AAVP Newsletter

American Association of Veterinary Parasitologists

October, 2000 **Volume 22, Number 3**

From the President

Dear AAVP Member:

Since the annual meeting in July, various committee chairs have been seeking new members for committees, the lifeblood of the AAVP. If you didn't get a chance to volunteer for your favorite committee in Salt Lake, feel free to contact committee chairs directly or send me an email (tom.kennedy.b@bayer.com) and I will ensure you are in contact with the committee of your choosing. The AAVP really does run on the activities of our committees, so please lend a hand. Committee chairs have been tasked by the Board to develop an overview of the function of each committee by next year's meeting. This should make transitions between chairs less traumatic and provide continuity of function of the committees over the years.

It's not too early to start preparing for next year's meeting in Boston. The call for abstracts will be out in late December, so start preparing that data. As the most vital organization in veterinary parasitology in the world, it is imperative we continue our strong commitment to our annual meeting.

Dr. Merle Olson, Health Sciences, University of Calgary, has organized a conference entitled " Giardia in the Rockies" to take place 18-20 October 2000 in Canmore, Alberta. This group meets infrequently in an attempt to keep researchers apprised of research activities in both human and animal giardiasis. Interested parties should contact Dr. Olson at (403) 220-6836 or email molson@ucalgary.ca. *Submitted by Tom Kennedy, President AAVP.*

From the Secretary Treasurer

From the Secretary/Treasurer

The 45th annual AAVP meeting was held 22-25 July 2000 at the Salt Lake City Marriott Hotel, Salt Lake City, Utah. The meeting attendance this year was around 220 members and guests including several of our international members. Dr. Anne Zajac, as Program Chair, should be commended for organizing the scientific program, which resulted in concurrent well-run and organized sessions including several different symposia and series.

I would like to thank all of our Corporate Event Sponsors, Corporate Sponsors and Meeting Sponsors. Support at each of these levels has been instrumental in keeping our Association solvent and has allowed us to develop and implement a number of awards, have excellent meetings and keep our meeting registration fees at a reasonable rate. This year Bayer Animal Health, Pfizer Animal Health and Novartis Animal Health, as Corporate Event Sponsors, each hosted an evening

CONTENTS

From the President ____ *1*
From the Secretary Treasurer ____ *1*
Awards ____ *2*
Committee Reports ____ *7*
Positions Available ____ *8*
Database Information ____ *10*
Future Meetings ____ *11*
Future Meetings of the AAVP ____ *11*
Membership Applications ____ *12*

reception in conjunction with special symposia or series. These Symposia/Series and receptions are greatly appreciated by the membership, they provide a great venue for the dissemination of new information on areas of scientific interest to our membership and I hope that we can continue to have these events at each years meeting. This year Merial again sponsored a symposium on Computers as Tools for the Veterinary Parasitologist. This has become an ongoing Symposium series sponsored by Merial. Speakers were identified by Merial who are not routine participants of AAVP which I hope can benefit both the speakers by allowing them to learn more about our organization and members and also benefit the AAVP membership by the scientific presentations from cutting edge research scientists from a variety of disciplines.

Enclosed in the newsletter is a form for submission of dues for 2001. The 2000 dues year runs from September 1, 2000 to August 31, 2001. The AAVP membership dues are still a great bargain, $20 annually for regular members and $10 for students. Please call or email me if you have any questions about your dues status. Also, in the Newsletter is a new members application form. If you have students or colleagues who would be interested in joining AAVP, please pass along a copy of this form to them. Look at the mailing address on the envelope that contained your Newsletter and please let me know of any changes in your mailing address including changes to your telephone, FAX or Email. Dues and all correspondence to the secretary-treasurer should be addressed to: Dr. Daniel E. Snyder c/o Elanco Animal Health, Mail drop GL18, PO Box 708, Greenfield, IN 46140, phone: 317/277-4439, fax: 317/277-4532, email: snyder_daniel_e @Lilly.com. *Submitted by Dan Snyder, Secretary-Treasurer AAVP.* □

Awards

AAVP Distinguished Veterinary Parasitologist Award (sponsored by Pfizer Animal Health)

The AAVP Distinguished Veterinary Parasitologist Award recipient for 2000 is Dr. Edward Roberson, Professor Emeritus of Veterinary Parasitology, University of Georgia. A bibliography about Dr. Roberson was published in the Proceedings. The following is a synopsis of his talk presented at the meeting.

Dr. Rob Rew (left), President AAVP and Dr. Joan Lunney (right), Chair of the AAVP Awards Committee, present the AAVP Distinguished Parasitologist's Award to Dr. Edward Roberson (Center).

Acceptance of the AAVP Distinguished Veterinary Parasitologist Award by Edward L. Roberson, MAT, DVM, PhD

Thank you Dr. Lunney for such a nice introduction in quotes from letters of recommendation. I'm very honored to be standing here, and it is, in large measure, due to being in the right place at the right time, i.e., being at The University of Georgia for my PhD training in the 1960s and for my teaching/ research career afterward, where there was such an enthusiastic and cooperative spirit campus wide. Parasitologists from the Departments of Zoology (Barclay McGhee), Entomology (A. B. Weathersby), and Poultry Science (Malcolm Reid, Larry McDougald) joined faculty of the College of Veterinary Medicine (Helen Jordan, Frank Hayes, Bill Hanson, Paul Thompson, Edward Roberson, Katherine Prestwood, John McCall, and Victor Nettles) and off-campus adjunct faculty members (Rick Ciordia, John Studemann, Bonner Stewart) to form a campus wide Faculty of Parasitology, which was funded by an NIH training grant to

bring in seminar speakers and to fund graduate training. It was a truly wonderful research environment. Helen attracted me to Georgia. I,as well as John McCall, Jack Malone, Victor Nettles, and Mike Dzimianski, received PhD and/or DVM degrees there; Tom Klei did a postdoctoral. Many of Georgia's early parasitologists have now moved elsewhere, passed away, or retired. Currently, at the College of Veterinary Medicine are John McCall (who has been at Georgia since its founding in 1785); Victor Nettles; Susan Little, who came into my position; David Peterson; and, most recently, Ray Kaplan. What a great team they make. They enhance the research/teaching environment all the more.

After finishing my PhD degree with Bill Hanson, I was lucky to be able to stay on at Georgia, with a research/teaching/service career that encompassed some wonderful graduate students - Mike Burke, Dennis Anderson, Flynn Nance, Chuck London, and Bob Hill. Dr. Hanson and I worked for a number of years on the immunity to *Trypanosoma cruzi*. Subsequently, graduate student Mike Burke and I began to investigate bitch-to-pup transmission of ascarids and hookworms in dogs. These investigations extended over approximately a 10-year period, during which we sprinkled in a dozen or so anthelmintic studies. These were fun, because of enjoyable moderators like Ray Plugh, Roberto Alva, John Paul, and Reiner Muser; well executed, because of an extremely capable technician, Dana Ambrose; and informative, which provided a basis for my writing and revising chapters in four editions of *Veterinary Pharmacology and Therapeutics* from 1977 to 1995. Charlie Courtney and Byron Blagburn are now doing that.

I'll focus a bit now on the research involving bitch-to-pup transfer of canine ascarids and hookworms. By the mid-1970s, work in Germany by Stoye (1976, Deutsche Tierärztliche Wochenschrift 83: 107-108) reported that the prenatal transmission of *Toxocara canis* predominated over lactational transmission. Work in the 1920s through the 1960s had concluded that *Ancylostoma caninum* was also transmitted prenatally (pups were generally not taken away from the bitch immediately after birth and, therefore, nursed for a day or so). Stone and Girardeau (1968, Journal of Parasitology 54: 426-429) and Miller (1971, Advances in Parasitology 9: 153-183), quantitating hookworm larvae in the bitch's milk, began to suggest that the lactogenic route may be as important or more important than the prenatal route of hookworm transmission. Stoye (1973, Zentralblatt für Veterinärmedizin [B] 20: 1-39), using experimentally infected bitches, was unable to demonstrate prenatal hookworm infections.

Our aim was to quantitate the relative importance of the prenatal and lactational routes of transmission of these two parasites and to investigate means of reducing pup infections so as to improve the health of nursing-age pups. Mike Burke and I used parasite-free bitches from Laboratory Research Enterprises, Kalamazoo, Michigan. Separate groups of bitches were infected with a single administration of 6,000 larvated ascarid eggs *per os* and 2,500 to 5,000 hookworm larvae SQ, either 2 to 4 months before breeding, at midpregnancy, or at parturition. Pups born to these bitches were immediately taken at birth so that there was no chance to nurse their natural mother, transferred onto a parasite-free surrogate bitch to nurse for 4 weeks, then necropsied to recover and quantitate prenatally acquired worms. The parasite-free bitches had been bred to whelp simultaneously with infected bitches. Pups born to the parasite-free bitches were transferred to the infected bitches to nurse for 4 weeks, after which they were necropsied to recover and quantitate lactationally acquired worms. None of the 40 pups born to infected bitches in these three experiments harbored hookworms; only pups that nursed infected bitches acquired this parasite. Thus, 100% of the *A. caninum* transmission in these studies was lactational. A higher percentage (22%) of the infective dose of hookworms was transmitted to pups lactationally by bitches infected before breeding, as compared with those infected at

midpregnancy (3.1% of infective dose) or at parturition (3.3%).

Toxocara canis transmission was predominately prenatal. Among 25 pups born to 5 bitches that were infected before breeding, 98.3% of ascarid transmission was prenatal (avg., 26.8 worms/pup); 1.7% was via the milk. Delaying the infection of bitches with ascarid eggs enhanced somewhat the numbers of *T. canis* that passed to pups through the milk — 4.5% for midpregnancy infection and 7.9% (based on infective dose) for infection made at parturition, when prenatal infection of pups was denied. Ascarids seem to take every opportunity possible to infect pups (Burke and Roberson, 1985, Intern. J. Parasit., 15(1): 71-75 and 15(5): 485-490).

We also quantitated the lactational transmission of these parasites on a weekly basis. Two bitches were infected on day 35 of pregnancy with 10,000 *T. canis* eggs *per os* and 10,000 *A. caninum* larvae SQ. Pups born to these bitches were taken away at birth. Four pups born to 1 of 10 parasite-free bitches were allowed to nurse an infected bitch for one week, then removed and nursed by a parasite-free bitch for an additional 4 weeks so that milk-transmitted larvae could grow to adult worms before necropsy. Each infected bitch nursed a different group of 3 or 4 parasite-free pups each of 5 weeks of lactation. The average number of ascarids transmitted via milk to each pup each of weeks 1 to 5 was 8.8, 12.9, 8.1, 2.4, and 1.6, respectively. The numbers of ascarids transmitted were similar during the first 3 weeks of lactation, then declined rapidly in weeks 4 and 5. The average number of hookworms transmitted via milk to each pup during weeks 1 to 5 was 48.1, 12.9, 9.0, 6.6, and 0.8, respectively. The bulk of the transmission (62%) occurred during the first week, 78.8% by 2 weeks of nursing.

The fact that young pups are born with > 90% of the ascarid burden and, after nursing 2 weeks, will have acquired approximately 80% of their hookworm burden from an infected mother, prompted us to think in terms of early treatment of nursing pups at 2 weeks of age and at 2-week intervals thereafter until 8 weeks old. Peter Schantz, of the Centers for Disease Control, and we promoted this regimen of treatment to veterinary practitioners, both to improve the health of young pups and to reduce the environmental contamination with eggs of these parasites of public health significance, since hookworms can be patent in pups as early as 3 weeks of age and ascarids at 4 weeks of age. No anthelmintics were marketed at the time for pups less than 6 weeks of age. We separately tested 2 compounds — fenbendazole suspension at 50 mg/kg each of 3 consecutive days and pyrantel pamoate (Nemex - 2) at 10 mg/kg for one day. Each was administered orally by syringe to respective litters of pups when pups were 2, 4, 6, and 8 weeks of age. Weekly fecal exams during the period of 4 treatments and for 6 additional weeks after treatment ended were consistently negative for eggs of hookworms and ascarids.

We also investigated treating pregnant bitches in an effort to prevent or reduce transmission of ascarid and hookworm larvae to the pups. Since there already was suggestion of larvacidal activity by fenbendazole, we used this drug at 50 mg/kg daily for 37 consecutive days (40th of pregnancy through 14 days postpartum = Long-Term Tx Gp). The 37-day treatment was effective in reducing worm burdens of pups (from 7 bitches so treated) by > 89.5% for ascarids and > 98.5% for hookworms. Control pups from nontreated bitches harbored heavy burdens of worms — avg., 152.2 ascarids and 56.4 hookworms per pup — and were significantly reduced in weight compared with pups from long-term-treated bitches. The 23-day regimen of treatment was reasonably effective in reducing hookworm burdens in pups by 88.2%, but unsatisfactory in reducing ascarid burdens (63.7%).

Since somatic stages of hookworms and ascarids in bitches are known to infect at least 3 consecutive litters of pups, even when the bitch is denied further exposure to infective stages, we rebred several bitches from each of the three above groups to determine if the initial treatment with

fenbendazole had any long-range benefit, i.e., was larvacidal to somatic stages. There was beneficial effect against hookworm larvae, in that second-litter pups from bitches that were initially on the Long-Term treatment had 85% fewer hookworms than controls. Second-litter pups from short-term-treated dogs had only 40% fewer hookworms than controls. There was no evidence of larvacidal activity of fenbendazole for somatic ascarids, however, in that second-litter pups from nontreated control, long-term-treated, and short-term-treated bitches all harbored similar high ascarid burdens (~ 111 worms/pup) (Burke and Roberson, 1983, JAVMA, 83(9): 987-990). The encystment of somatic ascarid larvae may provide some protection for this parasite, while hookworm larvae, which do not encyst, are more susceptible to tissue levels of absorbed fenbendazole.

Over the years, a large number of practitioners have reported to me their successful treatment of bitches with fenbendazole (37-day regimen) or treatment of individual pups at 2, 4, 6, and 8 weeks of age. These were usually cases where a client's dog had lost an earlier litter to parasites and the client was seeking veterinary help to prevent loss of a subsequent litter. I don't know how much these regimens are used in the field today. Practitioners subjectively report seeing fewer severe hookworm and ascarid burdens in pups today. This is likely, in part, due to the expanding use of heartworm preventatives, which also control intestinal parasites.

I feel guilty for creating so many little pot-bellied, anemic pups in these studies, but they have given us very worthwhile data to help improve the overall health of puppies today. Since retiring, I'm no longer in the business of raising beagle puppies. The only pup I'm trying to help raise today is this little 3 1/2-year-old grandson, seen sitting here on my lap. It's my job to keep him dewormed! Probably, his mother was parasite-free, anyway!

Thank you, Sid Ewing, for nominating me for this award. Thank you, Rob Rew and Pfizer, for the very nice financial support for this award. Thank you, AAVP members. Many of you have served as officers or committee members to help grow this organization to what it is today. All of us are especially indebted to those individuals who have served as Secretary/Treasurer — Dan Snyder, Tom Kennedy, Vesalius Theodorides, Bud Folz, Terry Hayes, and Ruel Bell. Thank you, Dr. Roncalli, for pulling the history of AAVP together. Thirty years ago, we would be having the social tonight in someone's bedroom, probably mine! We've come a long way since then. Again, I'm very honored, and thank the association for this very nice award.

2000 AAVP Awards

The AAVP awards committee selected the following individuals for awards in 2000. These awards were presented at the annual meeting of the AAVP in Salt Lake City, Utah.

AAVP-Intervet Graduate Student Award (sponsored by Intervet): The AAVP-Intervet Graduate Student Award recipient is Sheila Abner, graduate student at Michigan State University.

Dr. Rob Rew (left), President AAVP, and Dr. Joan Lunney (right), Chair of the AAVP Awards Committee, present the AAVP-Intervet Graduate Student Award (sponsored by Intervet) to Dr. Sheila Abner (center) from Michigan State University. Recently, Sheila was awarded the Ph.D. degree for her work on antimicrobial substances produced by nematodes.

AAVP-Intervet Graduate Student Award winner Dr. Sheila Abner (left) with her mentor Linda S. Mansfield (right).

Bayer Best Student Paper Award Recipients

Congratulations to Annette Njue, Institute of Parasitology, McGill University for her first place presentation on "Cloning a Glutamate-Gated Chloride Channel Gene Fragment from the Cattle Nematode, *Cooperia oncophora*." And to Jacqueline Hoevers, College of Veterinary Medicine at Texas A&M University for her second place presentation on "Phylogenetic Analysis of *Blastocystis spp*. from Animal Hosts." Bayer provided cash awards for these presentations. In addition, because there were so many excellent student presentations at this year's meeting, three students were awarded Honorable Mention, Jennifer Johnson, Louisiana State University, Luis Jauregui, University Buenos Aires, and Brenda Ralston, University Calgary. Thanks to the AAVP Student Presentation Judges: Drs. Alvin Gajadhar, Jacqueline Hoevers, Craig Reinemeyer, Karen Snowden, Sandra Johnson, and Joan Lunney.

Dr. Joan Lunney (left), Chair of the AAVP Awards Committee, and Dr. Tom Kennedy (right), President of the AAVP, present the Bayer Best Student Paper Awards (sponsored by Bayer) to Annete Njue (left center) from McGill University, and Jacqueline Hoevers (right center) from Texas A&M University.

Student Travel Grants

11 AAVP travel grants were awarded for the 2000 meeting. The recipients were Alex Baudena, Louisiana State University; Andy Cheadle, University of Florida; Jacqueline Hoevers, Texas A&M University; Luis Jauregui, University Buenos Aires; Jenifer Johnson, Louisiana State University; Edmond Kabagambe, Louisiana State University; Satomi Kato, Cornell University; Keith Mertz, South Dakota State University; Annette Njue, McGill University; Maria Pena, Louisiana State University; and Alexa Rosypals, Virginia Tech.

Recipients of AAVP 2000 Travel Awards are (from left to right) Luis Jauregui, Satomi Kato, Annette Njue, Alex Baudena, Maria Pena, Jacqueline Hoevers, Edmond Kabagambe, Jenifer Johnson, and Alexa Rosypals. Andy Cheadle and Keith Mertz were not available for the photograph.

Lindsay Gets Henry Baldwin Ward Medal

David S. Lindsay, Associate Professor, Center for Molecular Medicine and Infectious Diseases, Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech, Blacksburg, Virginia was presented with the Henry Baldwin Ward medal by the American Society of Parasitologists at their annual meeting in San Juan, Puerto Rico.

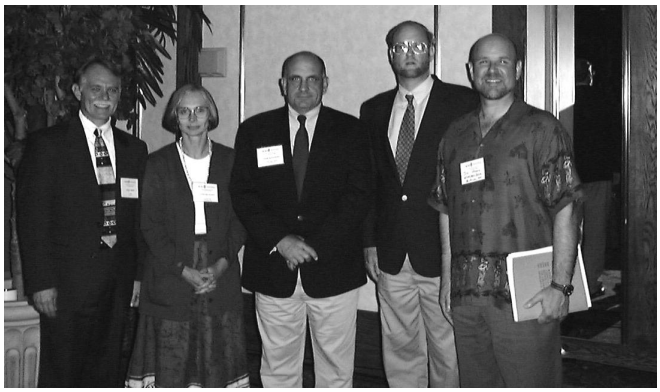
Mansfield gets Pfizer Award for Research Excellence

Linda S. Mansfield, Associate Professor, Department of Microbiology and Molecular Genetics, Michigan State University was presented with the Pfizer Award for Research Excellence by Pfizer Inc at the recent MSU College of Veterinary Medicine awards ceremony. This award recognized achievements in research projects aimed at understanding the interaction of whipworms and bacteria in producing severe disease in the gastrointestinal tract of swine. □

Committee Reports

Current AAVP Officers

Based on the results of elections, the current Officers of AAVP for 2000-2001 are as follows: President- Dr. Tom Kennedy, Bayer Animal Health, 9009 W. 67th Street, Merriam, KS; President-Elect- Dr. Anne M. Zajac, Virginia Tech, Blacksburg, VA 24061; Vice-President and Program Chair- Dr. Joe Urban, USDA, ARS, Beltsville, MD; Secretary/Treasurer-Dr. Dan Snyder, Elanco Animal Health, Box 708, Greenfield, IN; and Past President- Dr. Robert Rew, Pfizer, Inc., 812 Springdale, Exton, PA.



The officers for 2000-2001 are (from left to right) Dr. Rob Rew (Past-President), Dr. Anne Zajac (President-Elect), Dr. Tom Kennedy (President), Dr. Daniel Snyder (Secretary-Treasurer), and Dr. Joe Urban (Vice President Chair).

Dr. Rob Rew (left), President of AAVP for 1999-2000 receives a plaque of recognition for his efforts from the current AAVP President for 2000-2001 Dr. Tom Kennedy (right).

List of AAVP committees

The new list of AAVP committees for 2000-2001 is as follows. The Nominations and Program Committee are elected positions. Addresses and phone numbers are available in the Directory/Annual Meeting program. Archives-Mary Doscher; Awards-Joan Lunney; Constitution/Bylaws-Tom Letonja; Education-Cliff Monahan; Finance-Jimmy Williams; Newsletter/Editorial Board-Linda Mansfield; Outreach/Research-Alvin Gajahar; Publications-Bert Stromberg; Internet-Terry Skogerboe; and Student Awards-Joan Lunney. *Submitted by Dr. Tom Kennedy.*

Alexa C. Rosypal Graduate Student Representative AAVP

Alexa C. Rosypal, graduate student in Parasitology, Department of Biomedical Sciences and Pathobiology, Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech, Blacksburg, Virginia was elected the Graduate Student representative to the American Association of Veterinary Parasitologists at our recent annual meeting in Salt Lake City, Utah. □

Positions Available

Director, Institute of Parasitology, McGill University

The Institute of Parasitology of McGill University is seeking to appoint a new Director upon completion of the appointment of the current Director, Professor Roger Prichard, June 1, 2001. The appointment will be at a senior academic level and the appointee will be expected to have established an international reputation for cutting edge research in parasitology, have a track record for obtaining research support and have high potential for academic leadership during a period of exciting expansion of the University's research activities in infectious diseases, the biology of pathogens and the development of strong graduate programs oriented to the rapidly developing biotechnology sector. Currently the Institute of Parasitology has eight research groups primarily involved in the molecular biology, genetics, pharmacology, immunology, and epidemiology and population biology of protozoan and helminth infections of humans and animals. Complementary projects on bacterial and viral infections and on cancer cells also are followed at the Institute. There is potential for further expansion of the academic staff of the Institute. The Institute has been an FCAR Centre of Excellence for the past 26 years. The Institute of Parasitology has Ph.D. and M.Sc. research degrees based on the research themes indicated above. It also leads a multi-Faculty initiative in postgraduate training in biotechnology and has strong links with microbiologists in the Faculty of Agricultural and Environmental Sciences and the Department of Microbiology and Immunology in the Faculty of Medicine. The Institute does not offer undergraduate programs, but members of the Institute participate in limited undergraduate teaching in other Departments and the Institute staff are active in the McGill School of the Environment. A successful applicant may be nominated for a Canada Research Chair.

Applicants should include a full curriculum vitae including a complete list of publications, a statement of research interests, an indication of priorities as a future Director of the Institute of Parasitology, and the names and contact addresses of at least three individuals who have agreed to provide letters of reference. Applications should be addressed to: Director, Institute of Parasitology, McGill University, Macdonald Campus, 21, 111 Lakeshore Road, Ste-Anne-de-Bellevue, Quebec, Canada, H9X 3V9, Canada. The deadline for applications is November 15, 2000. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. McGill University is committed to equity in employment. For further information on the Institute of Parasitology and requirements for the position consult http://parasitology.mcgill.ca or contact Dr. Roger Prichard, Director, at rprich@po-box.mcgill.ca; Fax: (514) 398 7857; Tel.: (514) 398 7722.

Two ARS National Program Leaders Positions are now Available

Position #1 - ARS National Program Leader for Animal Health. This position is open until Nov.18, 2000. It requires a DVM or equivalent. Information is available at the following website: http://www.ars.usda.gov/afm/hrd/vacancy/X0E-4124.htm.

Position #2 - ARS National Program Leader (Veterinary & Medical Entomology), Entomologist/Veterinary Medical Officer. This position is open until Dec.15, 2000. It requires a DVM or equivalent or entomology expertise. Information is available at the following website: http://www.ars.usda.gov/afm/hrd/vacancy/X0E-4125.htm.

Please encourage your colleagues to consider these important ARS positions. *Submitted by Joan K. Lunney, Ph.D.,* Research Leader, Immunology and Disease Resistance Laboratory, LPSI, ARS, USDA, Building 1040, Room 107, Beltsville, MD 20705 USA, PH: 301-504-8201 or –9368, FAX: 301-504-5306, email: jlunney@lpsi.barc.usda.gov, website: http://www.lpsi.barc.usda.gov/.

Head, Department of Medical Microbiology and Parasitology

The University of Georgia College of Veterinary Medicine invites applications for the position of Professor and Head of the Department of Medical Microbiology and Parasitology. The successful candidate will have an outstanding scientific background with an established record of extramural support in the area of microbial pathogenesis, molecular biology of viral, bacterial or parasitic pathogens, or mechanisms of immunity. Additional qualifications include demonstrated leadership ability, evidence of commitment to teaching excellence, and an understanding of the service mission of the department. Applications received by November 15, 2000 are assured full consideration. Interested candidates should forward letter of intent, curriculum vitae and the names of three references to: Thomas F. Murray, Ph.D., Chair, Search Committee, Department of Physiology and Pharmacology, College of Veterinary Medicine, The University of Georgia, Athens, GA 30602-7389. The University of Georgia is an equal Employment Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

Invertebrate Biologist

A tenure-track, Assistant Professor position beginning August 2001 at Eastern Illinois University is advertised. Research areas are open but special consideration will be given to individuals working in biomonitoring, or with organisms economically important in agro-ecosystems. The individual may teach courses in Animal Diversity, Invertebrate Biology, Biostatistics and an upper level/graduate course in the area of his/her specialty. The successful candidate must have a strong commitment to undergraduate education and will be expected to establish a research program involving undergraduate and M.S. students. Applications should include C.V., copies of transcripts and reprints, three letters of reference, and statements of teaching and research interest. Review of all materials will begin Dec. 15, 2000 and will continue until filled. Send materials to Dr. Paul Switzer, Department of Biological Sciences, Eastern Illinois University, 600 Lincoln Avenue, Charleston, IL 61920. For more details contact search chair (e-mail = cfpvs@eiu.edu) or visit website at www.eiu.edu/~biology. Eastern Illinois University is an Equal Opportunity/Equal Access/Affirmative Action Employer committed to achieving a diverse community.

Graduate Training in Cellular and Molecular Parasitology, University of Wisconsin-Madison

The Center for Research and Training in Parasitic Diseases at the University of Wisconsin at Madison announces the availability of pre-doctoral fellowships starting Spring 2001. Funding is through a NIH-funded training grant in the area of cellular and molecular parasitology. This program offers a variety of course and seminar offerings in advanced parasitology, and exciting opportunities for research training in immunoparasitology, molecular parasitology, vector biology, and parasite biochemistry, neurobiology and physiology. For more information regarding graduate training opportunities at the University of Wisconsin, visit our website at http://www.vetmed.wisc.edu/pbs/cmp or contact Tim Yoshino, Director, Cellular and Molecular Parasitology Training Program, Department of Pathobiological Sciences, University of Wisconsin, 2115 Observatory Drive (Biotron), Madison, WI 53706-1087; Email address - yoshinot@svm.vetmed. wisc.edu. Applicants must be a U.S. citizen or permanent resident to be eligible for fellowship support.

Postdoctoral Fellow (Fixed Term for 3 years), University of Otago, Dunedin, New Zealand

Applications are invited from suitably qualified persons for the position of Postdoctoral Fellow in the Departments of Zoology and Biochemistry, University of Otago, Dunedin, New Zealand. This position in the laboratories of Dr David A. Wharton (Zoology) and Dr. Craig Marshall (Biochemistry), is funded by the Marsden Fund and is available for three years. Associate investigators on the project are Dr. Hans Ramløv, Roskilde University, Denmark and Prof. John Barrett of the University of Wales.

The research project entitled "Ice active compounds and the survival of intracellular freezing in an Antarctic nematode" will involve the isolation and sequencing of a protein which is involved in the ability of an Antarctic nematode to survive intracellular freezing and the investigation of its properties and evolution. The appointee will have experience in protein purification and molecular biology techniques. We wish to fill this position by February 2001. Applicants must have been awarded the degree of Doctor of Philosophy before taking up this position. The salary for Postdoctoral Fellows is NZ$46,350 per annum (rates effective 1 February 2001). Further details regarding this position, the University and the application procedure are available from the Deputy Director, Personnel Services, University of Otago, PO Box 56, Dunedin, New Zealand (Tel 64 3 479 8269, Fax 64 3 474 1607 or email shannon.oliver@stonebow.otago.ac.nz). Further information about the University of Otago can be found at our homepage at http://www.otago.ac.nz. Applicants should send two copies of their curriculum vitae together with the names, addresses and fax numbers of three referees, to the Deputy Director of Personnel Services by the specified closing date, quoting the appropriate reference number AG00/62. Equal opportunity in employment is University policy. Specific enquiries may be made to Dr David A. Wharton, Tel 64 3 479 7963, Fax 64 3 479 7584 or email david.wharton@stonebow.otago.ac.nz. □

Database Information

International Veterinary Information Service Website

As an active member of the IVIS organization, I am pleased to announce that the IVIS website is now available on-line at www.ivis.org/. The IVIS (International Veterinary Information Service) is a NY-based, not-for-profit organization created to provide clinically relevant, up-to-date information to veterinary practitioners, veterinary students, academic clinicians and researchers in the animal health care sector worldwide using the Internet. The IVIS website provides free access to original, electronic textbooks on a wide variety of veterinary topics. The IVIS publications aspire to the same high quality standards as veterinary textbooks currently available. Editors of e-book are carefully selected and all publications are written specifically for the IVIS website by contributing authors selected by the editor(s) of each book. Today, the IVIS Recent Advances in Veterinary Medicine library contains no less than 27 e-books.

It is our hope that you will find the IVIS content interesting and useful. One of the goals is that the IVIS website be used as a resource in the veterinary curriculum. The IVIS website can be consulted as often as needed free of cost and manuscripts can easily be printed using files specifically paginated for on-line color or black-and-white printing. IVIS was created by faculty members at several veterinary colleges and does not have a specific affiliation with a University or Veterinary College. IVIS receives its financial support through private, corporate and government sponsorship.

It is my pleasure to invite you to visit the IVIS website at www.ivis.org/. The IVIS project is a work-in-progress and we appreciate any comments or suggestions you may have. Please send you comments or questions to info@ivis.org .

Submitted by Irma Revah, DVM MPVM PhD.
International Veterinary Information Service (IVIS), P.O. Box 4371, Ithaca NY 14852, USA, email: info@ivis.org - Website: www.ivis.org/

IVIS is a New York-based, not-for-profit organization dedicated to provide up-to-date, clinical information to veterinarians, veterinary students and animal health professionals worldwide using Internet technologies.

Amazing website

A friend of mine alerted me to the work of Dr. Dennis Kunkel at the University of Hawaii. Dr. Kunkel does scanning electron microscopy (computer colors) on microbes and assembles these images into texts for teaching. He is very artistic and takes great photos. Please see his Web site at http://www.pbrc.hawaii.edu/~kunkel/. *Submitted by Linda Mansfield.*

Microbial Genomics Update

The Interagency Report on the Federal Investment in Microbial Genomics (nsf00203) is now available from the NSF Online Document System at http://www.nsf.gov/cgi-bin/getpub?nsf00203. The report summarizes the efforts of various Federal agencies in microbial genome sequencing. You also may be interested in the table and web sites listed in the Appendices. □

Future Meetings

1st Announcement, Society of Protozoologists VII International Workshops on Opportunistic Protists

This is the 1st announcement for the Society of Protozoologists VII International Workshops on Opportunistic Protists With Emphasis on Immunodeficiency-Dependent Diseases (IDD) Caused by Amoebae, Cryptosporidium, Microsporidia, Pneumocystis, and Toxoplasma. The 7th International Workshop on Opportunistic Protists is being planned for June 13 - 16, 2001. A reception and registration is scheduled for the evening of June 13th. Scientific sessions will take place from the morning of June 14th until June 16, 2001. The meeting site will be the Kingsgate Hotel and Conference Center on the University of Cincinnati campus (run by the Marriott Hotels). The following have agreed to help organize the 2001 workshops: Edna Kaneshiro (University of Cincinnati); James Beck (University of Michigan); Gaylen Bradley (Pennsylvania State College of Medicine); Melanie Cushion (University of Cincinnati); David Lindsay (Virginia Tech); Francine Marciano-Cabral (Medical College of Virginia); Jan Mead (Emory University); and Louis Weiss (Albert Einstein College of Medicine).

You are invited to join the Society of Protozoologists. As a member you will receive, among other benefits, The Journal of Eukaryotic Microbiology (which publishes short communication proceedings resulting from these workshops), and publication of four pages without charges per year (applicable to one publication per year). For more information, please see the website: http://www.uga.edu/protozoa. *Submitted by David S. Lindsay, PhD*, Center for Molecular Medicine and Infectious Diseases, Department of Biomedical Sciences and Pathobiology, Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech, 1410 Prices Fork Road Blacksburg, Virginia 24061-0342, PH:540-231-6302, Fax:540-231-3426.

10th International Congress of Parasitology, ICOPA X

This is the first announcement for the10th International Congress of Parasitology, ICOPA X, Parasitology in the New World. The meeting will be held August 4 to 10, 2002 in Vancouver, Canada. ICOPA X is sponsored by the Canadian Society of Zoologists (Parasitology Section) and the American Society of Parasitologists. For further information please contact ICOPA X, Conference Secretariat, Venue West Conference Services Ltd., #645-375 Water Street, Vancouver, B.C. Canada V6B 5C6. □

Future Meetings of the AAVP

Future AAVP meetings:

2001 Boston, MA 14-18 July
2002 Nashville, TN 13-17 July
2002 Denver, CO 19-23, July

AMERICAN ASSOCIATION OF VETERINARY PARASITOLOGISTS

MEMBERSHIP APPLICATION

2001 MEMBERSHIP RENEWAL

Please use this form for the payment of dues to the AAVP for the year 2001 membership period. The 2001 dues year runs from September 1, 2000 to August 31, 2001. Please complete the form with any updated information and return it to me at the address below. Please pay your dues promptly. The success of the AAVP is at least in part dependent on fiscal survival.

PLEASE PRINT

Name_____
Last First MI

Institution/Business Affiliation_____

Address_____

_____

City_____**State**_____**ZIP**_____

Telephone No._____**Fax No.**_____

e-mail address_____

Dues: $20.00 ($10.00 for students) in U.S. Funds and drawn on a U.S. bank. Make check payable to the American Association of Veterinary Parasitologists (AAVP). Please do not make the check out in the name of the secretary-treasurer.

Return to:

Dr. Daniel E. Snyder, Secretary/ Treasurer
American Association of Veterinary Parasitologists
Mail Drop GL18
P.O. Box 708
Greenfield, IN 46140 USA
phone: 317/277-4439
fax: 317/277-4532
email: snyder_daniel_e@Lilly.com

AMERICAN ASSOCIATION OF VETERINARY PARASITOLOGISTS (AAVP)
FOUNDED 1956
AFFILIATED WITH THE AMERICAN VETERINARY MEDICAL ASSOCIATION

The objectives of the AAVP and its requirements for membership (Articles II and III of the AAVP Constitution) are:

Objectives: "The objectives of the organization shall be to provide for the association of persons interested in the advancement of veterinary parasitology, and for the presentation and discussion of items of common interest, and to further scientific progress by education and research in veterinary parasitology. This association is organized exclusively for scientific and educational purposes within the meaning of section 501(C)(3) of the Internal Revenue Code. Notwithstanding any other provision of this constitution, the Association shall not carry out any other activities not permitted to be carried out by an organization exempt from Federal Income Tax under section 501(C)(3) of the Internal Revenue Code."

Membership: "Section 1: Members shall consist of those individuals qualified by background, education and interest in veterinary parasitology. Section 2: New members, except honorary and emeritus, shall be admitted by the Secretary-Treasurer with approval of the Executive Committee, after filing application for membership to the association. Section 3: Honorary membership shall be awarded by the Association to persons who are not members of the Association in recognition of outstanding and sustained achievements in veterinary parasitology. Candidates for honorary membership shall be recommended to the awards committee by any member. Nomination for honorary membership shall be made by the Awards Committee to the membership and election shall be majority vote at the annual meeting. Honorary members shall not be eligible to vote and shall not be assessed dues. No more than two (2) honorary members shall be elected in any one year period. Section 4: Upon retirement a member may become an emeritus member on approval of the Executive Committee of a written request to the Secretary-Treasurer for such status. Emeritus members shall retain voting rights but shall not be assessed dues. Section 5: Forfeiture of membership will occur where dues are not paid for at least two consecutive years. A member who has forfeited membership by nonpayment of dues must reapply for membership. Section 6: Expulsion of a member may occur if a motion for expulsion is presented by the Executive Committee at the annual meeting and passed by four-fifths (4/5) of the members present and voting. The member is to be informed in writing of such a motion at least two months in advance of the annual meeting at which the motion is to be presented. Section 7: The Executive Committee may annually invite any firm, association, corporation, institution or subdivision thereof, to become a corporate associate member, for financial support of the Association."

Should you wish to become a member of the AAVP, please provide the following information and send this form and a check (regular membership $20.00, student membership $10.00, U.S. currency) payable to the AAVP, to the Secretary-Treasurer at the address given below. **The 2001 dues year runs from September 1, 2000 to August 31, 2001.**

Name and Academic Degree (s) _____ Institutional/Business Affiliation _____

Mailing Address (Office/Lab) _____ Title _____

Phone Number _____ Fax Number _____ Email Address _____

2000-2001 OFFICERS

PRESIDENT
Dr. Tom Kennedy
Bayer Animal Health
9009 W. 67th St.
Merriam, KS 66202
(913) 962-2890

PRESIDENT ELECT
Dr. Anne M. Zajac
VA/MD Reg. College Vet. Med
Virgina Tech
Blacksburg, VA 24061
(540) 231-7017

IMMEDIATE PAST-PRESIDENT
Dr. Rob Rew
Pfizer Animal Health
812 Springdale
Exton, PA 19341
(610) 363-3143

SECRETARY-TREASURER
Dr. Daniel E. Snyder
c/o Elanco Animal Health
Mail Drop GL18
PO Box 708
Greenfield, IN 46140
(317)277-4439; Fax (317) 277-4532
email: Snyder_Daniel_E@Lilly.com

VICE-PRESIDENT
Dr. Joseph Urban, Jr.
USDA, ARS, LPSI, IDRL
Bldg. 1040 BARC-East
Beltsville, MD 20705
301 504-8765

The American Association of Veterinary Parasitologists

Editor: Linda S. Mansfield
B43 Food Safety Toxicology Building
Department of Microbiology
Michigan State University
East Lansing, Michigan 48824-1314
Phone: 517-432-6309
FAX: 517-432-2310
E-mail: mansfie4@cvm.msu.edu

Editorial Board: Sara E. Green, Merial Limited
John E. Holste, Merial Limited
Susan E. Little, University of Georgia
Sara E. Marley, Pfizer Inc
John J. Melancon, Merial Limited

The American Association of Veterinary Parasitologists Newsletter is published three times each year with issues in February, June and October. Contributions to the Newsletter are welcome and should be submitted by the 20th of the month prior to each date of issue.

AAVP Newsletter Deadlines for Submissions

Newsletter	Deadline
February, 2000	January 20, 2000
June, 2000	May 20, 2000
October, 2000	September 20, 2000

Please contact the editor with questions regarding these dates.