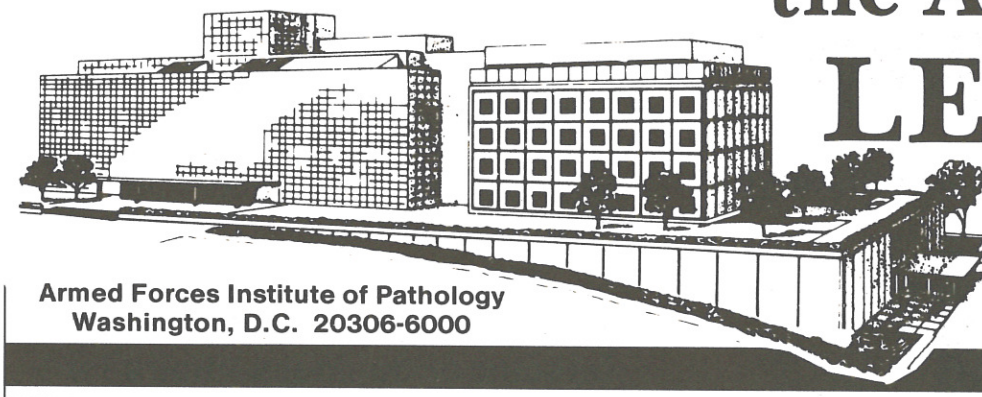
the AFIP LETTER



Armed Forces Institute of Pathology
Washington, D.C. 20306-6000

Vol. 148, No. 2
April 1990

The Director's Message

AFIP and the Changing World Around Us

With the recent creation of the Department of Environmental and Toxicologic Pathology, we've taken another step in preparing the AFIP to meet the demands of a changing world. Our staff has already begun to interface with the Food and Drug Administration, Environmental Protection Agency, and Centers for Disease Control to see how we can be even more responsive in this area.

Our newest department represents just one of the many ways in which we are working to improve our mission here at the AFIP. New task forces have been established to make us a more efficient and effective organization. Not only are we looking closely at how outside concerns such as the environment impact us; we're also looking at how to be even more responsive to the military and civilian sectors.

Other alternatives are being explored, including ways to maintain funding levels that will allow us to remain an international pathology resource. We're exploring ways to expand our research programs through extramural funding and in the field of education, to offer improved, state-of-the-art courses to meet the needs of our attendees.

Technology now exists to place information on computer data bases that can be utilized for training our residents and post residents We're investigating ways to enter fascicles, reports and histo slides on disks in order to access them with greater ease. Programs are becoming available where photographs and x-rays can be magnified on the CRT in a more interactive, hands-on manner. Through these interventions, the knowledge and skills of our expert staff will be available to the entire pathology community for diagnostic and research purposes.

Finally, we're continually striving to improve our consultation turnaround time here at the Institute. This is an area I cannot emphasize enough if we are to remain a premiere consultative source in pathology. The continuing contribution of the difficult diagnostic cases will be the basis for future research endeavors using present and future technology.

Robert F. Karnei, Jr.
CAPT, MC, USN
The Director

Colonel Lloyd A. Schlaeppi Retires

Colonel Lloyd A. Schlaeppi, MS, USA, retired 6 April from the Armed Forces Institute of Pathology where he has served as Executive Officer since 27 August 1987. A native of Rochester, Minnesota, he received his B.A. in Speech from the University of Minnesota in 1961 and his Masters in Hospital Administration from Baylor University, Waco, Texas, in 1973.

Colonel Schlaeppi's prior assignments include Platoon Leader, Executive Officer, and Company Commander, 1st Battle Group, 30th U.S. Infantry and 3rd Medical Battalion, Republic of Germany; Executive Officer, Medical/Dental Division and Headquarters Commandant, Western Area Military Traffic Management Terminal Services, Oakland Army Base, California; Patient Administrator, 91st Evacuation Hospital and 8th Field Hospital, Republic of Vietnam; White House and Congressional Liaison Officer, Office of the Surgeon General (OTSG), Chief, Professional Inquiries Office, OTSG; Project Manager, TRIMIS Army, Walter Reed Army Medical Center (WRAMC), Washington, D.C.; Patient Administration Project Manager, OSD (HA); Deputy Director, U.S. Army - Baylor University Graduate Program in Health Care Administration and Chief, Patient Administration Branch, Academy of Health Sciences, Fort Sam Houston, San Antonio, Texas; Chief, Patient Administration Directorate, WRAMC; and Patient Administration Consultant, Office of The Surgeon General.

Colonel Schlaeppi's military awards include the Bronze Star Medal, Defense Meritorious Service Medal, Army Meritorious Service Medal (20LC), Army Commendation Medal (20LC), Army Achievement Medal, National Defense Service Medal, Vietnam Service Medal, Overseas Ribbon, Vietnam Cross for Gallantry, Meritorious Unit Citation, National Defense Service Medal, the Order of Military Medical Merit, the Department of the Army Staff Badge, and the Office of the Secretary of Defense Service Badge.

Colonel Schlaeppi is married to Sharon Ann (Schrader) of Bozeman, Montana. They have one child, Nathan, who attends Montgomery College at Germantown, Maryland.

Jonathan Johnstone Appointed Director of Business Affairs for ARP

The American Registry of Pathology (ARP) has appointed Jonathan Johnstone as Director of Business Affairs. In his new position, Mr. Johnstone will be responsible for the information and marketing of AFIP fascicles, study sets, and postgraduate short courses throughout the international pathology community. Mr. Johnstone will also oversee the development of an integrated accounting software package for ARP.

The Curwensville, PA native holds a B.S. in Business Administration from Duquesne University, Pittsburgh, PA. Employed in the metropolitan Washington, D.C. area since 1978, Mr. Johnstone has served as an accountant and financial controller for a firm with over $25 million in revenues. He has also served as a national sales manager, has an extensive background in direct marketing and telemarketing, and has overseen the development of corporate financial software programs.

Mr. Johnstone is a professional weekend musician and an avid tennis player. He and his wife, Tamara, and daughter, Jennifer, reside in Laurel, MD.

Chapman Binford, M.D.
1900-1990

Chapman Binford, M.D., whose tireless efforts on behalf of the AFIP and the civilian medical community resulted in the Congressional Chapter of the American Registry of Pathology (ARP), died at his home in Arlington, Virginia, on February 9, 1990. He was 89 years old.

Dr. Binford's distinguished 31 year career at AFIP began in 1951 when he was appointed as head of the newly created Infectious Disease Section, and as the first Registrar for the Leprosy Registry. He served from 1963 until 1976 as Chief of the Special Mycobacterial Disease Branch.

Born in Prince Edward County, Virginia, in 1900, Dr. Binford graduated Phi Beta Kappa from Hampden-Sydney College and the Medical College of Virginia. He started his eminent work in the field of leprosy with the Public Health Service, and made key clinical observations that helped him formulate hypotheses that would later influence the course of leprosy research worldwide. While at AFIP, he became a pioneer in the search for animal models for leprosy, and his work provided a basis for the Immunology of Leprosy Program (IMMLEP) of the World Health Organization, established in 1974. Dr. Binford also coedited **The Pathology of Tropical and Extraordinary Diseases**, which became a definitive work in its field.

Dr. Binford's approach to international medicine, and in particular to geographic pathology, resulted in cooperative medical research programs in Uganda, South Africa, the Philippines and Thailand. His efforts led to the establishment of many mission hospitals throughout the Third World, and have eliminated immeasurable human suffering. As a direct result of his efforts, the cooperative programs between AFIP and ARP led to remarkable advances in consultation, education, and research programs. These programs continue to this day, providing major advances in the study and treatment of leprosy, AIDS, substance abuse, and environmentally induced health problems.

Dr. Binford maintained his role as a consultant, researcher, and educator for the Department of Infectious and Parasitic Diseases at AFIP until September, 1988. His accomplishments included publication of seven books or monographs, more than 30 chapters in texts, and over 100 articles in scientific journals. He participated in 15 professional societies and was listed in Who's Who in America.

Chapman Binford was a man of great humanity, vision, and perseverance, never tiring, always hopeful. He made the right things happen.

Callender-Binford Fellow Kenneth B. Muhvich

Dr. Kenneth B. Muhvich will come to the AFIP in July as an ARP Callender-Binford Fellow from the University of Maryland-Baltimore campus. His primary interest will center on the use of oxygen tensions in the treatment of infectious diseases. He will work with the Division of Altitude and Hyperbaric Physiology in his study of the use of a combination of therapies which may constitute a more effective therapy, with reduced side effects (over current therapeutic agents). Peripheral benefits of this line of study could well cross over into treatments for bacterial infections.

Dr. Muhvich received his doctoral degree in 1989 from the University of Maryland (Department of Pathology), has served as Laboratory Director (Clinical Microbiology) and taught general and cellular pathology. During the one-year fellowship, Dr. Muhvich will continue to teach AFIP and ARP sponsored classes and conduct seminars on research technique and oxygen's role in the treatment of infections.

An Urgent Agenda: Health Education Exhibits for the Public

The National Museum of Health and Medicine (NMHM) of the AFIP co-sponsored a special workshop at the annual meeting of the American Association of Museums in Chicago on May 12. "America's museums have the opportunity to save lives" was the message brought to representatives from international museums as they discussed methods to create effective health education exhibits.

According to Sheila Pinsker, Curator of Education at the NMHM and workshop co-chair, the exhibits will be in conjunction with a new ten-year national campaign by the Public Health Service to reduce preventable death, disease and disability in the United States. Pinsker's slides of the NMHM's AIDS Education Exhibit provided participants with a dramatic example of a colorful and much visited walk-through display.

Pinsker also noted that workshop participants reviewed photographs of a planned NMHM Substance Abuse Prevention exhibit that will rely on fiber optic and video disk technologies. "This remarkable advancement will allow us to provide 'cutting-edge' technological support for public education efforts on the dangers of alcohol, drugs, and tobacco abuse," she says.

Workshop participants responded enthusiastically to the ideas offered and considered ways for their institutions to join the health education effort. The workshop was co-chaired by the U.S. Department of Health of Health and Human Services, Public Health Service.

Drawing for Substance Abuse Prevention exhibit in progress.

Chamber Personnel Receive Joint Service Achievement Medal

COL J. Thomas Stocker, Deputy Director (center) and award presentees TSgt Joseph G. Casale (left) and SSgt David A. Nelson.

On 26 April TSgt Joseph G. Casale and SSgt David A. Nelson of the Division of Altitude and Hyperbaric Physiology received the Joint Service Achievement Medal for their quick action in the management of a hyperbaric chamber emergency. On 9 February, a hyperbaric chamber research dive was being conducted to 135 feet of seawater. As the chamber pressure approached 120 feet, a chamber hull pressure fitting ruptured with noise loud enough to make voice communication impossible. This situation set the stage for an uncontrolled rapid decompression to the surface which could endanger the lives of the inside research team and cause potential damage to valuable research equipment. In the midst of this potentially disasterous and extremely confusing situation, TSgt Casale and SSgt Nelson quickly diagnosed the problem, stabilized chamber ascent by maneuvering the air compressors to compensate for rapid pressure loss, and calculated safe ascent rates. Through their quick and decisive actions the four inside team members were brought back safely to the surface unharmed.

Both Sergeants Casale and Nelson are United States Air Force Aerospace Physiology Research Technicians assigned to the AFIP.

Both received their original training in altitude and hyperbaric chamber operations at Brooks Air Force Base, Texas, and have had considerable experience conducting courses and chamber flights for active duty air crew members and cadets attending the United States Air Force Academy.

Department of Environmental and Toxicologic Pathology Formed at AFIP

The AFIP recently merged the Departments of Chemical Pathology and Environmental and Drug-Induced Pathology into an new entity: the Department of Environmental and Toxicologic Pathology. The department, which now includes four pathologists, three Ph.D. chemists, four technicians, and two secretaries, is chaired by Nelson S. Irey, M.D.

"We will provide investigative, diagnostic and consultative services in the field of environmental pathology to pathologists and others in the Armed Forces, the U.S. Public Health Service, the Department of Veterans Affairs, and civilian pathologists and institutions," notes Dr. Irey. The services are related to the morphologic, biochemical, histochemical, radiologic, and toxicologic aspects of environmental diseases and problems, he adds.

Among other things, present on-site equipment at the AFIP includes an atomic absorption spectrophotometers, liquid and gas chromatographs, an infra-red spectrophotometer equipped with on-line GC and microscopic accessories, and the equipment necessary to perform x-ray diffraction and energy x-ray analyses.

Dr. Irey notes that his department plans to interface on environmental studies with other federal agencies and civilian institutions, as well. "Two representatives of the AFIP, Dr. Donald W. King, Executive Director Designate of the American Registry of Pathology, and Dr. Florabel G. Mullick, Associate Director, CAP, of the AFIP recently conducted exploratory visits to numerous agencies," he says. Among them were the FDA Toxicology Laboratory, EPA, and Centers for Disease Control; others included the Edgewood Arsenal, the University of North Carolina, the University of California-Berkeley, and New York University.

The new department's analytic capabilities include the identification and study of herbicides, pesticides, and isomers detectable by FTIR spectroscopy; microscopy; biochemical and histochemical enzymology; mutagen studies (including human in-vivo chromosomal aberration, and human in-vivo sister chromatid exchange); mutagen detection and fluorescent microscopy of chromosomes; radioactive isotopes; separation of tissue mineral and trace metals in biologic specimens and clinical matrices; and, equipment to carry out chemical digestion of tissue samples.

A special ad hoc environmental advisory committee, chaired by Dr. Mullick, has been formed to enhance the Institute's capabilities in handling environmental problems. This new work group consists of membership from the Departments of Environmental and Toxicologic Pathology, Veterinary Pathology, Infectious and Parasitic Diseases Pathology, Biostatistics and Epidemiology and the Armed Forces Medical Examiner.

Dr. Nelson S. Irey, head of Department of Environmental and Toxicologic Pathology, and Dr. Florabel Mullick, chair of ad hoc environmental advisory committee

Digestion of tissue sample for separation of chemical agent.

19th Century Cast Iron Coffin Opened at National Museum of Health and Medicine of the AFIP

A cast-iron coffin containing the remains of a Virginia man dead for over 120 years was opened in April at the AFIP's National Museum of Health and Medicine. "This will really allow us to do an in-depth study of his remains and the artifacts associated with him," notes Paul Sledzik, Curator of Anatomical Collections at the NMHM of the AFIP. "We'll now be able to look at clues concerning the nature of his death and the circumstances of his life."

This unique study is a collaborative effort between the NMHM and the Smithsonian Institution's National Museum of Natural History. The deceased, known as Walter W., came to the NMHM's attention after his descendants expressed concern about the impact of development on a 165 year old Manassas, Virginia, cemetery. In October, 1989, a team of anthropologists led by Sledzik and Dr. Doug Owsley of the Smithsonian, excavated at the grave site. In addition to Walter's remains, 23 additional graves were found.

Skull of Walter W., after removal from coffin.

Thanks to his burial in a cast-iron coffin, Walter's skeletal remains were found to be remarkably well preserved. The other 23 graves "were just fragments," notes team member Dr. Noreen Tuross, also from the Smithsonian. "Historically, in recovering human remains, the soil is too acidic, but here we have an anomaly," she says. "The cast-iron coffin has preserved the skeleton extremely well, due mainly to water that seeped into it. We'll be doing a DNA study to see how the nucleic acids have changed between last October, when we removed the coffin from the ground, and April, when we opened it."

Owsley is just as encouraged about extracting protein antibodies from the skeleton to look for infections that Walter W. may have suffered from. "Different conditions, such as tuberculosis and syphilis can be tested for," he notes. "By recovering antibodies (immunoglobulins) that are preserved in the bones, we can learn more about what he suffered from and the evolution of disease through time. The field of skeletal biology is making a quantum leap in terms of methodology, and now is the perfect time for us to look at this."

Sledzik notes that the studies may also provide clues to compare Walter's data with similar information from other 19th century populations. "An attempt may also be made to reconstruct his face, since no known portraits of him have survived," he says. Walter's descendants are supportive of this project, Sledzik notes, and he will be reinterred once it is completed. Because of his family's generosity, both his coffin and the tuxedo in which he was buried will become part of the Museum's historical collections.

NMHM and Smithsonian staff begin anthropological and historical study of well preserved skeleton found in cast-iron coffin.

Black burial tuxedo and the elaborately crafted coffin will remain in the NMHM's collections after the skeletal remains are reinterred.

Announcements

Preparation of Gold Chloride Solution

If freshly made gold chloride solution should precipitate during its preparation as indicated by a pale yellow milky appearance, the chances are that the pH of the water used is alkaline. Also, when gold chloride solution, which is a clear yellow color, is poured on to microslides that have been rinsed in alkaline water, the solution will immediately become milky and must be discarded since a precipitated solution will not properly tone sections which have been treated with methenamine silver nitrate solution. As a toner, gold chloride produces a clear gray background with silver positive elements sharply delineated in black. In order to consistently produce the desired results in procedures which employ gold chloride as a toner, as in the Grocott's Methenamine Silver Nitrate Method for Fungi, bottled distilled water for irrigation is recommended both for the preparation of gold chloride solution and for rinses prior to the placement of slides in this solution. Random pH measurements of water samples from deionized water systems and, in rare instances, centralized distilled water systems, have shown that the pH may vary from pH 5.5 to pH 8.0. To prevent a precipitate from forming in situations as noted above, bottled distilled water for irrigation that has not been previously opened and stored may be used (since for medical purposes its pH range is pH 5-7).

Department of Repository and Research Services

With few exceptions, all cases accepted at the Institute must meet certain minimum requirements concerning completeness of the case prior to being accessioned. These requirements can be different for each pathology department and are detailed in the instruction sheet attached to the AFIP Form 288-R, Military and Civilian Contributor's Consultation Request. The Receiving and Accessions Division puts between 150 to 200 cases on hold each month because the case was not accompanied by all required materials. Approximately 50 to 100 of these cases end up being returned to the contributor. A quick review of a particular department's minimum case acceptance requirements prior to forwarding the case could preclude any unnecessary delays.

Records Repository and Information Release Division personnel are always willing to help contributors and other personnel when calling regarding the status of a particular case. However, when calling regarding the status of a recently submitted case, contributors are asked to contact the applicable pathology department directly. Many of these types of calls come into the Records Repository and Information Release Division and division personnel usually end up having to transfer the calls to the appropriate pathology department. Most cases are accessioned and sent up to the pathology departments the same day they are received.

Continuing Medical Education Course Program Reaccredited

The AFIP has been resurveyed by the Accreditation Council for Continuing Medical Education (ACCME) and awarded accreditation for six years as a sponsor of continuing medical education for physicians.

ACCME accreditation seeks to assure both physicians and the public that continuing medical education courses sponsored by the Institute meet the high standards of the Essentials for Accreditation as specified by the ACCME.

The ACCME rigorously evaluates the overall continuing medical education programs of institutions according to standards adopted by all seven sponsoring organizations of the ACCME. These are: the American Board of Medical Specialities; the American Medical Association; the Association for Hospital Medical Education; the Association of American Medical Colleges; the Council of Medical Specialty Societies; the American Hospital Association, and the Federation of State Medical Boards.

AFIP Catalog of Educational Study Loan Materials

The free catalog lists the study loan slide sets available from the AFIP to help disseminate information which will assist medical personnel in their educational endeavors. The listing includes microscopic slides, 35mm slides, CPC's - Clinicopathologic correlations by AFIP, MGH's - Massachusetts General Hospital Case Reports, study sets by the WHO and ASCP, and human and veterinary study sets by the AFIP staff.

To obtain a catalog, call the AFIP Media Center at (202) 576-2979 (AUTOVON 291-2979).

Reprints

Eosinophilic Meningoencephalitis Due to Angiostrongylus cantonensis as the Cause of Death in Captive Non-Human Primates

Gardiner, C.H., Wells, S., Gutter, A.E., Fitzgerald, L., Anderson, D.C., Harris, R.K., and Nichols, D.K.

Fatal eosinophilic meningoencephalitis due to Angiostrongylus cantonensis is reported in captive non-human primates. A howler monkey (Alouatta caraya) at the Audubon Park and Zoological Gardens, New Orleans, LA, died 21 days after initial clinical symptoms. A white-handed gibbon (Hylobates lar) died at the Ardastra Gardens and Zoo, Nassau, Bahamas, 17 days after onset of symptoms. Both had access to free-ranging gastropods within the zoos. These are the first reported cases of natural infection by A. cantonensis in non-human primates in the western hemisphere.

Am. J. Trop. Med. Hyg. 42: 70-74, 1990.

Identification of Mycoplasma incognitus Infection in Patients with AIDS: An Immunohistochemical, In Situ Hybridization and Ultrastructural Study

Shyh-Ching Lo, Marilyn S. Dawson, Dennis M. Wong, Perry B. Newton, III, Mary Ann Sonoda, Walter F. Engler, Richard Yuan-Hu Wang, James Wai-Kuo Shih, Harvey J. Alter, and Douglas J. Wear

Monoclonal antibodies (Mabs) were developed against antigens from a pure culture of Mycoplasma incognitus grown in modified SP-4 medium. All the Mabs obtained were shown to react only with M. incognitus, and not with other species of human mycoplasma. The Mabs identified M. incognitus immunohistologically in thymus, liver, spleen, lymph node, or brain from 22 patients with AIDS, as well as in 2 placentas delivered by patients with AIDS. Using an ^{35}S-labeled DNA probe specific for 8 and in situ hybridization technique, we also identified M. incognitus-specific genetic material in these tissues. Furthermore, ultrastructural studies of the specific areas of tissues which were highly positive for M. incognitus antigens revealed characteristic structures of mycoplasma organisms. These mycoplasma-like particles could be identified intracellularly and extracellularly. Histopathology of the tissues infected by M. incognitus varied from no pathological changes to fulminant necrosis with or without an associated inflammatory reaction. M. incognitus, a novel pathogenic mycoplasma, was cytopathic and cytocidal.

Am. J. Trop. Med. Hyg. 41(5), 1989, 601-616 (89-164)

A Comparison of the Results of Long-Term Follow-up for Atypical Intraductal Hyperplasia and Intraductal Hyperplasia of the Breast

F. A. Tavassoli, M.D. and H. J. Norris, M.D.

Follow-up information was obtained on 199 women with breast biopsy specimens containing intraductal epithelial proliferation. The proliferations were divided into regular or ordinary intraductal hyperplasia (IDH) (117 cases) and atypical intraductal hyperplasia (AIDH) (82 cases). The average length of follow-up was 14 years for the patients with IDH and 12.4 years for the patients with AIDH. Of the 117 patients with ordinary IDH, carcinoma subsequently developed in six (5%); three of these were invasive carcinomas (2.6%). All three invasive carcinomas were in the ipsilateral breast, but of the three intraductal carcinomas (IDCa), two were in the contralateral breast. Of the 82 patients with AIDH, invasive carcinoma subsequently developed in eight (9.8%); six of these were located in the ipsilateral breast and two in the contralateral breast. One of these six patients died of disseminated carcinoma. The average interval to the subsequent carcinoma (intraductal and invasive carcinoma) was about the same in the two groups (8.3 years for AIDH and 8.8 years for IDH lacking atypia). When considering only subsequent invasive carcinomas, the interval was 8.3 years for the AIDH and 14.3 years for the IDH lacking atypia. Of the 14 patients with IDH and a family history of breast carcinoma, invasive carcinoma subsequently developed in one (7%) as compared with two (2%) of the 91 with a negative family history. Among patients with AIDH, invasive carcinoma subsequently developed in two of the 13 (15%) of those with a family history of breast carcinoma as compared with one of 57 (1.8%) of the women with a negative family history. The presence of atypia in epithelial hyperplasia is a significant factor in increasing the likelihood of the development of subsequent invasive carcinoma (P=0.03; two-tailed test). Of women with AIDH, invasive carcinoma subsequently developed in 17% of those with sclerosing adenosis (SA) as compared with 4.2% of those without it. Therefore, SA may be a contributing factor to increased risk. A positive family history also appears to increase the likelihood of the subsequent development of invasive carcinoma, particularly in patients with AIDH.

Cancer, Vol. 65, No. 3, 518-529, February 1, 1990.

Postgraduate Short Courses in Continuing Education
Academic Year 1990

Course Title	Scheduled Dates	Application Deadline	Non-Federal Fee	Federal Fee
Annual AFIP Seminars in Pathology	23-25 May 90	23 Apr 90	$300	$45
Exfoliative & Fine Needle Aspiration Cytology	11-15 Jun 90	11 May 90	$450	$30
Seminar & Workshop-Histotechniques	6-9 Aug 90	6 Jul 90	$200	$20
Pathology of Laboratory Animals	13-17 Aug 90	13 Jul 90	$200	$30
Pathology of Congenital Heart Disease	20-24 Aug 90	20 Jul 90	$250	N/A
Anatomy, Histology and Electron Microscopy of the Eye, Orbit and Ocular Adnexa	25-26 Aug 90	25 Jul 90	$200	$15
Ophthalmic Pathology for Ophthalmologists	27-31 Aug 90	27 Jul 90	$450	$40
Hepatic Pathology	5-7 Sep 90	6 Aug 90	$325	$25
Hepatobiliary Radiology Review	8-9 Sep 90	8 Aug 90	$250	$20

Course Descriptions

AFIP Annual Seminars in Pathology

Review and compilation of recent information in anatomic pathology involving various organ and body systems. Will include common pitfalls in diagnosis, review of unusual cases, statistical data, articles published or to be published by staff members, and new histochemical, bacteriological, biochemical, immunological and toxicological methods in pathology.

Enrollment limited to 200. Approximately 18 CME credit hours.

Exfoliative & Fine Needle Aspiration Cytology

Diagnostic exfoliative and fine needle aspiration cytology via formal lectures and microscopic workshop sessions. Topics covered include benign and malignant criteria for all body sites; female genital tract; respiratory, urinary and gastrointestinal tracts; body cavity effusions; cerebrospinal fluids; breast; thyroid; salivary glands; lymph nodes; prostate; liver and pancreas. Infectious agents accompanying inflammatory cell changes and cytologic grading of dysplasias will also be emphasized.

Enrollment limited to 70. Approximately 35 CME credit hours.

Seminar & Workshop - Histotechniques

The first two days consist of lectures which cover a wide variety of topics in histotechnology. The last two days allow the participant to select one or two workshops to discuss the selected methodologies, hands-on experience in procedures and a comprehensive discussion of the results achieved.

Enrollment limited to 30. Applicants should have a minimum of one year in a histopathology laboratory and a training request made by the sponsoring pathologist. Use of special application is essential, and can be obtained by writing the Armed Forces Institute of Pathology, ATTN: AFIP-EDE, Washington, D.C. 20306-6000. Approximately 26 CME credit hours.

Pathology of Laboratory Animals

Primarily for professionals who are responsible for the recognition and interpretation of lesions in lab animals, it is intended to help them interpret spontaneous diseases which may affect experimental results, or alter the supply of suitable lab animals. Pathology is emphasized, but etiology, diagnosis and control will be discussed. A wide range of iotrogenic through infectious diseases will be discussed in a variety of lab animal species.

Enrollment will be limited to 150. Approximately 30 CME credit hours.

Pathology of Congenital Heart Disease

Designed for fellows, residents and board eligible candidates in cardiology, cardiothoracic surgery, pathology, and radiology. Lectures on the gross and microscopic pathology of the major forms of congenital heart and aortic disease, and demonstrations with gross and microscopic preparations and select videotapes. Ample time for interaction between faculty and attendees.

Enrollment limited to 15. Course offered Feb., May, Aug. and Dec. each year. When applying, specify when you want to attend. Approximately 30 CME credit hours.

Anatomy, Histology & Electron Microscopy of the Eye, Orbit & Ocular Adnexa

A review of the anatomy, histology, embryology and ultrastruture of the normal eye and ocular adnexa, the course will cover gross examination of the eye, orbit, and ocular adnexa, and histology of these structures by light and electron microscopy. This course is a prerequisite for the Ophthalmic Pathology for Ophthalmologists that follows. Separate registration required for each course.

Enrollment limited to 200. Approximately 14 CME credit hours.

Ophthalmic Pathology for Ophthalmologists

A basic and comprehensive survey of pathologic conditions affecting the eye and ocular adnexa. It will review general inflammation, acute, chronic and granulomatous lesions and their sequelae; injuries, cataract, glaucoma; vascular diseases; intraocular tumors; optic nerve pathology; epibulbar and orbital inflammatory and neoplastic lesions. The material will be presented by lectures and clinico-pathologic correlations of interesting cases.

Enrollment limited to 250. Applicants should be board qualified or certified or well advanced in Pathologic Anatomy or Ophthalmology.

Hepatic Pathology

This course covers general principles of liver biopsy interpretation, cholestatic disorders (including primary biliary cirrhosis and sclerosing cholangitis), alcoholic liver disease, fibropolycystic diseases, viral hepatitis, drug-induced liver diseases, vascular diseases, diseases of the liver during pregnancy, miscellaneous infectious diseases, Wilson's disease and hemochromatosis, Reye's syndrome, graft versus host disease and transplant rejection, and benign and malignant primary tumors, immunopathologic and ultrastructure aspects of liver diseases will be discussed. A slide seminar on tumors in childhood and adults will be presented. Microscopes are provided for review of the slides prior to and after the slide seminar.

Enrollment will be limited to 150. Approximately 20 CME credit hours.

Hepatobiliary Radiology Review

The radiology of both congenital and acquired diseases involving the liver, biliary ducts, and gallbladder with emphasis on the pathologic basis for the radiographic appearance of these abnormalities. All radiologic modalities discussed in the didactic sessions on radiologic-pathologic correlation. Interpretation of magnetic resonance images of the liver and hepatobiliary scintigraph will be reemphasized in separate discussions and a pattern approach to cholangiographic diagnosis will also be presented. Interventional radiology of the biliary system will be reviewed.

Enrollment limited to 200. Approximately 16 CME credit hours.

Instructions for Filling Out Registration Form for AFIP Courses

1. **Course Fee:** Payments for all courses are to be made payable to the American Registry of Pathology or ARP. To safeguard your course space, we strongly encourage advance fee payment when registration form is submitted, but not later than the Application Deadline (does not apply to non U.S. citizens).
2. **Application Deadline:** Fifty percent of the course spaces are reserved for federal applicants and 50% for non-federal applicants until the Application Deadline Date. After that date applications will be considered on a first-received, first-accepted basis.
3. **Federal Personnel Please Note:** To insure a space will be held for you, submit an application for each course you desire to attend directly to the Education Division, AFIP. Do this regardless of any funding action.
4. **Accreditation:** The Armed Forces Institute of Pathology is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.
5. **Registration Procedures for International Applicants:**

Civilians:

Mail letter of application to:

Chief, Program Resources Branch
E/VCP
United States Information Agency
301 4th Street, S. W.
Washington, D.C. 20547
Telephone: (202) 485-7228

Letter of application should include:

1. Title of Course
2. Inclusive dates of course
3. Your present position
4. Your home and office mailing address
5. Your date and place of birth
6. Your country of citizenship
7. Your financial arrangements for stay at this course (U.S. Government cannot be responsible for any expenses incurred while you are in the U.S.)

With your letter of application, attach a copy of course application form, a check drawn on a U.S. bank or International Money Order, made payable to the American Registry of Pathology, in U.S. dollars in the amount required.

Military

Request the desired training through your military training channels to the Security Assistance Office of the U.S. Mission in your country.

International Applicants Employed by an Agency of the U.S. Government

Attach to letter of application (see above) a letter certifying employment from your servicing personnel office and mail to:

U.S. Army Health Professional Support Agency
Attn: SGPS-EDI
5109 Leesburg Pike
Falls Church, VA 22041-3258

REGISTRATION FORM - AFIP COURSES

Course Title & Dates _____

Name (Last, First, MI) _____

Mailing Address _____

City, State, Zip _____

Phone _____ Specialty _____ Board Status: ☐ Certified ☐ Eligible

Military/Federal Civilian Employees (Only):Rank/Civilian Grade _____

Service Agency _____ Citizenship (See Notes 1 & 5) _____

Corps: ☐ MC, ☐ DC, ☐ NC, ☐ VC, ☐ Biomedical/Allied Science

Tuition Enclosed: (Payable in U.S. dollars only) ☐ Non-Federal Personnel $ _____ ☐ Federal Personnel $ _____

Make All Payments to: AMERICAN REGISTRY OF PATHOLOGY

Mail To:

Non-Federal Civilians
American Registry of Pathology
Armed Forces Institute of Pathology
Washington, D.C. 20306-6000
Telephone: (202) 576-2980

Federal Personnel
Armed Forces Institute of Pathology
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