP Meeting Abstracts

Initial Call for Abstracts

The next concurrent meeting of the ASVCP and the ACVP will be held December 3-5, 2005, in Boston, Massachusetts. There will be a combined ASVCP/ACVP Clinical Pathology Scientific Session for everyone that has interest in clinical pathology. The format will be similar to that of the 2004 annual meeting. This will be a great opportunity to present experimental or clinical research data to colleagues and we will have both oral platform and poster presentations. The final decision regarding presentation format is at the discretion of the program committee. We encourage participation by a wide variety of individuals including faculty, senior scientists, diagnostic veterinary pathologists/clinical pathologists, and trainees. Presenters are required to attend the meeting. Now is the time for you to start planning your presentations! The deadline for abstract submission is June 1st, 2005. For questions or further information contact Judy Radin at: radin.1@osu.edu or (614) 292-4266.

ASVCP Young Investigator Award

The ASVCP will present a $500 award to the resident or graduate student whose platform presentation is judged best among the competing presentations. Eligibility requirements include a degree in veterinary medicine and enrollment in a residency or graduate program in pathology/clinical pathology or a related discipline. The oral presentation must describe original work of the competitor involving clinical or experimental research that relates to clinical pathology. Presenters are required to attend the meeting. Award selection will be based on the scientific content, abstract composition, clarity of presentation and ability to answer questions. Each trainee may submit only one presentation in this competition.

ACVP Young Investigator Award

If you are a trainee and have a poster presentation, you can submit it for consideration in the ACVP Young Investigator Award. Any abstract submitted for the ACVP Young Investigator Award is ineligible for the ASVCP Young Investigator Award.

SUBMITTING YOUR ABSTRACTS FOR CONSIDERATION

Detailed instructions that explain how to submit an abstract and how to enroll in the ASVCP or ACVP Young Investigator Award competition will follow in the next newsletter and will then be posted on the ASVCP website (www.asvcp.org). Judy Radin will coordinate the combined ASVCP/ ACVP Clinical Pathology Scientific Session of this meeting. Please direct your inquiries for this session to Judy Radin at: radin.1@osu.edu or phone: (614)292-4266

Call for Annual ASVCP Case Review Session Submissions

Call for Slides and Cases

Submissions are requested for the 2005 ASVCP Case Review Session. Materials that may be submitted include hematology, cytology or surgical pathology slides, electron photomicrographs, and interesting clinical chemistry or hematology cases. This is a popular and interactive opportunity to share cases and experiences among attendees.

TYPES OF MATERIAL REQUESTED

Cases should be classic examples or unique or unusual representations of diseases, clinical cases, or research data with a clinical pathologic focus. Cases may represent any species. Analytic problems that are associated with instrumentation, assay conditions, statistical analysis or specimen handling are welcome. Stained, cover-slipped glass slides are preferred, but in certain cases, 2x2 transparencies will be considered. Surgical biopsies should be from lesions that would be examined cytologically, and ideally the submission should include a cytologic preparation.

Case Submission:

MATERIAL NEEDED

Eighty (80) glass slides are needed for each case. The submitter must check all glass slides to assure their quality. Please do not attach adhesive labels to the glass slides. If 2x2 transparencies or histologic sections are submitted, send only one transparency or histologic section. If the case is accepted, the submitter will supply 80 copies of the transparency or histologic slide.

For clinical chemistry or hematology cases, laboratory data including reference intervals for your laboratory should be submitted.

PRINTED MATERIAL / CASE INFORMATION / DIGITAL IMAGES

Please send a hard copy of case information with the slides or data. In addition, send 2 Word files as e-mail attachments to holly.l.jordan@gsk.com. If e-mail or e-mail attachments are a problem, these files may be sent on disk. The first file is the case history to be distributed with the slides sets prior to the meeting and should include contributors, specimen submitted, signalment, concise history, and clinical findings. Please only include pertinent laboratory data and summarize this if possible. The second file is information that will be distributed at the meeting and should include the information on the first file, plus slide description, diagnosis, discussion, and references.

In addition, please send 2-3 digital images that are representative of the lesions on the glass slide for inclusion in the case summary CD. If 2x2 or electron photomicrographs are submitted, digital images of these must be submitted in addition to the non-electronic image. Digital images should be 1024 x 768 pixels in the JPEG format with compression set on high quality. Digital images may be sent by email or disk. If possible, embed copies of images in the discussion section at desired locations. A figure legend in Word should accompany the images. Inclusion of digital images is **required as part of the submission process**.

The goal of this session is to stimulate discussion. Presentation of common laboratory abnormalities that are not related to the case is unnecessary as is a lecture or a literature review with each case. If preferred, the submitter may include discussion questions to be answered at the case review session. These questions may inspire members to review cases before the meeting.

WHEN AND WHERE TO SUBMIT

The deadline for submission of cases is July 1, 2005. Submitters will be notified of the results of the selection process by August 15, 2005. Only 20 cases will be presented at the meeting. Cases not selected for presentation may be returned to the submitter, retained for consideration as a 2006 presentation, or included in the 2005 cases as an interesting case, but not presented. Be sure to include your e-mail address with your submission.

Inquiries and case submissions should be sent to:

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GlaxoSmithKline
Room 9.2007
#5 Moore Dr.
Research Triangle Park, NC 27709

Phone: (919) 483-4909
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E-mail: holly.l.jordan@gsk.com

Call for ACVIM Forum Speakers

The ASVCP arranges speakers for the ACVIM meeting each year. The speakers provide 8 hours of talks reflecting current knowledge and/or in-depth reviews of topics in veterinary clinical pathology. The 2006 meeting will be May 31-June 3 in New Orleans, Louisiana. Please send suggestions for ASVCP speakers and topics for the 2006 ACVIM meeting to Christine Olver at colver@colostate.edu.

Teaching Clinical Pathology: A Forum for Discussion

This year's discussion focused on continuing education (CE) in clinical pathology for the general practitioner (GP). The meeting was well attended (approximately 45-50 attendees) and included strong representation from academic and diagnostic laboratory pathologists. The discussion began with a comparison and contrast of currently provided CE, CE that appears to be in demand from general practitioners, and material that clinical pathologists recommend based on their interactions with clinicians. Highlights of that discussion are provided in the table below.

CE requested by GP	Currently provided CE	Pathologist recommendations
Cytology smear evaluation	Cytology smear review. May be provided by pathologists or specialists boarded in other areas. Often provided in formal sessions or seminars.	1. Help clinicians set realistic expectations given the experience of technicians and veterinarians and the volume of cases in the practice. 2. Consider providing clinicians and technicians with lists of "achievable" diagnoses for in-house cytology 3. Be sure that GP are aware of problem areas in the performance of cytology as a diagnostic tool, educate about "diagnostic dilemmas" 4. Encourage GP to correlate in-house cytology results with pathologist generated reports to learn

		5. Focus on optimal sample collection and handling and requisition preparation to avoid pre-analytical error 6. Encourage GP to read the descriptive and comments sections of pathology reports 7. Pathologists should be involved in cytology CE, but there may be benefit to joint sessions with internists or oncologists
Hematology smear review	Hematology smear review. May be provided by pathologists or specialists boarded in other areas. Often provided in formal sessions or seminars.	Recommendations from the cytology section apply here. In addition 1. GP/technical staff should be sure to review sufficient numbers of "normal" smears to be familiar with biological variation, common artifacts, etc. 2. Emphasize the need to review blood films even if the quantitative data are within reference intervals
Instrumentation, test evaluation	Instrumentation, test evaluation. May be provided by pathologists, internists, or industry representatives. May be provided in formal seminars, or informally in phone consultations in reference to specific tests or patient results.	1. Be sure that GP are realistic about the need for quality assurance programs and maintenance of automated equipment. 2. Be critical of new test performance and how data is used.

Attendees identified several areas of clinical pathology in which they felt continuing education could be improved. Many agreed that case-based instruction in data interpretation should be encouraged because many GP struggle with complex cases. Attendees agreed that a case-based format should also be adopted to improve

instruction in the following important topics, which may be difficult to present in an engaging and clinically relevant way.

1. Interassay variation
2. The impact of little or no quality control
3. The effects of proper sample handling, including delayed separation of serum from cellular elements, in vitro aging artifacts, short-sampling or underfilling of specimen tubes, submission of inappropriate samples for testing and other sources of pre-analytical error
4. Interferences, including oxyglobin, hemolysis, lipemia, drug effects
5. The appropriate use of reference intervals in data interpretation, including the use of intervals generated at other laboratories, how to identify a "normally abnormal" value, identification of values that fall within the reference interval as a result of multiple superimposed pathologic processes, and effects of breed, age, reproductive status, etc on reference values
6. Comparison of results from different instruments or laboratories
7. Interpretation of serology data, including discriminating between exposure and disease, cross-reactivity, determination of a "positive" result, and comparison of values between different laboratories.

In combination with a recent recommendation from the Executive Board to develop shared educational resources, the Education Committee would like to solicit submissions of cases related to the concepts listed above. Where appropriate, submission of .tif images is encouraged. The cases should have a brief clinical history, laboratory data, and an interpretation supported by citation of appropriate literature. The cases will be peer-reviewed by members of the Education Committee and the Executive Board and cases that are accepted will be posted on the ASVCP website as a general resource. The Education Committee is encouraging the submission of appropriate cases by technicians, residents, and pathologists. Please forward them to Leslie Sharkey (shark009@umn.edu). The following cases are offered as examples, although THEY HAVE NOT BEEN PEER-REVIEWED!

Case 1: DRUG EFFECTS, ANALYTICAL SPECIFICITY
Leslie Sharkey
"Jester" is a 5-year-old neutered male Labrador Retriever presenting for lameness of 5 months' duration. There has been mild improvement, but he continues to limp consistently. Jester has recently been on a calorie restricted diet to curb his obesity, and he has reduced his weight by 20 pounds in the last 6 months. Jester has a history of idiopathic seizures and is being treated with potassium bromide and phenobarbital. On physical examination, Jester has thickening and instability of his right stifle and is very painful with full extension of the joint.

Glucose:	81 mg/dl	(75.0-117.0)
BUN:	9 mg/dl	(9-31)
Creatinine:	0.8 mg/dl	(0.5-1.5)
Phosphorus:	4.0 mg/dl	(2.6-7.2)

Calcium:		10.0 mg/dl	(9.5-11.5)
Magnesium:		1.8 mEq/L	(1.7-2.5)
Total Protein:		6.4 g/dl	(5.5-7.8)
Albumin:	↓	2.5 g/dl	(2.8-4.0)
Globulin:	↑	3.9 g/dl	(2.3-4.2)
Sodium:		145 mEq/dL	(145-153)
Chloride:	↑	133 mEq/dL	(109-118)
Potassium:		4.9 mEq/dL	(3.6-5.3)
Anion gap:	↓	-1	(15-28)
TCO_2:		18 mEq/dL	(15-28)
Total Bili:		0.3 mg/dl	(0.0-0.3)
Alk Phos:	↑	719 U/L	(8-139)
GGT:		4 IU/L	(0-6)
ALT:		47 U/L	(10-95)
AST:		33 U/L	(10-56)
Cholesterol:		216 mg/dl	(110-314)
Amylase:		676 U/L	(400-1200)

Interpretation:

The hyperchloremia is likely attributable to ***in vitro effects of the potassium bromide treatment due to lack of analytical specificity of the ion specific electrode for chloride*** (Stockham)***.*** This methodology will measure the bromide in the blood as chloride and the value does not reflect a true hyperchloremia.

The ***decreased anion gap is related to the artifactual elevation of chloride and possibly the hypoalbuminemia***, which is interpreted to be a "true" finding. Some authors report the development of hypoalbuminemia after treatment with phenobarbital (Chauvet), while others do not (Gieger). The combination of hypoalbuminemia and hyperglobulinemia could be explained by inflammation since globulin production increases and albumin production decreases as part of the acute phase response. Alternatively, albumin may be decreased in association with liver failure or increased losses via the skin, urinary or gastrointestinal systems.

Increases in ALP are common and nonspecific in the dog and may be associated with a variety of hepatic and extrahepatic causes. The absence of elevations in any other liver enzymes or bilirubin and the history of limping indicates that elevations in the bone isoenzyme should be considered, although this would be more compatible with a bone tumor such as osteosarcoma than with joint pathology. ***In this case, the history of treatment with phenobarbital suggests that drug-induced enzyme induction is likely.*** In contrast to the *in vitro* analytic effects of treatment with potassium bromide, treatment with phenobarbital causes a "true" *in vivo* elevation in ALP and ALT by inducing enzyme synthesis without necessarily causing concurrent hepatocellular damage or biliary stasis. Increased ALP is attributed to elevations in the corticosteroid-induced and liver isoenzyme activities and with a minor increase in the bone isoenzyme activity (Gaskill). Isoenzyme analysis does not appear to be useful for differentiating between high serum total ALP due to phenobarbital therapy and that associated with

other causes. AST and serum total bilirubin are generally not increased by the drug-induction process and increases in these analytes suggest the development of phenobarbital-induced hepatoxicity and further clinical evaluation of the patient for liver disease is indicated (Muller).

Outcome:

Jester was diagnosed with a rupture of his right cranial cruciate ligament with secondary arthritis. Surgical correction and further weight reduction were recommended. No further diagnostic work for the elevated ALP was indicated.

Chauvet AE, Feldman EC, Kass PH. Effects of Phenobarbital administration on results of serum biochemical analyses and adrenocortical function tests in epileptic dogs. J Am Vet Med Assoc 1995;207:1305-1310

Gaskill CL, Hoffmann WE, Cribb AE. Serum alkaline phosphatase isoenzyme profiles in phenobarbital-treated epileptic dogs. Vet Clin Path 2004;33:215-222.

Gieger TL, Hosgood G, Taboada J, Wolfshemier KJ, Mueller PB. Thyroid function and serum hepatic enzyme activity in dogs after Phenobarbital administration. J Vet Intern Med 2000;14:277-281.

Muller PB, Taboada J, Hosgood G, Partington BP, VanSteenhouse JL, Taylor HW, Wolfsheimer KJ. Effects of long-term Phenobarbital treatment on the liver in dogs. J Vet Intern Med 2000;14:165-171.

Stockham SL, Scott MA. Monovalent electrolytes and osmolality. In: Fundamentals of Veterinary Clinical Pathology. Iowa State Press, Ames IA. 2002. pp 337-380.

Case 2: PRE-ANALYTIC ERROR and REFERENCE INTERVALS

Leslie Sharkey, Cheryl Stockman, Joyce Knoll

"Hamlet" is a 13-year-old Vietnamese pot-bellied pig presented for evaluation of a gingival proliferation adjacent to his right tusk. Hamlet had a previous surgery to remove the left tusk because it was abscessed. His owners report that he has been drinking and urinating more frequently and has been lethargic. Hamlet was admitted for a computed tomography (CT) scan and dental examination under anesthesia to evaluate him for the presence of another abscess associated with his remaining tusk. Pre-anesthetic blood work revealed the following data.

White blood cell count:	↑	21.1 X 10^9/L	(5.2-17.9)
Segmented neutrophils:	↑	13.5 X 10^9/L	(0.0-11.4)
Band neutrophils	↑	0.84 X 10^9/L	(0-0.19)
Lymphocytes:		4.64 X 10^9/L	(0.8-9.8)
Monocytes:	↑	1.1 X 10^9/L	(0.00-0.67)
Eosinophils:		0.4 X 10^9/L	(0.0-0.73)

Basophils:	0.4 X 10^9/L	(0-0.61)

WBC Morphology: A few reactive lymphocytes seen

Hematocrit:	38%	(22-50)
Red blood cell count:	6.25 X 10^{12}/L	(3.6-7.8)
Hemoglobin:	13.8 g/dl	(7.8-16.2)
MCV:	58 fl	(55.0-71.0)
MCHC:	36.3	(31.0-36.0)

RBC Morphology: Slightly increased anisocytosis and polychromasia with a few macrocytes
Platelets: clumped, but appear adequate

Glucose:	↓	8 mg/dl	(59.8-175.2)
BUN:		13 mg/dl	(4.2-15.1)
Creatinine:		0.9 mg/dl	(1.0-2.3)
Phosphorus:	↓	6.4 mg/dl	(7.8-10.9)[1]
Calcium:	↓	<0.2 mg/dl	(10.2-11.9)[1]
Mg:	↓	0.6 mg/dl	none found
Total Protein:		8.9 g/dl	(6.6-8.9)
Albumin:		4.0 g/dl	(3.6-5.0)
Globulin:	↑	4.9 g/dl	(1.9-2.4)[2]
Sodium:		144 mEq/L	(139-148.8)
Chloride:	↓	95 mEq/L	(106-113)
Potassium:	↑	15.7 mEq/L	(3.7-5.0)
Total Bili:		0.1 mg/dl	(0.2-0.45)
ALP:		58 U/L	(27-160)
GGT:	↑	57 U/L	(14.5-56.2)
AST:	↑	244 U/L	(16-64)
CK:	↑	3846 U/L	(212.5-2851.5)

Note: Hematology and chemistry reference intervals were obtained from Dr. Charles Brockus at Iowa State University based on 100 Vietnamese pot-bellied pigs unless otherwise indicated. Hamlet presented to another large academic referral center.
[1]Reference laboratory values: sheep, goats and swine, page 660 in Veterinary Drug Handbook, pocket edition, DC Plumb, PharmaVet Publishing1991. [2]Biochemistry Reference intervals, porcine, http://www.uoguelph.ca/ahl/UsersGuide/18_CHEM_%20REF_INTERVALS.htm.

Interpretation:

CBC:
Hamlet has a neutrophilic leukocytosis with a mild regenerative left shift and monocytosis that could be compatible with the tusk abscess mentioned in the clinical history. The reactive lymphocytes are a non-specific finding indicative of antigenic stimulation.

Serum biochemistry:

Preanalytical error

Several things should be noticed immediately about this case. The first and most important is that several values (glucose, calcium, and potassium) are markedly abnormal and likely incompatible with life. This would be very unusual in a patient that does not appear to be critically ill on presentation. Artifacts and analytical and pre-analytical error should be considered.

Although physiologic causes of hypoglycemia such as liver failure or sepsis could not be conclusively ruled out based on a single measurement, an extremely low glucose level in the absence of clinical signs may be the result of ***delayed separation of serum or plasma*** from the cellular elements of blood. Glucose in the sample may be consumed at a rate of 10% per hour if separation is not performed unless sodium fluoride is added to the sample to inhibit enzymes in the glycolytic pathway (Thrall).

Extremely low calcium values can be the result of chelation of calcium by EDTA. Rarely, EDTA is used therapeutically, while occasionally ***plasma containing EDTA is mistakenly submitted for a serum biochemical profile,*** as was the case for Hamlet. This explains the low magnesium level as well. EDTA is available as a disodium or dipotassium salt, typically the latter for improved solubility (Tietz). The high potassium content of the anticoagulant is reflected in the markedly elevated potassium value measured in the sample.

"Lab error" is a general term commonly used in the clinic to explain what are assumed to be erroneous laboratory data. The term suggests a technical problem occurring in the laboratory associated with human error or a problem with an automated analyzer. In actuality, rigorous quality assurance programs in most large human and veterinary laboratories minimize errors in the analytical phase of analysis. Recent studies in human medical laboratories have documented that most "laboratory error" is the result of pre-analytical error (Bonini, Witte), predominantly originating in the care units, not the laboratory (Wiwanitkit). Although we are unaware of similar studies in veterinary medicine, our laboratories also routinely encounter instances of pre-analytical error. Therefore, careful attention to sample collection and handling by clinical and laboratory personnel has the potential to markedly increase the quality of care in both human and veterinary medicine.

Use of reference intervals

The measured values for other analytes that fall outside the reference intervals in this case are more likely to be "real", or to reflect true *in vivo* values. The clinical significance of the fact that they fall outside reference intervals must be interpreted in light of the fact that the reference values used were not determined by the laboratory performing the analysis. ***Because reference values are influenced by methodology, including small differences between individual machines, reagent systems, and other variables, it is always preferable to use intervals determined for individual instruments using a single reagent system***. This may not be possible for less frequently seen species at veterinary hospitals due to lack of sufficient numbers of

healthy animals of a given species or because of cost considerations. If reference intervals determined at an outside laboratory must be used, clinicians should be critical of the significance of small deviations from the reference interval and should consider the fact that a value that falls within the reference interval may not be “normal”, although this may be the case even if in-house intervals are used. In general, hematology reference intervals are more consistent between laboratories than chemistry values.

Case Outcome

CT scan revealed abscess and fracture of the right tusk. Hamlet was discharged on antibiotic therapy and scheduled for surgical removal of the tusk the following week.

References

Bonini P, Plebani M, Ceriotto E, Rubboli F. Errors in laboratory medicine. Clin Chem 2002;48:691-698.

Thrall MA. Veterinary Hematology and Clinical Chemistry. Lippincott Williams and Wilkins, Philadelphia PA. Sample collection, processing and analysis of laboratory service options. Pp 39-44.

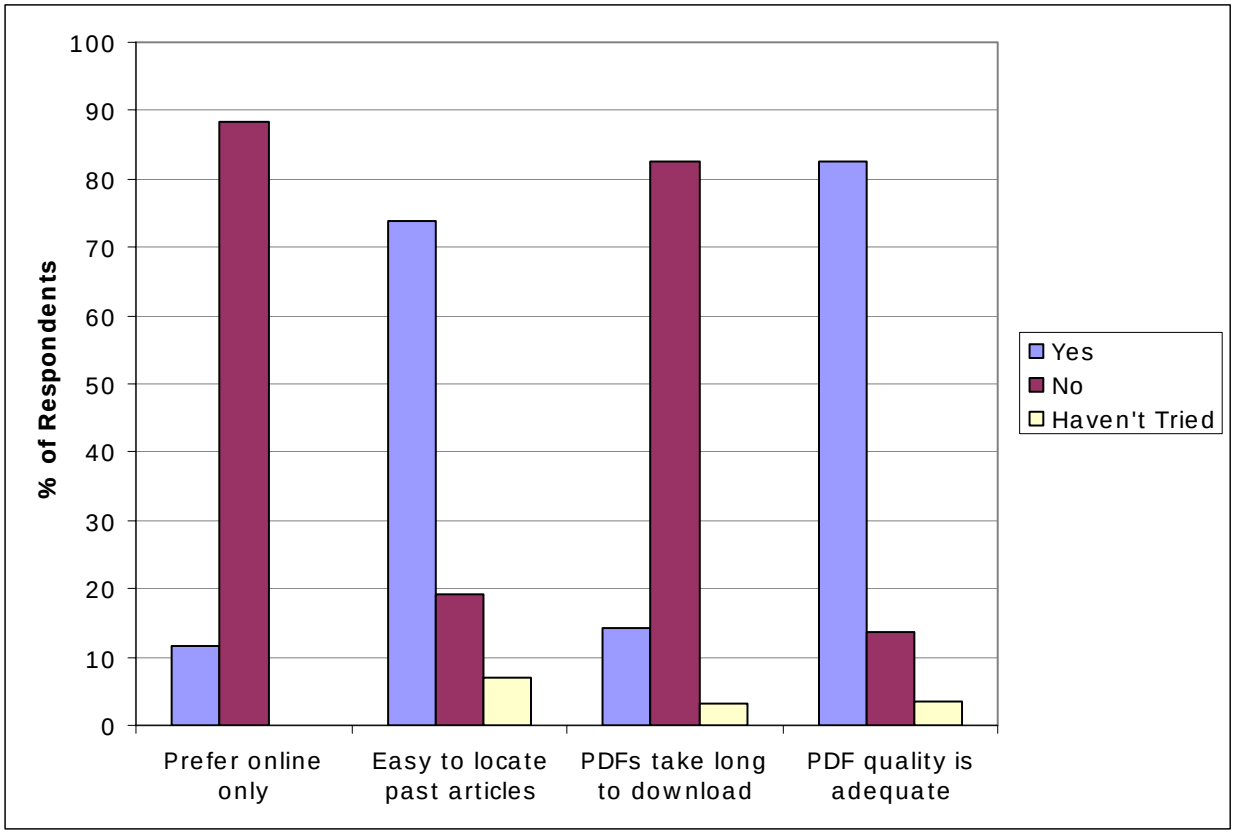
Wisanitkit V. Types and frequency of preanalytical mistakes in the first Thai ISO 9002:1994 certified clinical laboratory, a 6-month monitoring. BMC Clinical Pathology 2001;1:5.

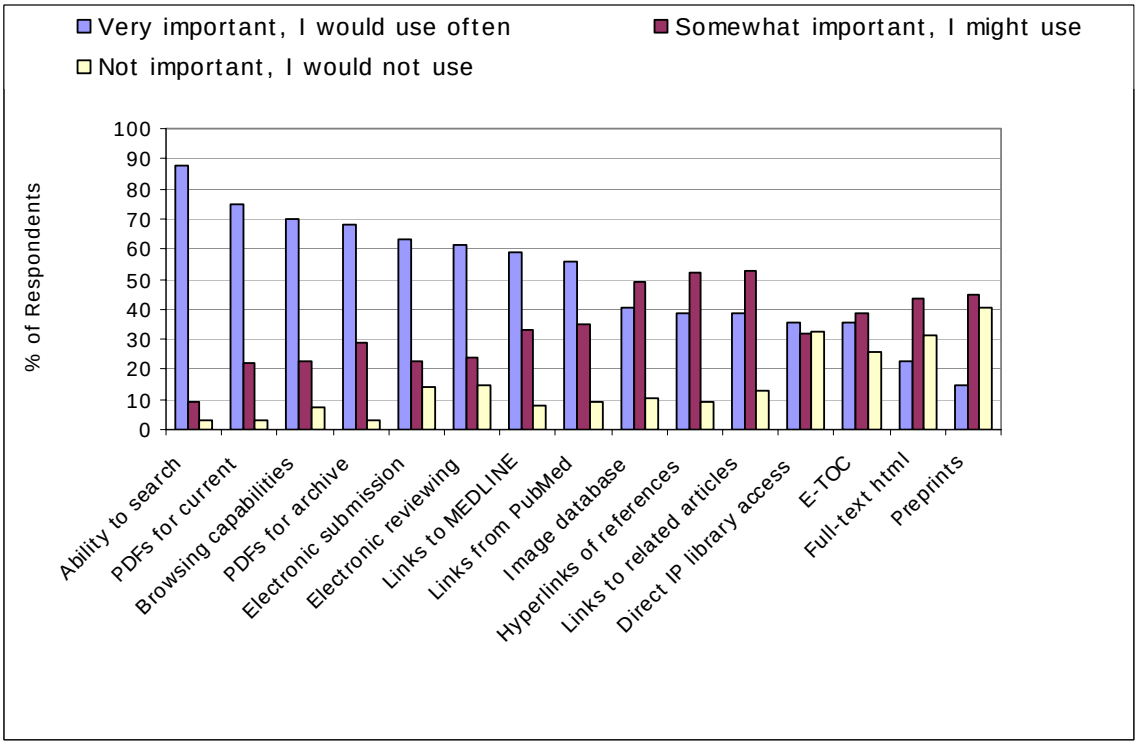
Witte DL, Astion ML. Panel discussion; how to monitor and minimize variation and mistakes. Clin Chem 1997;43:880-885.

Young DS, Bermes EW. Specimen Collection and Processing: Sources of Biological Variation. In Tietz Fundamentals of Clinical Chemistry, 4th ed. CA Burtis and ER Ashwood, eds. W.B.Saunders Co, Philadelphia, PA. 1996. pp 33-52.

Electronic Journal Survey Results

An e-mail survey was sent to ASVCP and ESVCP members in September 2004. The purpose of the survey was to determine the importance of different electronic journal features for readers of *Veterinary Clinical Pathology*. We will use the information to prioritize future electronic publishing efforts for the journal. Ninety-nine people responded to the survey, with 87–99 responses per item. The Figures show the percentage of respondents for each item. The majority of readers prefer to receive paper copies of the journal, but most also take advantage of the online PDFs. Features most important to the majority of respondents were the ability to search, PDF articles for past and present articles, browsing, online submission and reviewing of manuscripts, and links to PubMed. Thanks to all of you who completed the survey!





--Submitted by Mary Christopher, *Veterinary Clinical Pathology* Editor-in-Chief

ASVCP Committee Updates

Veterinary Laboratory Professionals Committee

At the 2004 annual meeting Nicole Rosen led a round table discussion titled “Records and Sample Retention”. A total of 15 Universities responded to the questionnaire that was sent out. Here is summary of some of those questions and responses.

QUESTION	RANGE OF RESPONSES
How long do you save serum samples?	3 days - 1 year Most said 1 week
How do you store them?	Fairly even split between freezer and refrigerator
How long do you save your EDTA tubes?	1 day - 2 weeks Most said 2-7 days
How do you store them?	Refrigerator
How long to you save your Sodium Citrate samples?	Not at all - 1 month
How do you store them?	Fairly even split between freezer and refrigerator
How long do you save your urine samples?	Through end of day - 3 months
How do you store them?	Most refrigerate, some then transfer samples to the freezer
Do you use a preservative?	Majority said NO
How long do you save your fluid samples?	1 day - 2 weeks
How do you store them?	Refrigerator
How long do you save the slides?	2 years - forever
Do you save all of the slides or just the ones that pathologist used?	Even split between the two choices

How long do you save your analyzer printouts?	1 month - indefinitely Most are between 1-10 years
How long do you save your requisitions?	1 week - forever Most are between 1-10 years
How long do you save your QC data?	1 year - forever Most are between 4-7 years

Although some of these questions resulted in a wide range of responses, most were within the same general area.

With many of our labs falling under different standards (CLIA, AAVLD, ISO etc), we can only expect to have similarity and not uniformity.

Thank you to Nicole and the participating Universities for their efforts.

--Submitted by Lisa Shipp

Quality Assurance and Standards Committee

The committee met by teleconference for the first time on Jan 18 and reviewed the president's charge for 2005. Work is continuing on the guidelines, especially for crossmatching headed up by Karen Russell. In-hospital vet lab testing and immunoassays will be reviewed by various committee members for feasibility of developing guidelines over 2005/6. ASVCP members with expertise in this area should feel free to help in this endeavor.

The main focus of the QA&S committee will be to design 5 autotutorials in 2005. The format for the initial cases will not be complex, but will address useful QC/QA issues that arise in the lab on a regular basis. Many ASVCP members will be tapped for their interest and expertise in this area. Look for the tutorials on CD at the end of the year.

Kendal Harr mentioned a new database project called ZIMS (Zoological Information Management System) being pursued by many different sources. The database will contain information other than clinical pathology data and the project has participants from a variety of backgrounds. Look for an article on this project in the ASVCP Newsletter sometime this year.

--Submitted by Renee Pearson, Committee Chair

Development Committee

Activity has mostly been behind the scenes so far this year. The "Share the Future" campaign is off and running (we kicked it off at the 2004 meeting in Orlando). Although the literature has not gone out to the general membership, we have already received several donations. The Society has received generous donations from Holly Jordan, Mike Fry, and Mike Scott. In addition, at least one of these donations will be matched. Thank you to those who have already contributed!! And to those who are planning to contribute, when you are filling out the contribution form, remember the challenge from Harold Tvedten – Harold will contribute $1000 if a member contributes at least $500 or a corporate donor doubles their previous annual contribution. I think it is our obligation as Harold's colleagues to take him up on his offer!!

The Committee is also contacting our corporate donors for sponsorship of the 40th Anniversary Celebration in Boston in December 2005. If you can help us with contact names, please email (karyn.bird@oregonstate.edu) or phone (541-737-8233) me with the information…we can use your help to make this a celebration to remember!

--Submitted by Karyn Bird, Committee Chair

Executive Board News

In addition to the Executive Board and Annual Business Meeting sessions held at the Annual Meeting of the ASVCP, the members of the ASVCP Executive Board correspond regularly during the year via electronic mail and teleconferences to accomplish the Society's business. Since publication of the ASVCP Newsletter #4, 2004 (December issue), the Board has decided a number of issues by majority vote. We approved stipends for *Veterinary Clinical Pathology* journal Editor Mary Christopher and Associate Editor Karen Young. We approved the 2005 budgets submitted by our standing committees. The Regulatory Affairs Committee has written a position paper in response to a European Medicines Agency request for a recommended testing approach for detection of hepatotoxicity in pharmaceutical research animals, and we agreed to allow the committee to post the paper on the "members only" portion of the ASVCP website, so that all interested members can review it and make comments. We approved a Procedure for Evaluation of Position Statements, so that we can have a more uniform approach to ASVCP endorsement of position papers in the future. We approved a list of links for the ASVCP website, based on member suggestions solicited by the Electronic Communication and Technology Committee. We voted to change the Society's fiscal year from January 1 through December 31 to October 1 through September 30, beginning in 2005. We approved use of an ASVCP 40th Anniversary logo which was designed by Mary Christopher, and we also approved formatting changes to the ASVCP website that were suggested by Mary. We have accepted the applications of several new members: Charles Bull, William Cothern, Judy Franklin, Kerstin Glaser,

Ada Hensley, Michael Linn, Peoro Luiz de Azevedo Marinho, Deborah Meter, Kimberly Niessen, Shannon Pedersen, Valarie Wong, and Shannon Zablotsky. Welcome new members!

Announcements

ASVCP National Office: Members can contact the ASVCP National Office at 7600 Terrace Avenue, Suite 203, Middleton, WI 53562; Phone 608-831-7829; Fax 608-831-5122; E-mail info@asvcp.org.

Electronic Newsletters: If you have any problems accessing the newsletter electronically, please contact the ASVCP National Office (info@asvcp.org) or ASVCP Secretary Marlyn Whitney (whitneym@missouri.edu).

Change of Address: Please send any changes in mailing address or electronic mail address to the ASVCP National Office at 7600 Terrace Avenue, Suite 203, Middleton, WI 53562; Email: info@asvcp.org; FAX 608-831-5122.

ASVCP Newsletter and/ or Website Submissions: If you have any material of interest to post in the newsletter or on the ASVCP website (www.asvcp.org), please contact the ASVCP Secretary, Marlyn Whitney, at D102 Veterinary Medical Diagnostic Lab, University of Missouri, Columbia, MO 65211; Email: whitneym@missouri.edu.

ASVCP Membership Application: Member application forms are available at the ASVCP website (www.asvcp.org), by contacting ASVCP Secretary Marlyn Whitney at whitneym@missouri.edu, or by contacting the ASVCP National office at 7600 Terrace Avenue, Suite 203, Middleton, WI 53562-3174; phone 608-831-7829; Email: info@asvcp.org.

Upcoming Meetings

American College of Veterinary Internal Medicine Forum: June 1-4, 2005, Baltimore, Maryland. For more information, go to www.ACVIM.org.

142nd American Veterinary Medical Association Convention and 28th World Veterinary Congress: July 16-20, 2005, Minneapolis, Minnesota. For more information, go to www.avmaconvention.org.

European Congress on Comparative and Veterinary Clinical Pathology: 7th Annual General and Scientific Meeting of the European Society of Veterinary Clinical Pathology / European College of Veterinary Clinical Pathology; 2nd Joined Meeting of the AECCP and ESVCP/ECVCP. June 21-24, 2005, Utrecht University, Utrecht, The Netherlands. For more information, go to www.esvcp.com.

American Society for Investigative Pathology Annual Meeting / Experimental Biology 2005: April 2-6, 2005, in San Diego, California. The ACVP will be a guest society at the ASIP meeting at Experimental Biology 2005, and ACVP members can register for the meeting at ASIP member rates and can submit abstracts to the meeting (www.miracd.com/eb2005). The Experimental Biology meeting attracts 12,000-15,000 scientists annually. The ACVP will sponsor the symposium, “Mutant Animal Models: Phenotyping and Comparative Medicine,” on April 3 from 2-5 pm. For more information, go to www.asip.org.

Job Opportunities

Senior Clinical Pathologist. At Schering-Plough, we rely on the diversity of our people to contribute to the developments that make our products so important around the globe. Our employees bring the best of science and business to our quest for medical advancement...and we maintain an ongoing commitment to attract and retain a diverse population of top professional talent worldwide. We currently have the following opportunity available in **Lafayette, NJ**. In this position, you will interact with chemists, pharmacologists, molecular biologists, toxicologists and physicians to research mechanisms of drug efficacy and toxicology, evaluate drug safety, and develop strategies for registration of superior new therapies worldwide. To qualify, a DVM/VMD is required, and a PhD in Pathology and board eligibility/certification by the American College of Veterinary Pathologists are desired. Individuals with clinical pathology experience in investigative and toxicologic pathology are encouraged to apply. Apply online at **www.schering-plough.com/careers** Search for Requisition I.D. **10816BR**. Schering-Plough is an equal opportunity employer.

Veterinary Clinical Pathology Position. The Department of Safety Assessment, Merck Research Laboratories, West Point, PA is seeking a veterinary clinical pathologist for a position as an Associate Director or Director of Clinical Pathology. Required qualifications include a DVM or equivalent degree with advanced training in clinical pathology and a PhD degree in a discipline relevant to clinical pathology. Board certification as a veterinary clinical pathologist by the American College of Veterinary Pathologists is preferred; however, individuals with board eligibility will be considered. Excellent interpersonal as well as verbal and written communication skills are required. Preferred qualifications include prior experience directing a clinical pathology laboratory, experience interpreting clinical pathology data relating to toxicology studies in relevant species, experience working in a GLP environment, and knowledge of biomarker assay development. Responsibilities include management of two clinical pathology laboratories on the West Point site responsible for generating routine hematology, clinical chemistry, and urinalysis data as well as a separate group focused on the development of biomarker assays. Group management duties include five direct reports that coordinate approximately 20 staff. The successful candidate will be expected to interact with scientists in other areas of Safety Assessment and in Basic Research to guide clinical pathology issues relating to toxicological findings. The Clinical Pathology Laboratory in Safety Assessment, MRL is a global organization with laboratories in the United States, France, and Japan. As such, this individual will interact with individuals in the clinical pathology laboratories in France and Japan. The successful candidate will work with and report to the Director of Clinical Pathology and Acute Toxicology, a board certified veterinary clinical pathologist. Our commitment to our employees resonates in the benefits we offer including competitive compensation, tuition reimbursement, work-life balance initiatives, on-site child care at many of our locations and opportunities for personal and professional enrichment. Join us and become a part of our commitment and our legacy which continues to deliver novel medicines to the people that need them the most. To apply, please visit www.merck.com/careers and search for Job#SCI002364. We are Equal Opportunity Employer, M/F/D/V. No agencies or phone calls.

Doctor of Veterinary Science (DVSc) in Clinical Pathology. A 3-year training position is available beginning in September 2005 in the Department of Pathobiology at the Ontario Veterinary College, University of Guelph. The program is designed for individuals seeking research experience and advanced training in clinical pathology leading to eligibility for certification by the American College of Veterinary Pathologists (ACVP). The graduate program in clinical pathology is directed by 4 board-certified clinical pathologists, and is closely integrated with the graduate programs in anatomic pathology, microbiology and immunology. The DVSc degree comprises coursework, a general qualifying examination, a research project, and a thesis. A competitive stipend is awarded annually upon satisfactory progress. Applicants with a strong academic record from an accredited veterinary school, evidence of interest and commitment to pathology, and eligibility to practice veterinary medicine in Ontario are encouraged to apply by March 1, 2005. Submit 3 letters of recommendation, a curriculum vitae, certified transcripts and a completed application form and fee to: Donna Kangas, Graduate secretary, Department of Pathobiology, University of Guelph, Guelph, ON, CANADA, N1G 2W1. For information on how to apply to Graduate Studies at the

University of Guelph, see: www:uoguelph.ca/GraduateStudies/gsmail/app.html. General questions about graduate studies in the Department of Pathobiology should be directed to Donna Kangas at the above address or by telephone 519-824-4120 x 54725, fax 519-824-5930, or e-mail dkangas@uoguelph.ca. Specific questions about the program may be directed to Dr. D. Bienzle, Department of Pathobiology, University of Guelph, Guelph, ON, N1G 2W1. (dbienzle@uoguelph.ca).