

# the AFIP LETTER



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

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## AFIP staff spearheads genetic ID for military

The establishment of a DoD DNA specimen repository, created and developed by the AFIP's Armed Forces Medical Examiner's Office, became a reality on June 10, 1992, when the Army commenced with the program at Ft. Knox, KY. "Identification of remains has long been a priority for the U.S. military," notes MAJ Victor Weedn, MC, USA, chief of the Armed Forces DNA Identification Laboratory (AFDIL), "and the establishment of this repository may very well mean that we will no longer have an 'unknown soldier' from future battle casualties."

The primary specimen will be a bloodstained card, which will be stored in a secure central repository, with testing taking place only on needed casework. The Air Force and Navy will commence with the program in late 1992 or early 1993, and officials estimate that specimen collection encompassing the entire active-duty military population will be completed over a five-year time period.

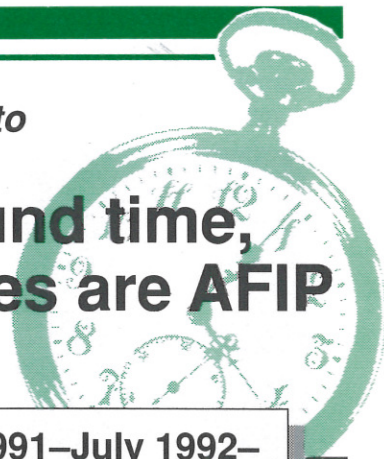
AFDIL has been involved in identification efforts on a variety of remains, including casualties from Operation Desert Storm and fragmented or skeletonized remains from the Vietnam War.

### IN THIS ISSUE . . .

Director's Message .....	2
San Antonio course .....	3
Brinton Award winner .....	4
Staff in the News .....	5
Repository update .....	9

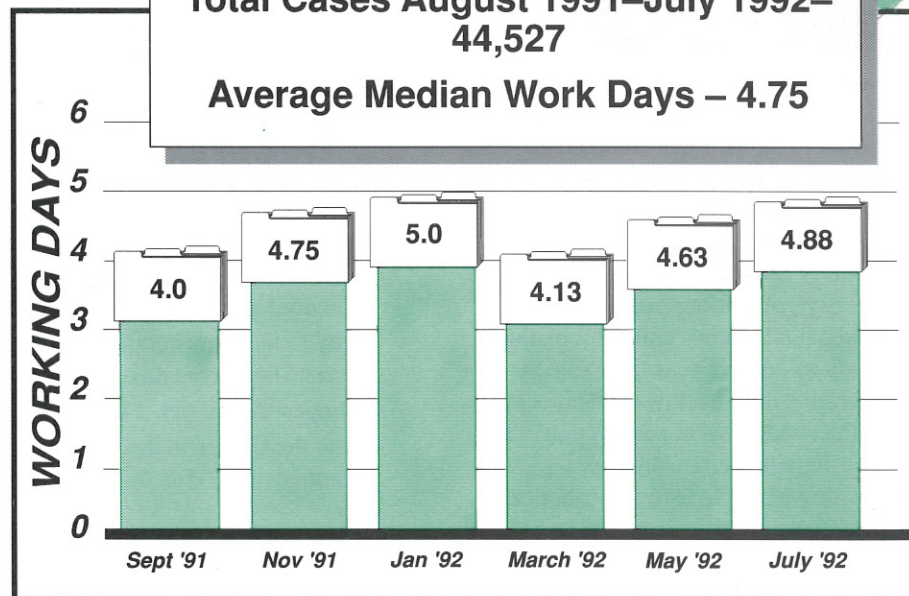
## Uncomplicated cases returned to contributors in 24 hours

# Improved turnaround time, quality of diagnoses are AFIP priorities



Total Cases August 1991–July 1992–  
44,527

Average Median Work Days – 4.75



Consultations reviewed by the AFIP's staff of experts are usually returned to contributors within 5 working days, and uncomplicated cases can usually be reviewed in just 24 hours, according to Deputy Director Glenn N. Wagner, CAPT, MC, USN. "A case coming to the AFIP for validation can in most instances be turned around in less than 24 hours," he says. "Delayed cases are due to absent material or information and/or to the complexity of the work-up to accurately diagnose the case. The median is roughly 5 days in those instances."

The AFIP brings to each consultation unique, in-depth diagnoses from recognized experts. The Institute continues its commitment to integrating classical clinicopathologic correlations with molecular biology, utilizing technologies such as flow cytometry, in-situ hybridization, PCR, and state-of-the-art toxicology instrumentation.

"Because we are a reference center, contributors expect first-rate service," Wagner notes. "Every case received here is seen by more than one pathologist, and

*Continued on page 7*

### AFIP hosts lab experts to discuss CLIA 88

The Clinical Laboratory Improvement Amendments of 1988 (CLIA 88)! I cannot remember a time when so few words could stir such passion across the complete spectrum of the laboratory community, but whether FOR or



AGAINST specific aspects of the law, CLIA 88 has dramatically refocused our attention to an important area of

pathology-clinical laboratory medicine.

In this area, AFIP was honored to host a tri-service workshop on 20-23 July 1992. The purpose was to discuss and recommend approaches to meeting the intent and spirit of CLIA 88 in military-unique situations such as overseas operations and deployed medical laboratory units. For example, many of our overseas laboratories operate within the laws and agreements with sovereign host nations that could conflict with certain areas of CLIA 88. Another example is the distribution of proficiency testing materials to a ship in the Mediterranean Sea, stretching the bounds of possibility. These and many other circumstances were reviewed in this intense four-day meeting. Representatives included pathologists, clinical laboratory scientists, educators, and quality improvement experts from the Army, Navy, and Air Force. Key outcomes included quality improvement measures applicable to laboratory units in deployed areas, establishment of associate degree programs for enlisted medical laboratory training, and the establishment of a technical and administrative support structure for program management. The product of

### WHO Odontogenic Tumor Classification Published

The World Health Organization's Collaborating Center for the International Histological Classification of Tumors is located at the AFIP. It is responsible for organizing and coordinating the second edition of the WHO "Blue Books." The first edition was issued between 1967 and 1981; it aims at standardizing the definitions, nomenclature, and classification of tumors. There is close liaison with the AFIP's Atlas of Tumor Pathology so that the WHO recommendations are available to the Atlas authors.

About 20 working groups of pathologists in a variety of countries have been reviewing and updating the first edition of the classification. The second editions of the following WHO histological classifications have been published: *Thyroid Tumors* (1988), *Intestinal Tumors* (1989), *Esophageal and Gastric Tumors* (1990), *Tumors of the Gallbladder and Biliary Tract* (1991), *Salivary Gland Tumors* (1991), and *Histological Typing of Tumors of the Upper Respiratory Tract and Ear* (1991). The seventh, *Histological Typing of Odontogenic Tumors*, has now appeared. Its authors, I.R.H. Kramer, J.J. Pindborg, and M. Shear, worked with a group of ten experts from eight countries to elaborate the classification.


The book covers tumors and tumor-like lesions related to the odontogenic apparatus, those related to the bones of the jaw and epithelial cysts. This edition updates the previous one published in 1971. It provides a considerably revised classification and adds a number of newly recognized entities using internationally accepted terms and diagnostic criteria. Gross and radiographic illustrations supplement the usual high-quality photomicrographs. The aim is to promote pathologic, prognostic, therapeutic, and epidemiologic comparisons. ICD-O and SNOMed numbers accompany each entity to facilitate coding.

The book contains 142 figures and can be ordered from the publisher, Springer-Verlag (tel. 1-800 SPRINGER). A set of 35-mm slides corresponding to the figures in the book is available from the American Registry of Pathology at (202) 576-2978.

this group is being evaluated by the surgeons general of each service as the AFIP Letter goes to print.

In the area of education, we will inaugurate a laboratory management fellowship program on 1 September 1992. The goal of the program will be to provide advanced training and graduate instruction in the areas of staffing and managerial processes within the medical laboratory. Specific areas of focus will include: finance, operations, personnel, quality improvement, training, and professional services management. Our plans include working very closely with

military medical centers in the Washington, DC area, Services' medical headquarters staff, and the Uniformed Services University of the Health Sciences. We are very excited about the possibilities of this program and will feature more on this in an upcoming AFIP Letter.

  
Vernon W. Armbrustmacher  
Col, USAF, MC  
The Director

## San Antonio to Host "Update in Hematopathology"

**Holiday activities along the RiverWalk highlight December course**

San Antonio and its famed RiverWalk will host the 1992 "Update in Hematopathology" course, to be held at the Marriott RiverCenter from December 16-18. "This is a new venture for the AFIP," notes Deputy Director J. Thomas Stocker, COL, MC, USA. "Holding the course in the week prior to Christmas will allow everyone to partake in the many holiday festivities along the RiverWalk, which at that time of year is resplendent with thousands of lights, candles, and entertainment."

The Marriott RiverCenter adjoins the RiverWalk and the spectacular RiverCenter shopping complex and is just a short walk away from the Alamo and other well-known tourist attractions. According to COL Stocker, the program will allow time for dining, shopping, and strolling in the midst of pre-holiday festivities. "The course will finish by Friday afternoon so that participants can spend the weekend in the San Antonio area or return to their homes for family holiday activities," he says.

"Update in Hematopathology" will be directed by Glauco Frizzera, MD, chairman of AFIP's Department of Hematologic and Lymphatic Pathology. Dr. Frizzera is well-known in the field, and during his three years at the AFIP, the consultation service in Hematopathology has improved markedly. Joining him as codirector will be Peter M. Banks, MD, professor and chief of Anatomic Pathology at the University of Texas Health Science Center, San Antonio. Other faculty will include representatives from the AFIP; the University of Texas Health Science Center, San Antonio, TX; M.D. Anderson Tumor Institute, Houston, TX; the University of Texas, Dallas, TX; and the College of Physicians and Surgeons of Columbia University, New York, NY.

This two and a half-day seminar will discuss new and controversial disorders as well as advances in known diseases of both the lymphoid and hematopoietic systems, including the contributions of immuno-phenotypic analysis and molecular biology. The course is intended to update practicing pathologists on recent developments and the latest diagnostic techniques in current problem areas. Sessions on Thursday, December 17, and Friday, December 18, will conclude at 1:00 p.m. so that participants may take advantage of the numerous leisure activities available in San Antonio.

The AFIP's Center for Advanced Medical Education is currently hard at work preparing courses for 1993 in Washington, DC, and around the country. "We are changing the topics and locations for Washington, DC, area courses to include new hotel sites in Georgetown, Bethesda, and Alexandria, VA," notes COL Stocker. "We are aiming to keep our tuition at the lowest possible level. In fact, our fees when compared to courses offered by other organizations remain in the lower 25%."

**Upcoming 1993 AFIP courses "on the road" include the 31st Annual Neuropathology Course in New Orleans, LA, January 17-22; Controversies and Recent Advances in Surgical Pathology in Orlando, FL, February 8-12; and Hepatic Pathology in San Diego, CA, April 15-17.**



*A Christmas evening along the RiverWalk.*

*Courtesy: San Antonio Convention and Visitor Bureau.*

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## Survey responses pour in

Over 1,200 U.S. pathologists have responded to the AFIP Survey. We are presently looking at your comments and will report our findings to you in the October Letter. Your responses are valuable to us, and we encourage you to forward them at any time.

## Cynthia F. Wright, PhD, named 1992 Brinton Award winner



Cynthia F. Wright, PhD, molecular biologist in the Division of Molecular Pathology, Department of Cellular Pathology, received the 1992 John Hill Brinton Award at the James Earle Ash Lecture on May 27. The Brinton Award is presented to an outstanding researcher under the age of 41, who is not a department chairperson or equivalent and is the primary author of a scientific publication.

Dr. Wright's award winning article, "A Transcription Factor for Expression of Vaccinia Virus Late Genes is Encoded by an Intermediate Gene," was published in the July 1991 issue of the *Journal of Virology*. James G. Keck, Mark M. Tsai, and Bernard Moss served as coauthors.

Dr. Wright's article identifies a specific gene coding for production of a protein factor controlling vaccinia virus late genes. With recombinant constructs of that gene available, systematic studies

of the gene product's function now becomes practical. This work interfaces with work by other investigators to elucidate the molecular physiology of the vaccinia system, which is an excellent model of gene regulation, with potential for use as a vector for immunization to a range of antigens.

Dr. Wright has been a molecular biologist at the AFIP since February 1989, with her past experiences obtained at the Laboratory of Viral Diseases, National Institute of Allergy and Infectious Disease, and at the Laboratory of Biochemistry, National Cancer Institute, both at the National Institutes of Health. A native of Tacoma, Washington, Dr. Wright obtained her B.S. in microbiology from the University of Florida and her Ph.D. in molecular genetics from the State University of New York at Albany.

Past recipients of the Brinton Award are: LT Charles K. English, MSC, USN, 1988; LCDR Bruce M. Wenig, MC, USNR, 1989; Lt Col Robert L. Becker, USAF, MC, 1990; and Dr. Marc Micozzi, 1991.

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## Ina Tonkin, MD, named Distinguished Scientist by Department of Radiologic Pathology



Ina L.D. Tonkin, M.D. is serving as the Distinguished Scientist in the AFIP's Department of Radiologic Pathology from July 1, 1992, to June 30, 1993. Dr. Tonkin is a professor of Diagnostic Radiology and Pediatrics at the University of Tennessee Medical Center and codirects the Department of Radiology and the Cardiac Catheterization Laboratory at LeBonheur Children's Medical Center in Memphis, Tennessee.

Dr. Tonkin is a graduate of Depauw University and the University of Louisville School of Medicine. Her internship in pediatrics, residency in diagnostic radiology, and two-year NIH academic cardiovascular fellowship were all performed at the University of Florida in Gainesville.

Dr. Tonkin, who is certified by the American Board of Radiology, has held faculty positions at the University of Arizona and the University of Alabama. She moved to the University of Tennessee in 1979, and has remained at the institution since that time, earning the rank of professor in 1984.

Her major areas of interest have been the evaluation of congenital heart disease with angiography and noninvasive imaging techniques

and the use of intervention techniques for the diagnosis and treatment of other acquired pediatric diseases. She has authored or coauthored over 40 publications in radiology literature and has served as a visiting professor and invited speaker at innumerable institutions and courses.

Dr. Tonkin serves on the editorial board of the *Journal of Thoracic Imaging* and is a reviewer for eight additional journals in the fields of radiology and cardiology.

The AFIP is honored to have Dr. Tonkin bring her expertise in pediatric and cardiovascular/interventional radiology to the Department of Radiologic Pathology. Her arrival this year is especially fitting because it coincides with the creation of a new section of pediatric radiology at the AFIP.

The Distinguished Scientist position in Radiologic Pathology is federally funded through the American Registry of Pathology and is also supported by the American College of Radiology, the Radiology Society of North America, the American Roentgen Society, and the Association of University Radiologists.

The Distinguished Scientist position is available to established academic radiologists who wish to spend a sabbatical year in teaching and research relating to radiologic pathologic correlation. Those interested in applying for the 1994-1995 academic year should submit a letter of interest and CV to Dr. James L. Buck at the AFIP before December 31, 1992.

## AFIP STAFF "IN THE NEWS"



**Kamal G. Ishak, MD**, Chairman, Department of Hepatic and Gastrointestinal Pathology, recently traveled to Texas, Portugal, England, Hong Kong, Japan, and Korea on behalf of the AFIP.

From May 14-16, he presented two lectures on chronic hepatitis and hepatic tumors at the University of Texas, Southwestern Medical Center, Dallas. Later that month he attended the 25th Annual International Liver Group Meeting in Sesimbra, Portugal, where he presented a lecture on tumors of the liver in developmental and metabolic diseases. He also discussed four cases of cellular allograft rejection and other complications of hepatic transplantation.

In June, he participated in a slide seminar at the biannual meeting of the International Association for

the Study of the Liver in Brighton, England. From England he flew to Hong Kong, where he delivered a keynote lecture entitled "Neoplasms of the Liver: A Pathologist's Perspective" at the 4th World Congress of Hepato-Pancreato-Biliary Surgery on June 10. Dr. Ishak also gave a slide seminar to the Hong Kong division of the International Academy of Pathology at the Chinese University of Hong Kong on June 13, and reviewed problem liver biopsies at the Queen Mary Hospital, University of Hong Kong.

Dr. Ishak concluded his travels with stops at the Kurume University School of Medicine, Kurume, Japan, and at the Korean Society of Pathologists meeting in Seoul, Korea. He presented slide seminars and reviewed problem cases at both stops.



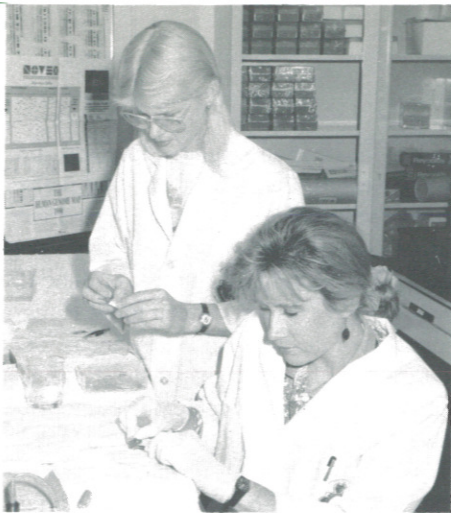
**George P. Lupton, COL, MC, USA**, Chairman, Department of Dermatopathology, was guest speaker at the meeting of Italian and French dermatologists entitled "Incontri Colombiani Della Riviera," held at Sanremo, Italy, 24-26 April 1992. In June, he delivered a lecture at the 13th Colloquium of the International Society of Dermatopathology entitled "Matters of Moment in Dermatopathology," held at New York University Medical Center in New York City. He also lectured at the Dermatology Symposium at the meeting of the 18th World Congress of Dermatology, held in New York City in June. In addition, Dr. Lupton was recently appointed to the editorial board of the *American Journal of Dermatopathology*.

■ **Leslie H. Sobin, MD**, Chief, Division of Gastrointestinal Pathology, Department of Hepatic and Gastrointestinal Pathology, and Associate Director of the Center for Scientific Publications, was in Geneva in May to chair the annual meeting of the Tumor, Nodes, Metastasis (TNM) Project of the International Union Against Cancer. Dr. Sobin then went to Willingen (Germany) to lecture on gastrointestinal polyps and carcinoid tumors at the 43rd Military Medical Surgical Clinical Conference. In June, he served on the faculty of an international course in Oslo on tumor pathology for epidemiologists and molecular biologists sponsored by the World Health Organization's International Agency for Research on Cancer.

■ The Department of Radiologic Pathology held the Third Annual International Course in Radiologic-Pathologic Correlation in Madrid, Spain, from 24-27 June 1992. Dr. James G. Smirniotopoulos, LTC Mark J. Kransdorf, MC, USA, and Senior Scientist Alan J. Davidson, MD, participated. A former visiting fellow in the department, Josefa Galobardes, MD, lectured on thymic neoplasms. Dr. Galobardes prepared her lecture while at the AFIP. The course was attended by more than 400 Spanish radiologists and radiology residents.

■ The Department of Radiologic Pathology recently remodeled their Thompson Conference Room, which, for the past 40 years, has been the site of the world famous course in Radiologic-Pathologic Correlation. The construction of 14 additional seats now means that 148 residents will be able to attend this extremely popular course. Residents will also benefit from a new sound system and video projector.

Course director James Smirniotopoulos, MD, hopes that these new improvements will allow all interested radiology residents to attend one of the six-week courses held during the year. Radiology residency program directors should contact Renee Weidman, course coordinator, for further information. Registration for this course is open to all radiology residents, but may be made only through their program directors.



Anne Emshoff (L) and Jennifer Hyman.

## Registry of Comparative Pathology hosts summer research assistants

The Registry of Comparative Pathology is sponsoring two research assistants this summer to participate in collaborative projects with the Department of Cellular Pathology.

Anne Emshoff from Texas A&M University is working on improving immunohistochemical assays for infectious diseases of animals in the Division of Immunopathology.

Jennifer Hyman from the University

of Pennsylvania is studying the detection of *Toxoplasma gondii* infection in a variety of animals through the use of DNA technology (PCR). Her research is conducted in the Division of Molecular Pathology.

These researchers were selected from a highly qualified and competitive group of applicants. We value the enthusiasm, experience, and accomplishments they contribute to the AFIP this summer.

## Medical Examiners assist Panamanian authorities following airline disaster

Eight members of the Armed Forces Medical Examiner's staff recently deployed to the Republic of Panama to assist in the investigation of the worst airline disaster in that country's history.

On 6 June 1992, COPA airlines flight 200, en route from Panama City, Panama, to Cali, Columbia, disappeared from radar near the southern Panamanian border with Columbia. Subsequent search and rescue efforts confirmed that the airliner had crashed in dense mountainous jungle. There were 47 people aboard the craft, none of whom survived.

Because the aircraft was of United States manufacture, the National Transportation Safety Board and Federal Aviation Administration joined efforts with the Panamanian Direccion de Aeronautica Civil to determine, if possible, the cause of the crash. Due to the extreme difficulty in identifying the

victims of the crash, the NTSB and Panamanian authorities requested the assistance of the OAFME, acknowledged experts in dealing with this type of problem.

The team, posed below with Panamanian forensic pathologists and odontologists, consisted of (from left) CDR Arthur C. Burns, MC, USN; MAJ Theresa Gonzales, MC, USA; Maj Steven C. Cogswell, USAF, MC; LCDR Kari B. Reiber, MC, USN; William Rodriguez, PhD, forensic anthropologist; MAJ

Fredrick Hellman, MC, USA; and PH1 Rand Eshima, USN. Not pictured: MSgt William Junipher, USAF. Of the 47 victims of the disaster, 45 were recovered and brought to the Hospital San Thomas in Panama City. All but eight were identified.

The team provided valuable information to the investigators concerning the types of injuries suffered by the victims and offered insights into the sequence of events leading to the crash. Panama's Direccion de Aeronautica Civil formally thanked the team for their "magnificent collaboration" in the investigation of the accident.



## Museum, private sector collaboration produces new exhibit on dentures

### *Larger exhibit on dental labs is anticipated*

Working in partnership with the National Association of Dental Laboratories, AFIP's National Museum of Health and Medicine has produced a new exhibit entitled "Replacing a Lost Tooth," which focuses on the evolution of dentures. This small "demonstration" exhibit represents a first step toward the development of a major exhibit on the dental laboratory industry. As in all cooperative projects with the private sector, Museum staff maintained final editorial control of the exhibit's script and contents.

Central to the exhibit's message is the fact that dentures have always been a cosmetic aid as well as a practical tool. Potential customers wanted a device that would be made to look like their own teeth, which led some early denture makers to recycle teeth from human corpses. Others handcarved dentures from ivory or wood, which relied on springs to keep the plates in place. Sometimes, a hearty laugh would be enough to separate the product from the customer. Attempting to eat while wearing this device proved impossible.

By 1837, porcelain dentures were available to Londoners wealthy enough

to afford them. While some effort was made to match the natural color of the customer's teeth, knowledge about replicating the true colors of human teeth was limited. As a result, the man-made nature of the product was obvious to all.

In the 1850's dentures of vulcanite, a hardened rubber, made the technology affordable for people of modest means. Dental technologists seeking to evade the patent protections enjoyed by vulcanite developed celluloid dentures, which were far from perfect. Celluloid dentures often became brittle or developed a greenish hue over time, and heavy drinkers discovered that alcohol caused the product to dissolve.

"Replacing A Lost Tooth" features dentures from many different periods, including a pair worn by General John J. "Blackjack" Pershing. It also incorporates examples of the equipment used in the manufacture of dentures and photographs of early dental laboratories. Pleased by the quality of this exhibit, AFIP's Museum and the National Association of Dental Laboratories hope to collaborate on a second expanded version in the near future.

## Peter H. Bartels, PhD, delivers 8th Annual Ash Lecture

Over 250 invited AFIP staff members and guests heard Peter H. Bartels, PhD, deliver the 8th Annual James Earle Ash Lecture on May 27. Dr. Bartels, professor at the Optical Sciences Center and Department of Pathology at the University of Arizona, spoke on "Digital Imaging in Histopathology."

Dr. Bartels' broad research interests include the areas of quantitation of histopathologic and cytopathologic diagnosis, ultrafast scanning systems, and the methodology and applications in histopathology of automated reasoning, expert systems, and uncertainty management.



*WAGNER continued from page 1*

because our departments are largely organized by organ systems, the pathologist assigned to the case will be a system's expert. A significant number of our staff are nationally and internationally known pathology experts with many years of experience in their field." All cases are worked up to a greater degree for their educational and research value as well.

The Institute receives 45,000 to 50,000 cases annually, with roughly 68%

of them from federal (military, VA, and other) facilities. The remaining 32% are civilian cases, and they usually are of greater difficulty. Due to this, AFIP's staff of experts will often collaborate on diagnoses in order to provide contributors with a higher quality consultation.

The challenge for the AFIP today is to provide good service in a cost-efficient, acceptable time frame. A special working committee is now looking at our laboratory information system in order to process

all cases more quickly.

"We continue to provide a unique product and service at an acceptable cost," says Wagner. "In addition, we are making sure that the material submitted is examined correctly and expertly without disturbing the rights or confidentiality of the patient." The AFIP will continue to track, retrieve, and compare pathology cases in order to provide contributors with the finest in consultation services.

### **Cancer staging: future directions for the TNM classification**

Leslie H. Sobin, MD

The major accomplishment of the 1987 edition of the TNM classification was the unification of criteria for all site classifications, namely, the elimination of all variations that had developed over the years. The main directions that TNM is taking for the future are 1) verification of published classifications, 2) classification of new sites and tumor types, 3) addressing the integration of nonanatomic factors with TNM to achieve prognostic grading, and 4) application of TNM beyond pure clinical-pathological aspects to assess methods of early detection, quality of care, and population trends.

*Semin Surg Oncol.* 1992;8:107-110.

### **Comparison of Abbott fluorescence polarization immunoassay (FPIA) and Roche radioimmunoassay for the analyses of cannabinoids in urine specimens**

William T. Budgett, TSgt, USAF; Barry Levine, PhD; Allan Xu, PhD; and Michael L. Smith, PhD, LTC, MS, USA

Abbott fluorescence polarization immunoassay (FPIA) and Roche Abuscreen radioimmunoassay (RIA) were compared qualitatively with 142 urine specimens containing 11-nor-delta-9-tetrahydrocannabinol-9-carboxylic acid. Similar qualitative results were obtained in 132 specimens. When discrepant results were observed, all negative results were within 20% of the 100 ng/mL cut-off. We concluded that FPIA and RIA give comparable results to each other.

*J Forensic Sci.* 1992;37:632-635.

### **Juxta-articular myxoma: a clinical and pathologic study of 65 cases**

Jeanne M. Meis, MD, and Franz M. Enzinger, MD

We describe 65 cases of juxta-articular myxoma (JAM) that occurred in the vicinity of large joints, possessed histologic features of a myxoma, and were frequently associated with cystic changes that resembled a ganglion cyst. The vast majority of cases (57, 88%) occurred in the region of the knee; a minority involved the shoulder (three cases), elbow (three), ankle (one), and hip (one) regions. Patients' ages ranged from 16 to 83 years (median, 43 years; mean, 44 years) and nearly three fourths of the patients (72%) were male. Thirty-seven lesions presented as a swelling or mass, 21 were associated with pain or tenderness, and sizes ranged from 0.6 to 12 cm (median, 3.5 cm; mean, 3.8 cm). Duration of symptoms was highly variable, spanning from 1 week to 18 years. Fourteen JAMs were intimately associated with the meniscus and five of these had a concomitant tear; in five other cases JAM was an incidental finding at the time of total knee or hip arthroplasty for severe osteoarthritis. Of 29 cases with

follow-up, 10 (34%) recurred: five recurred once, two recurred twice, two recurred three times, and one recurred four times. While the majority of JAMs were correctly diagnosed as benign, a sarcoma was seriously considered or diagnosed in 15 (23%) cases.

*Hum Pathol.* 1992;23:639-646.

### **Toxicological findings in military aircraft fatalities from 1986-1990**

Kevin Klette, Barry Levine, Charles Springate and Michael L. Smith

Toxicological findings in all military aircraft fatalities investigated by the Division of Forensic Toxicology at the Armed Forces Institute of Pathology from 1986 - 1990 are presented. Carbon monoxide saturation levels greater than 10 % were found in 4 % of the 535 cases where appropriate specimens were collected. Positive ethanol findings were more indicative of postmortem formation than antemortem consumption. In only one case were abused drugs (cannabinoids in a passenger) detected. Other drugs identified included nicotine, chloroquine and over-the-counter analgesic agents, antihistamines, and sympathomimetic drugs.

*Forensic Sci Int.* 1992;53:143-148.

### **Review of the carotid artery loop procedure in sheep**

Michael S. Lagutchik, DVM; Jonathan W. Sturgis; Dale G. Martin, DVM, PhD; and John A. Bley, DVM

Carotid loop (CL) surgery involves the permanent externalization of a common carotid artery in a skin tube. The CL facilitates repeated access to the systemic arterial system for blood sampling and blood pressure measurement in laboratory sheep. It eliminates the need for arterial cut-downs and chronic indwelling catheters, reduces the risk of sepsis and infection, and adds flexibility to research protocols. The surgical procedure is aseptically performed under general anesthesia and involves isolation of the common carotid artery, creation of a bipediced skin tube, and permanent envelopment of the artery in the skin tube. The primary complication is ischemic necrosis with sloughing of the middle of the loop and is usually due to failure to adhere to the critical length-to-width ratio (2.5:1). We have performed 150 CL procedures with an overall success rate of 94%. Nine CL ablations were required, due to necrosis with exposure of the artery (7/9) or stricture formation with loss of patency (2/9). Twenty-two CLs developed complications secondary to partial necrosis, but did not require ablation. Results indicate that the CL is a reliable method to ensure repeated access to the systemic arterial system in sheep. A modification of the standard CL procedure in which the artery is surrounded by a skin tunnel rather than enclosed in a skin loop was performed in 10 sheep. Preliminary results indicate significant reduction in the incidence of complications associated with the standard CL.

*J Invest Surg.* 1992;5:79-89.



# Postgraduate Short Courses in Continuing Education Academic Year 1992

Course Title	Scheduled Dates	Location
Radiation & Cancer Chemotherapy Injury:		
Basic Principles of Etiology, Treatment & Diagnosis	29–31 August 92	University of California, San Francisco, CA
Anatomy, Histology, and Electron Microscopy of the		
Eye, Orbit, and Ocular Adnexa	29–31 August 92	Leavey Conference Center, Georgetown University, Washington, DC
Ophthalmic Pathology for Ophthalmologists	31 Aug – 4 Sept 92	Leavey Conference Center, Georgetown University, Washington, DC
Seminar in Pulmonary Diagnosis	1–4 September 92	Hyatt Regency, Bethesda, MD
Hepatic Pathology	9–11 September 92	Holiday Inn, Bethesda, MD
Conference on Quantitative Histopathology	9–13 September 92	Holiday Inn Crowne Plaza, Rockville, MD
Abdominal Imaging Review	12–13 September 92	Hyatt Regency, Bethesda, MD
Essentials in Forensic Pathology	12–16 September 92	Executive Tower Inn, Denver, CO
Morphologic Findings in Renal Disease	12–16 September 92	Washington Marriott, Washington, DC
Pulmonary Radiology	19–20 September 92	Washington Marriott, Washington, DC
Radiologic Pathologic Correlation	12–14 October 92	Orlando, FL
Placental Pathology	22–24 October 92	Holiday Inn, Bethesda, MD
Future Technologies for DNA Typing	26–27 October 92	Hyatt Regency, Bethesda, MD
Oral Pathology	26–30 October 92	Hyatt Regency, Bethesda, MD
Interpretation of Prostatic Biopsy	7–8 November 92	Washington Marriott, Washington, DC
Perspectives in Scuba Diving Safety	14–15 November 92	AFIP, Washington, DC
Update of Identification Methods	16–20 November 92	Old Town Holiday Inn, Alexandria, VA
Hematopathology	16–18 December 92	Marriott RiverCenter, San Antonio, TX

**For course descriptions and tuition information contact  
the Education Division at 301-427-5231.**

## Repository and Research Services

Recently, the Receiving and Accessions Division has been receiving a larger number of cases than usual that are not accompanied by the appropriate pathologic materials. Cases must be accompanied by at least the following minimum documentation and associated materials:

- 1) Completed AFIP Form 288-R, Military and/or Civilian Contributor's Consultation Request. In some instances, a personal letter from the contributor containing the patient's demographic data, clinical history, and accounting of the material being sent will be accepted in lieu of the Form 288-R.

- 2) A copy of the submitting pathologist's surgical pathology or autopsy report.
- 3) Microscopic glass slides

Many of our pathology departments require submission of paraffin blocks and/or frozen or formalin-fixed tissue. A number of the departments require submission of x-rays or other types of scans or imaging studies. Failure to submit all required material at the time of case submission will result in unnecessary delays in the processing of the case.

We encourage all contributors who have not already done so to obtain a copy of the newly revised AFIP Contributor's Manual. These can be obtained by writing the AFIP Research Office or calling (202) 576-2884.

# Instructions for Filling Out Application Form for AFIP Courses

1. **Course Fee:** Checks for all courses are to be made payable to the American Registry of Pathology (ARP). To safeguard your course space, we strongly encourage advance fee payment when application form is submitted, but not later than the Application Priority Deadline (does not apply to non-U.S. citizens).
2. **Application Priority Deadline:** Fifty percent of the course spaces are reserved for federal applicants and 50% for non-federal applicants until the Application Priority 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, Rm 266  
United States Information Agency  
301 4th Street, S. W.  
Washington, D.C. 20547  
FAX: (202) 619-4655

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 letter of application, attach a copy of course application form, a check drawn on a U.S. bank or International Money Order, 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:

International Training Program Manager,  
U.S. Army Health Professional Support Agency  
Attn: SGPS-EDI; International Training Officer  
5109 Leesburg Pike  
Falls Church, VA 22041-3258  
FAX: (703) 756-7535

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## APPLICATION FORM - AFIP COURSES

Course Title & Dates \_\_\_\_\_  
 Name (Last, First, MI) \_\_\_\_\_  
 Mailing Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone \_\_\_\_\_ Specialty \_\_\_\_\_ Board Status:  Certified  Eligible  
 Citizenship \_\_\_\_\_  Resident/Fellow  Friend of AFIP Membership # \_\_\_\_\_  
 Military/Federal Civilian Employees (Only): Rank/Civilian Grade \_\_\_\_\_  
 Service Agency: \_\_\_\_\_  
 Corps:  MC,  DC,  NC,  VC,  Biomedical/Allied Science  
 Payment Enclosed: (Payable in U.S. dollars only) Tuition \$ \_\_\_\_\_ DoD, VA, and PHS Fee \$ \_\_\_\_\_  
 Method of Payment:  Check/Money Order  MasterCard  Visa  
 Card Number \_\_\_\_\_ Expiration Date \_\_\_\_\_  
 Name as it appears on card \_\_\_\_\_  
 Signature \_\_\_\_\_

Make All Payments to: AMERICAN REGISTRY OF PATHOLOGY

Mail To: Armed Forces Institute of Pathology  
Education Division  
Washington, D.C. 20306-6000

Telephone: (301) 427-5231  
AUTOVON: 291-5231  
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The Director  
ATTN: AFIP-PA  
Armed Forces Institute of Pathology  
Washington, D.C. 20306-6000  
Telephone (202) 576-0233. AUTOVON 291-0233

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1. Abernathy CO, Zimmerman HJ, Ishak KG, Utili R, Gillespie J. Drug-induced cholestasis in the perfused rat liver and its reversal by tauroursodeoxycholate: an ultrastructural study. *Proc Soc Biol Med.* 1992;199:54-58.
2. Auclair PL, Goode RK, Ellis GL. Mucoepidermoid carcinoma of intraoral salivary glands: evaluation and application of grading criteria in 143 cases. *Cancer.* 1992;69:2021-2030.
3. Buck JL, Harned RK, Lichtenstein JE, Sobin LH. Peutz-Jeghers syndrome. *Radiographics.* 1992;12:365-378.
4. Coe JE, Ishak KG, Ward JM, Ross MJ. Tamoxifen prevents induction of hepatic neoplasia by zeranol, an estrogenic food contaminant. *Proc Natl Acad Sci USA.* 1992;89:1085-1089.
5. Kransdorf MJ, Meis JM, Jelinek JS. Myositis ossificans: MR appearance with radiologic-pathologic correlation. *AJR Am J Roentgenol.* 1991;157:1243-1248.
6. Meis JM, Enzinger FM. Proliferative fasciitis and myositis of childhood. *Am J Surg Pathol.* 1992;16:364-372.
7. Meyer CA, Kransdorf MJ, Moser RP Jr, Jelinek JS. Case report 716: soft-tissue metastasis in synovial sarcoma. *Skeletal Radiol.* 1992;21:128-131.
8. Montgomery EA, Meis JM, Frizzera G. Rosai-Dorfman disease of soft tissue. *Am J Surg Pathol.* 1992;16:122-129.
9. Mostofi FK, Sesterhenn IA, Davis CJ JR. Prostatic carcinoma: problems in the interpretation of prostatic biopsies. *Hum Pathol.* 1992;23:223-241.
10. Popek EJ. Case 5: granulomatous villitis due to *Toxoplasma gondii*. *Pediatr Pathol.* 1992;12:281-288.
11. Rosado-de-Christenson ML, Galobardes J, Moran CA. Thyoma: radiologic-pathologic correlation. *Radiographics.* 1992;12:151-168.
12. Rosado-de-Christenson ML, Stocker JT. Congenital cystic adenomatoid malformation. *Radiographics.* 1992;11:865-886.
13. Sabina RL, Fishbein WN, Pezeshkpour G, Clarke PRH, Holmes EW. Molecular analysis of the myoadenylate deaminase deficiencies. *Neurology.* 1992;42:170-179.
14. Specht CS, Varga JH, Jalali MM, Edelstein JP. Orbitocranial wooden foreign body diagnosed by magnetic resonance imaging. Dry wood can be isodense with air and orbital fat by computed tomography. *Surv Ophthalmol.* 1992;36:341-344.