

STUDENTS TOUT WORKSHOP AS HOT STUFF

This year's student workshop to be held at the ASP/SON meeting in Monterey, California, July 6-9, 1999, is jointly planned by ASP and SON student members, and will include four speakers. The theme for the Workshop this year is "The Potential Influence of Global Environmental Changes on Infectious Disease Transmission" and will include talks on various aspects of infectious disease transmission in relation to global environmental influence. An interesting array of topics will be discussed by a variety of speakers, and will include how global warming has affected host-parasite or disease-transmission relationships and how increases in rodent or insect populations has affected the dynamics of certain diseases. We hope everyone will participate in this timely workshop.

UPCOMING ASP MEETING IN MONTEREY PROMISES TO BE AN EXCELLENT ADVENTURE

The 74th annual meeting of the American Society of Parasitologists is being held jointly with the Society of Nematologists July 6-9, 1999 at the Monterey Marriott Hotel in Monterey, California. ASP Council meeting will be held Tuesday morning, July 6, followed by afternoon paper sessions on: Detection, Diagnosis and Regulation; Taxonomy, Systematics, Phylogeny, Morphology and Ultrastructure; and Immunology. The ASP/SON Student Workshop will take place late Tuesday afternoon and will focus on "The Influence of Global Environmental Changes on Infectious Disease Transmission." Lectures will be presented in the workshop by M.W. Lecker, University of Texas at El Paso ("Mechanisms of Iron Uptake, Utilization and Intracellular Distribution by *Trichomonas vaginalis*"); W.K. Reisen, School of Veterinary Medicine, University of California-Davis ("Potential Impact of Global Warming on the Epidemiology of Mosquito-borne Encephalitis Viruses in California"); and C.H. Calisher, J.J. Root and B.J. Beaty, College of Veterinary Medicine and Biomedical Sciences, Colorado State University ("Longitudinal Studies of Hantaviruses in Colorado, 1994-1999: Natural History of Virus and Rodent Population Fluctuations"). A joint ASP/SON welcome reception will be held in the Monterey Bay Aquarium on Tuesday evening.

Wednesday morning activities will begin with the ASP President's Symposium with the theme "Parasite-Insect Interactions". P.T. Lo Verde will preside over the symposium which includes presentations titled: "Host-Parasite Relationships in the Tobacco Horn Worm" by M. Beckage, Department of Entomology, University of California - Riverside; "Mediators of Cellular Encapsulation by Insects: Potential Targets for Disruption by Parasites" by M.R. Strand, Department of Entomology, University of Wisconsin; and "Reductive and Proliferative Evolution in PolyDNA Virus Genomes: A Model for Parasite Genome Evolution." Also held Wednesday morning will be a Symposium on Genetics and Genomic Approaches to Studying Parasitism featuring the theme "Exploiting Genomics for Parasitic Nematodes." The symposium will be presided over by D. Bird, and will include three presentations entitled "Sequence-Based Approaches to Exon Identification in *Caenorhabditis elegans*" (M. Marra et al., presenting); "*Brugia malayi* and *Caenorhabditis*: A Tale of Two Genomes" (D. Guiliano et al., presenting); and "*Heterodera* Glycines: Life Cycle, the Genome and Everything" (C.H. Opperman,

presenting). Late morning and afternoon of Wednesday will be occupied with paper sessions focusing on: Host-Parasite Interactions; Management; and Genetics. A late afternoon Regulatory Symposium will be presided over by R.W. Hackney and will feature talks by R.W. Hackney of the California Department of Food and Agriculture (“Identifying Nematodes: Quarantine, Phytosanitary Requirements and Regulations”); R.J. Lipshutz of Affymetrix, Inc, Sacramento, CA (Genes, Chips and Genomes”); and A.A. Kocan, Department of Infectious Diseases, Oklahoma State University, Stillwater, OK (“Diagnosis and Testing of Captive Cervids for Meningeal Worms”). Sessions held late Wednesday afternoon will incorporate papers dealing with Life Cycles and Epidemiology; Management; and Molecular, Developmental and Cell Biology. A Host-Parasite Relations Symposium will be held late Wednesday afternoon (H. Melakeberhan, Michigan State University presiding) and will include talks on “Concepts of Host -Parasite Interactions in Nematode Infections” (C. MacKenzie, Michigan State University), “The Role of Serine Proteases in Skin Invasion by Schistosome Cercariae” (J.H. McKerrow et al., University of California-SF), “Entomogenous and Entomopathogenic Nematodes: Their Role in the Insect World” (H.K. Kaya, University of California-Davis), and “Nematode Parasitism of Plants” (R.S. Hussey, Michigan State University). The 11th Annual ASP Auction will be held Wednesday evening. Proceeds from the auction support student travel to ASP meetings and the auction is always a lot of fun.

Thursday morning opens with the SON Student Papers session, a Nematode Evolution Symposium with S.A. Nadler and J.G. Baldwin presiding. The Nematode Evolution Symposium features talks by J.R. Garey, University of South Florida (“The Phylogenetic Relationship of Nematodes to Other Metazoan Phyla”); W.K. Thomas et al., University of Missouri-Kansas City (“Phylogenetic Relationships Among Nematodes: Evidence From Multiple Loci”); M.S. Blouin, Oregon State University (“Nematode MTDNA: Molecular Evolution and Use in Population Genetics”); B.J. Adams, University of California-Davis (The Species Delimitation Uncertainty Principle: On the Dichotomy Between Non-Operational and Operational Species Definitions”); E.P. Hoberg, USDA (“Nematode Phylogeny and Comparative Morphology: Lessons on the Evolution of Structure”); and D.H.A. Fitch, New York University (“Evolution of Rhaditidae and the Male Tail”). Thursday morning will also witness the ASP Coccidiosis Conference with H. Profous-Jouchelka of Merck and Co. presiding. This conference will focus on the following topics: “Plant-Like Metabolic Pathways Comprise Novel Antimicrobial Agent Targets in Pathogenic Apicomplexan Parasites” (R. McLeod et al., University of Chicago); “Targeting and Function of *Toxoplasma gondii* Organelles in Living Parasites” (B. Striepen et al., University of Pennsylvania) Growth of *Toxoplasma gondii* is Inhibited by Aryloxyphenoxy Propionate Herbicides Targeting Acetyl-CoA Carboxylase” (P. Gornicki et al., University of Chicago); and “Apiciden-Sensitive Histone Deacetylase from *Plasmodium falciparum*: Molecular Characterization of a Novel Chemotherapeutic Target” (P. Liberator et al., Merck Research Laboratories). A paper session on Biochemistry and Physiology is also scheduled for Thursday morning. The second SON Student Paper Session will be held Thursday afternoon, along with sessions on Biological Control; Ecology; Host-Parasite Interactions (#2); and Resistance. The SON Business Meeting, ASP Awards ceremony and Business Meeting, followed by the SON Banquet will take place Thursday evening.

The ASP President’s Address will be presided over by G.A. Schad and presented by L.S. Roberts (ASP President; “The Cure for All Diseases”) Friday morning, along with a paper session on Entomopathogenic nematodes and one on Host-Parasite Interactions (#3), a Computer

Technology Workshop, and the Eminent Parasitologist Address will be held. A paper session on Taxonomy, Systematics, Phylogeny, Morphology and Ultrastructure (#2); the Mentor Award and H.B. Ward Medal Ceremonies; a Late Breakers Session; and the Poster Session (over 100 posters) will all be held on Friday afternoon.

MONTEREY: A LAND RICH IN ATTRACTIONS FOR ASP/SON MEMBERS

Henry Miller described the Monterey Peninsula as “A place of grandeur and eloquent silence.” It is world famous for its majestic beauty and magnificent coastline. The stunning landscape and colorful history have captivated explorers, visitors and residents alike for centuries. The unspoiled beauty and legacy of cultures, including Native American, Spanish and Mexican have inspired some to proclaim Monterey a “Mosaic of cultures.” There are many attractions in Monterey and on the Monterey Peninsula for those attending the ASP/SON meeting and accompanying family members. Fisherman’s Wharf, Cannery Row and many restaurants are within easy walking distance of the Marriott Hotel, site of the meeting.

Monterey Bay Aquarium

Located on Cannery Row and housed in the Row’s first cannery, the Monterey Bay Aquarium established a worldwide reputation within a few years of its opening in 1984. Focusing on the mysteries and wonders of the Monterey Bay, the aquarium contains more than 6,500 live creatures including a towering 3-story kelp forest, hands-on touch pools, a walk-through aviary, and the ever popular exhibit of playful sea otters. The new Outer Bay Wing, opened in March 1996, has increased the exhibit area by 50% and features a million gallon depiction of the open ocean.

Cannery Row

The heart of the thriving sardine industry in Monterey during the 1920s and ‘30s, is today a popular visitor area which includes, galleries, shops, wine-tasting rooms, a factory outlet center and specialty stores. Cannery Row was immortalized by Pulitzer Prize-winning novelist John Steinbeck in his works *Cannery Row* and *Sweet Thursday*.

Historic Landmarks/Culture

Monterey State Historic Park includes buildings that are some of the oldest and culturally significant structures on the West Coast. Professionally-guided daily walking tours are available to meeting attendees.

The Path of History

A self-guided walking tour takes visitors on a stroll through Monterey using landmark signs which identify historic sites and buildings, such as Colton Hall, now a museum and the site of the signing of California’s first constitution in 1849.

Museums

The Maritime Museum of Monterey, the Monterey Museum of Art and the Monterey Museum of Art at Mirada all feature the seafaring heritage of the area, California art, including works by Ansel Adams and Edward Weston, and magnificent gardens, and contemporary galleries showcasing California and Asian art.

Recreational/Leisure

The Monterey Recreation Trail is an oceanfront path popular with walkers, joggers, skaters and bicyclists. In addition, the countryside is traversed by miles of beautiful trails. Kid-pleasing activities include an afternoon at Dennis the Menace Playground, a unique park designed by Hank Ketcham; a ride on Cannery Row’s “Fastest Carousel in the World”; and on Fisherman’s

Wharf, an organ grinder and his monkey. The Monterey Peninsula is known as the “Golf Capital of the World.” There are 17 golf courses including Pebble Beach Course, the site of the annual AT&T Pebble Beach Pro-AM Championships, and the U.S. Open Golf Championship.

Big Sur

A 90-mile stretch of coastline that begins in Monterey County a few miles south of Carmel and ends at San Louis Obispo County at San Simeon (Hearst castle). Big Sur is well known around the world for its spectacular beauty. Bixby Bridge, a massive 174-ft bridge that spans Bixby Canyon, was completed in 1932 by prisoners. The Henry Miller Memorial Library is located in Big Sur and is approximately 31 miles south of Carmel.

Carmel-by-the-Sea/Carmel Valley

A village in a forest setting located above a breathtaking white-sand beach 5 miles south of Monterey. With its winding tree-lined streets, just over 50 inns, 60 restaurants and hundreds of unique boutiques and shops, is often likened to a quaint European village. More than 70 art galleries reflect the artistic heritage of Carmel-by-the-Sea. Twelve miles east of Carmel-by-the-Sea, Carmel Valley is situated in a pastoral setting of rolling ranch land, valleys, streams and forests. It offers wine-tasting, excellent recreational opportunities and more than 30 restaurants.

Marina

Located 8 miles north of Monterey, Marina is the gateway to the Monterey Peninsula. Situated in a coastal area with gently rolling hills, it is home to a unique state beach, beautiful parks and recreational facilities. Marina State Beach with its hang-glider launch pad, is exceedingly popular with the hang-gliding set. Several companies located at the Marina Airport offer exhilarating aerial recreation, including sail planes, skydiving, helicopter rides and more.

Weather

The Monterey Peninsula enjoys a unique weather pattern. In summer, early morning fog is prevalent. Average summer highs are 68EF. The pleasant climate allows for comfortable, light-to-medium-weight clothes year-round, whether the style is casual, elegant or business. Sweaters, jackets and coats are advisable.

*We look forward to welcoming you to Monterey
CALIFORNIA*

THE JOB MART

Predoctoral Positions in Cellular and Molecular Parasitology - The Center for Research and Training in Parasitic Diseases at the University of Wisconsin-Madison announces the availability of predoctoral fellowships for Fall 1999 through a NIH-funded training grant in the area of cellular and molecular parasitology. This program offers a variety of seminars and courses in basic and advanced parasitology, and exciting opportunities for training in immunoparasitology, molecular parasitology, vector biology, and parasite biochemistry, neurobiology and physiology. Other opportunities available include advanced training in medical parasitology through a cooperative agreement with the University of Puerto Rico Medical Sciences Campus. For further information visit our web site at <<http://www.vetmed.wisc.edu/pbs/cmp>> or contact: Dr. Timothy Yoshino, Director, CMP Training Program, Dept. of Pathobiological Sciences, University of Wisconsin, School of Vet Medicine, 2015 Linden Drive West, Madison, WI 53706. E-mail:<yoshinot@svm.vetmed.wisc.edu>. Applicants must be a U.S. citizen or permanent resident to be

considered. Applications from women and other minorities are especially welcome.

Two Research Positions in Europe - Two research positions are currently available in the Department of Parasitology and Tropical Veterinary Medicine, Utrecht University, Netherlands.

1. Genetic resistance in cattle to *Cooperia oncophora* infection - this project aims at identifying genomic regions involved in the regulation of immune-mediated resistance of calves to gastrointestinal nematodes. The MHC region and selected non-MHC regions will be analyzed using PCR-based techniques, combined with immunological and parasitological phenotyping of the host animals. Emphasis will be placed on those host individuals belonging to the minority harboring the majority of the parasite population (the most “wormy” individuals). Studies will begin on already collected material, and will extend to newborn calves later during the study. The identity of genomic regions contributing to high levels of infection will be verified in groups of selected calves.

2. Immune-mediated host responses to infection with gastrointestinal nematodes - this project will concentrate on the characterization of both humoral and cellular immune responses of the bovine host to infection with gastrointestinal nematodes, in particular *Cooperia oncophora* and possibly *Ostertagia ostertagi*. Since the excretory/secretory products of the parasite are thought to play an important role in protective immune responses mounted by the host, emphasis will be on responses directed towards these parasite molecules. Research will be carried out in close cooperation with the project on bovine genetic resistance to nematode infection. A second goal of this project is to identify species specific excretory/secretory products that can be used in immunoassays for screening for infection and for prognostic diagnoses. Appropriate products will be cloned and expressed using recombinant DNA technology. Such immunoassays will be an important aid in optimizing herd management and parasite control strategies.

Qualifications: MSc in medical biology, veterinary medicine or animal science. Experience in molecular biology/genetics (Project 1) or immunology (Project 2) is desired.

Position: A full-time position for a period of four years. Gross monthly salary: Dfl 2,195 in the first year, increasing to Dfl 3,919 in the final year.

Information: Further information can be obtained from Prof. Dr. A.W.C.A. Cornelissen (Tel. +31 30 253 2571; e-mail <a.cornelissen@vet.uu.nl>) or Dr. H.W. Ploeger (Tel. +31 30 253 2571; e-mail <h.ploeger@vet.uu.nl>). Applications should be sent to: Mrs. J. Kraak-Lutteke, Department of Personnel and Organization, Utrecht University, Yalelaan 1, 3584 CL Utrecht, Netherlands. Please refer to project title in your application.

This research program is funded by the Netherlands Organization for Applied Sciences, and will be carried out in cooperation with two companies, Holland Genetics and Diagnostic Products Corporation.

SEEKING COLLECTION MANAGER FOR U.S. NATIONAL PARASITE COLLECTION

The USDA Agricultural Research Service, Biosystematics and National Parasite Collection Unit, Beltsville, Maryland is seeking a museum curator (Zoologist; GS 7/9) for the U.S. National Parasite Collection. Duties include assessing and loaning specimens of protozoa, helminths and other invertebrate parasitic groups, maintaining and enhancing specimen record databases on the internet, developing on-line information systems such as identification and diagnostic guides, and developing exhibits and conducting tours of the collections. Candidates must have a degree in museum management; or a degree in Zoology plus knowledge of museum management; or a combination of education and experience equivalent to such a degree plus knowledge of computer systems for the development, maintenance and dissemination of a relational database information system. U.S. citizenship is required. Salary range is 27,508 - \$43,747. For information on the position contact Dr. J.R. Lichtenfels at <rlichten@lpsi.barc.usda.gov> . For a copy of the vacancy announcement or application packet: (301) 504-1484; or <<http://www.ars.usda.gov>>. Applications must be marked ARS-X9E-9265 and must be postmarked May 24, 1999. *USDA:ARS is an equal opportunity provider and employer.*

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PURDUE ISSUES PARASITOLOGY NEWS

Dennis Minchella (ASP member) was selected as one of the best teachers in the history of Purdue University, and was included in the *Purdue University Book of Great Teachers* (actually a new permanent wall display). Dennis had previously won both school and university-wide teaching awards.

Kathy Davidson was the first recipient of the Cable-Silkman Fellowship. This award, created by Dr. Robert Silkman in honor of his professor Dr. Ray Cable, provides a summer stipend for an undergraduate student conducting parasitology research.

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ODDBALL FROGS FREAK PROMED

The following ProMED-mail message was received by several ASP members. It calls for assistance from parasitologists and malacologists in understanding the possible role played by trematode infections in the sudden appearance of frog deformities worldwide.

FROG DEFORMITIES - WORLDWIDE (03): REQUEST FOR INFO

Tue, 4 May 1999 21:15:18 -0300

From: John Marr <jsmarr@javavet.com>, Curt Malloy <malloyc@exponet.com>

We consider frogs as a sensitive bio-indicator of the health (or lack thereof) of the environment. Recently the *Times* reported on a recent *Science* article by S.K. Sessions on the possibility that the fluke *Ribeiriola* (species not mentioned) may be responsible for the deformities in frogs being reported worldwide. Sessions has studied this phenomenon for over 10 years, and his experimental work with frogs and various schistosome-like flukes found in the U.S. is very exciting.

However, his knowledge of frog embryology and mutagenesis cannot be expected to include parasitology, malacology and zoology, i.e. the knowledge of U.S. (Much less worldwide)

distribution of zoonotic animal trematodes, their intermediate snail hosts and definitive avian and mammalian hosts. But we think he is close to “solving” the problem.

The challenge is identifying the definitive host(s) for *Ribeiriola* species, a fluke which apparently can cause damage to frog limb growth plates. Can anyone suggest the names of knowledgeable trematologists and malacologists who might add to our limited bank of knowledge regarding “swimmer’s itch” cercariae, and the known definitive water fowl and mammalian hosts?

In 1995 Ken Mott (WHO, deceased) told us that swimmer’s itch was a major problem in Russia and Eastern Europe. The same phenomenon that may be causing an absolute increase in this global problem may also be the same for deformed frogs — and would explain there also being found in “pristine” bodies of water that could not have been contaminated with man-made chemicals and pesticides.

In reviewing some of the lesser known fluke infestations, we discovered that cercariae of the giant liver fluke *Fascioloides magna* of elk require “non-alkaline” fresh water. If this is true of other non-tropical flukes, might acid rain be acting as a promoter of non-human flukes?

We need to access an up-to-date knowledge base on non-human digenetic trematodes. Our parasite/zoonoses texts are worthless; WHO Bulletins/Epi carry no reports on them; Lexus Nexus has some international reports (Germany), but not much else...

COMMITTEE FOR THE NATIONAL INSTITUTE FOR THE ENVIRONMENT REPORTS ON GROWING MOMENTUM TO ESTABLISH NIE

Efforts to establish a National Institute for the Environment (NIE) have gained substantial momentum in recent months. The proposed NIE will be a non-regulatory environmental science institute that will serve as the nation’s leading provider of substantive information on the environment. It will identify, prioritize, and fund research in the natural and social sciences, engineering, economics, and other disciplines as needed to solve environmental problems. The NIE will not operate its own laboratories, but will competitively award grants for peer-reviewed research at universities, government labs, non-profit organizations, and private companies. The NIE would include a National Library for the Environment, a prototype of which is already available on the internet (www.cnie.org). The NIE will be created under the National Science Foundation (NSF).

Recent progress towards establishing the NIE includes:

- * By the end of the 105th Congress, bipartisan support for creating the NIE reached 92 cosponsors of H.R. 2914, The Sound Science for the Environment Act.
- * The House Appropriations Committee, in its FY 1998 report, directed NSF to study “how to establish and operate a NIE.”
- * More than 220 college and University presidents signed a letter addressed to the NSF encouraging it “to be bold and enthusiastic” in its response to the Congressional directive.
- * NSF has recently created a Task Force on the Environment to chart its future course.
- * The U.S. Chamber of Commerce along with 20 state chambers of commerce have endorsed the NIE proposal.
- * House Rep. Vern Ehlers authored *Unlocking Our Future: Towards a New National Science Policy*, the NSF study report released by the House Science Committee (see www.house.gov/science_policy_report.htm). This report calls for science related to decision

making, especially environmental, to be elevated as rational for federal support of science.

The prototype for the electronic National Library for the Environment (www.wnie.org) has also had increased success. It is currently linked to almost 2,000 sites on the internet and received the Computerworld Smithsonian Award for web sites. It contains more than 400 nonpartisan environmental reports produced by the Congressional Research Service, in addition to environmental news that is updated daily from 10 different sources and is linked to more than 300 environmental newspapers and magazines. The library holds over 100 State of the Environment reports from both the United States and around the world. Visitors can also access the full text of environmental laws from local domestic to international regulations, as well as briefing books on global climate change, ocean and coastal resources and electric utilities.
Submitted by Thaddeus Graczyk.

AMERICANS FOR MEDICAL PROGRESS HELP CNN FOCUS ON ANIMAL RIGHTS VIOLENCE

The following article appeared in the Fall 1998 issue of *AMP Notes*, a newsletter published by Americans for Medical Progress.

CNN's newsmagazine program *Newstand: CNN & Time* took a hard look at the recent escalation of violent animal rights activists. In addition to reporting on the rash of arsons at animal-related businesses around the country, CNN documented the many distortions put out by PETA in its campaign against Boys Town National Research Hospital. Researchers Ed Walsh and JoAnn McGee spoke about the infiltration of their lab by PETA employees and the subsequent threats and harassment they received from animal activists.

Briefed in advance by AMP and well armed with information, the CNN reporter caught PETA president Ingrid Newkirk in several awkward statements and inconsistencies involving the Boys Town attack. Newkirk also failed to condemn violent activity committed in the name of animal rights.

In the wake of a three page open letter from PETA attacking CNN for broadcasting the segment, scores of members of the research community and other caring citizens took the time to write or e-mail CNN executives with messages of support for the program and for animal research.

AMERICANS FOR MEDICAL PROGRESS HIGHLIGHT ANIMAL RESEARCH IN WOMEN'S HEALTH CAMPAIGN

This article appeared in the Fall 1998 issue of *AMP Notes*, newsletter of Americans for Medical Progress.

Americans for Medical Progress, the AALAS Foundation, and The Society for the Advancement of Women's Health Research inaugurated a campaign in the Fall of 1998 to enhance public awareness and appreciation of medicine's ongoing quest to improve the health and well-being of women, and to focus attention on attempts by animal rights activists to block vital research on women's health.

There are currently over 350 new medicines to meet women's health needs either in clinical trials or awaiting government approval. Among these are drugs for osteoporosis; ovarian,

breast and cervical cancer; diabetes; heart disease; lung and respiratory disorders; arthritis and related diseases; and autoimmune diseases such as lupus and Scleroderma. Animal research has played a key role in the development of each of these treatments, and all those that are already available to women.

Despite their enormous stake in the future of animal research in medicine, women are also responsible for the majority of contributions given to animal rights organizations, many of which are opposing research designed to provide treatments and cures for diseases affecting women. Their opposition threatens to halt progress in developing treatments for women's illnesses.

"Our Women's Health Campaign will empower women to make informed decisions about their health care and charitable giving - ensuring that their donations will not work against their interests in medical research," said Jacquie Calnan, President of Americans for Medical Progress.

There are many examples of how animal rights groups are impeding scientists' efforts to improve women's health. Here are but a few:

- * PETA opposes women's use of the hormone replacement therapy Premarin, even though it is effective in protecting against osteoporosis, heart disease, and Alzheimer's as well as in relieving menopausal symptoms. As part of its offensive, PETA is working to undermine the National Institutes of Health's Women's Health Initiative, which is producing a legacy of information on how diseases and the aging process affect women.

- * Physicians Committee for Responsible Medicine (a pro-animal activist group) is spearheading a drive to stop contributions to health charities that sponsor animal research. This includes the March of Dimes, which is concerned with prenatal health as well as the prevention of birth defects, the American Heart Association, the American Cancer Society, the Arthritis Foundation, and the American Diabetes Association, along with dozens of other health research advocacy organizations.

- * PETA lobbied against the joint US-Russian-French space project Bion, which was designed to develop new information about osteoporosis, anemia and other diseases.

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