

Indiana University School of Medicine

Department of Pathology & Laboratory Medicine



PATH TO THE FUTURE

Department Celebrates 100 Years

On September 16, 2006, the Department of Pathology & Laboratory Medicine celebrated its centennial with a celebration at the Clarian Pathology Laboratory. Coffee and pastries were served at 8:00 am followed by a 3-hour Continuing Medical Education series featuring Dr. Kathleen Warfel Hull, who spoke about the history of the Department; Dr. Daniel Smith, who presented a lecture on transfusion medicine, current collaborations and the status of future plans; Dr. Kenneth Ryder, who provided insight to the development of the Clarian Pathology Laboratory and the use of laboratory automation; Dr. Ruben Vidal, who spoke about deterioration of brain function in dementia; and Dr. Thomas Ulbright, who talked about difficult diagnoses in testicular cancer.

The CME program was followed by lunch and a chance for current members of the Department to socialize with many colleagues who had retired or moved to other positions, but who came to Indianapolis for the celebration. Finally the day was capped off by a tour of the new building, labs and facilities. We wish to thank all those who worked to make this Centennial Celebration a success and the many alumni who traveled to join us.



Dr. Hattab, Dr. Roth, Dr. Rhatigan, Dr. Eble, and Dr. Malik



Dr. Ryder Dr. Vidal Dr. Smith Dr. Warfel Hull

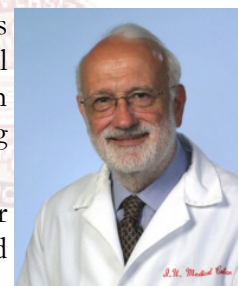


Continuing Medical Education (CME) Program

NIH Renews Grant to Indiana Alzheimer Disease Center

The National Institute of Health awarded its fourth consecutive 5-year Center Grant to the Indiana Alzheimer Disease Center. The original grant was funded in 1991 for the study of dementia and related diseases. Only 29 NIH-funded Alzheimer disease centers exist in the United States. To qualify for a Specialized Center Grant, an institution must provide resources that combine research, prevention, diagnosis and treatment facilities and must combine the efforts of scientific, behavioral and clinical experts to provide a complete program for studying, diagnosing, preventing and treating dementia.

The Indiana Alzheimer Disease Center at IU is directed by Distinguished Professor, Bernardino Ghetti, MD.



Dr. Ghetti

Inside this issue:

Inside this issue:	page
Department of Pathology & Laboratory Medicine Centennial Celebration	1
Renewal of Alzheimer Center Grant	1
Faculty News: Dr. Kasper retires, new position: Dr. Bonsib, Dr. Crabtree earns PhD, Dr. Cheng receives dual honors, Drs. Orazi and O'Malley publish book, new position: Dr. O'Malley	2
Timeless Achievement—Members of the Department reaching Milestones of Service	3
Sandy Rothenberger Retires	3
History of the Department of Pathology & Laboratory Medicine-Part 6 by Kathleen Warfel Hull, MD	3
Memoriam for J. Donald Hubbard, MD Emeritus Professor, 1920-2006	6
Invest in the Future of Pathology: mutually beneficial ways to give to the Department	7



Retirement: Dr. Linda Kasper

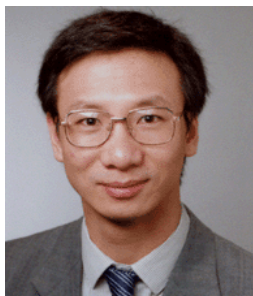


Linda Kasper, EdD is embraced by former students
photo by Robert Rothrock

Linda Kasper, EdD retired on November 30, 2006. Dr. Kasper was an associate professor and program director/coordinator of the Clinical Laboratory Science Program. Dr. Kasper joined the Department in 1970; her dedication to educating students earned her several teaching awards during her tenure here. Dr. Kasper says her fondest memories are of the dedicated professionals she has known here, she says she will miss these people and the opportunity to serve the healthcare needs of our patients now that she is retired. During her retirement, Dr. Kasper intends to rest, read, travel and spend time with her grandchildren. A reception in Dr. Kasper's honor was held in the Clarian Pathology Laboratory on November 28, 2006. Dr. Kasper's students and colleagues lined up for several hours to wish her well and thank her for her service to the University.

Dr. Liang Cheng Earns Double Honors

Liang Cheng, MD was chosen President of the International Association of Chinese Pathologists for 2006-2007. Dr. Cheng is an Associate Professor of pathology and urology and Director of the Clarian Molecular Pathology Laboratory.



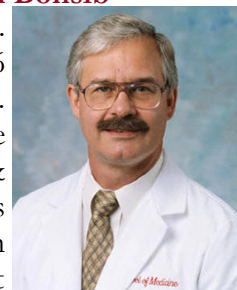
Dr. Cheng is also the 2006 award winner of the Arthur Purdy Stout Annual Prize which recognizes significant career achievements by a surgical pathologist under the age of 45 whose research publications have had a major impact on diagnostic pathology. The prize was created in memory of Dr. Arthur Purdy Stout who was one of the pioneers of oncological surgical pathology.

Congratulations to Dr. Cheng for both of these achievements.

Dr. Liang Cheng

New Position: Dr. Stephen Bonsib

A farewell reception was held for Dr. Stephen Bonsib on December 4, 2006 in the Clarian Pathology Laboratory. Dr. Bonsib will be leaving the Department of Pathology & Laboratory Medicine at the end of this year to begin a position as Chairman of the Department of Pathology at Louisiana State University Health Sciences Center in Shreveport, Louisiana. While here, Dr. Bonsib specialized in glomerulonephritis and renal tumors and was the Director of Surgical Pathology. We thank Dr. Bonsib for his services here and wish him happiness and fulfillment in his new position.



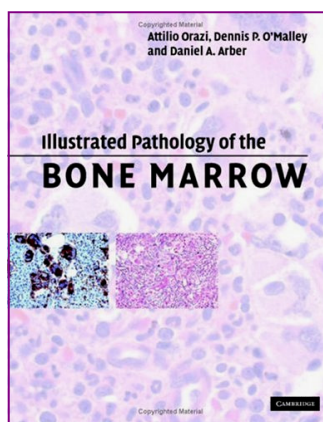
Stephen Bonsib, MD

William Crabtree Earns PhD Degree

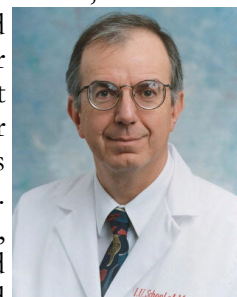


Bill Crabtree, PhD Cytotechnology Program Director and Associate Professor, received a PhD in Higher Education with a minor in Philanthropic Studies this May from Indiana University. Dr. Crabtree became interested in studying higher education to enhance his administrative skills as director of the Cytotechnology Program and to allow him to contribute in a more meaningful way as a faculty member. He mentioned that he views his studies in Higher Education to be complementary to his interest in Cytopathology and cancer cell research.

Dr. Orazi & Dr. O'Malley Publish Book



A new pathology textbook has been published by Department of Pathology and Laboratory Medicine Professor, Dr. Attilio Orazi and former Assistant Professor Dr. Dennis O'Malley. The Book, entitled Illustrated



Dr. Attilio Orazi

Pathology of the Bone Marrow was released on July 31, 2006.

New Position: Dr. Dennis O'Malley

Dennis P. O'Malley, MD left the Department of Pathology and Laboratory Medicine in September to become the new Medical Director of US Labs in Irvine, California. Dr. O'Malley joined our department in 2002.



Dr. Dennis O'Malley

Dr. John Eble Receives Honor for *Modern Pathology*



John N. Eble, MD accepted the Gold Medal of the International Academy of Pathology on behalf of the journal, *Modern Pathology*; Dr. Eble has been Editor-in-Chief since 2000. The medal is awarded for outstanding contributions to international pathology education and research. The medal has been awarded only 21 times in the hundred-year history of the organization. Congratulations to the entire staff of *Modern Pathology*.

Staff News

Timeless Achievements



On September 29th, 2006 Chancellor Charles R. Bantz recognized employees who had reached personal milestones of service and achievement at

Indiana University. Among those honored were several members of the Department of Pathology and Laboratory Medicine. We would like to congratulate Barb Lesko, manager of newborn screening for fifteen years of service; Marilyn Miller, also from newborn screening, for 20 years; Joyce Hardwick, clinical research associate with Dr. Benson, for 25 years; Rose Richardson, neuropathology, for 25 years; and Eleanora Moreland in pathology administration and payroll for 35 years service to the Department.

Sandy Rothenberger Retires

A retirement tea was held on November 10th, 2006 for Sandra Rothenberger, MS, CLS(NCA), MT(ASCP)SBB, who had been an employee of the Department since 1971. Sandy started as a medical technician while she continued her education and career advancement. Sandy was manager of Transfusion Medicine, Apheresis, Stem Cell/Bone Marrow and Coordinator of the Blood Bank for Clarian Pathology Laboratory, as well as teaching classes in immunohematology, serology and virology. The Department thanks Sandy for all her hard work and wishes her the best in her semi-retirement. Sandy continues her service with a part-time position as an instructor in the Clinical Laboratory Sciences Program.

History of the Department of Pathology & Laboratory Medicine

Written by **Dr. Kathleen Warfel Hull**

Part 6: The Department Splits



Dr. Makovsky

In 1944-45, there was a Long Hospital fellowship for the training of a pathologist in specialized diagnosis and research in cancer that was filled by Dr. Theodore Makovsky of Valparaiso, Indiana. It was made possible by the Indiana Women's Field Army for the Control of Cancer, a group that also funded the services of Miss Millicent Duckworth, who was hired as "Medical Center Research Worker" in the follow-up of cancer cases at the medical center and City Hospital clinics.³⁹

In 1945-46, the two divisions separated, and the department split. The Department of General Pathology continued with professor Forry as chairman. Others remaining in his department were Assistant Professor Micheal and Instructor Josephine Van Fleet. Two other instructors were on leave of absence because of World War II. The Department of Clinical Pathology was chaired by Professor Culbertson. Others listed in his new department were assistant professors Headlee and Mazzini, instructors Haynes, Lehman, and Ward, and



Forry



Micheal



Culbertson



Headlee



Mazzini



Haynes

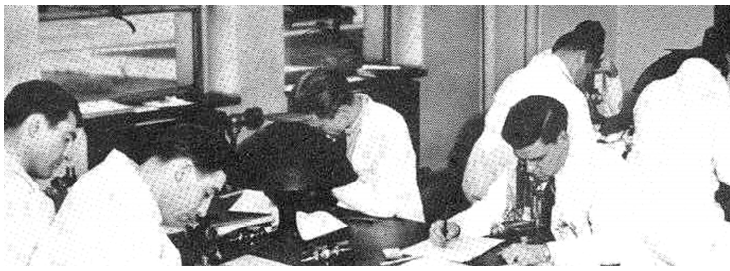


Lehman

fifteen assistants, presumably needed to keep the growing laboratory and medical technology program going. Clinical Professor Rudesill of the Department of Medicine and Dr. Micheal of the Department of General Pathology were also listed as adjunct or part-time faculty in the Department of Clinical Pathology.

The medical education programs of the departments continued much as usual. In 1948, there were about 150

39. Miss Duckworth later was hired by Ed Smith to help with the *American Journal of Surgical Pathology*. She subsequently served as secretary (administrative assistant) to the chairman, Dr. Joshua Edwards.



Medical Students in Pathology Lab 1940

medical students in each year. Pathology labs and lectures were given in Emerson Hall in the sophomore year of medical school. Dr. Forry was in charge of the lecture courses and Dr. Micheal of the labs. The lab sessions in Emerson were referred to as "Clinic G" - perhaps "G" for gross pathology. Dr. Forry reportedly was very energetic and had exuberant gesticulations and speech patterns characterized as "speech punctuated by snorts." He seemed eccentric to the students but was very kindly and helpful to residents.⁴⁰ Students took a pathology laboratory course in surgical pathology (4 credits) and in clinical pathology (3 credits) in the junior year. The lecture components of these courses officially was within the surgery and medicine departments, respectively, but the faculty in the departments of pathology participated.⁴¹

After Culbertson

On January 31, 1946, Dr. Culbertson resigned as chief of the Clinical and Research Laboratories at IU SOM to go to the Biological Research Division of Eli Lilly and Company, where he became director in 1949. Culbertson also resigned from the State Board of Health Laboratories in 1946, and they became independent of the IU SOM laboratories at that time. Incidentally, this was the same year that the College of American Pathologists (CAP) was formed at organizational meetings in Chicago.⁴²

John Lynn Arbogast, MD took over as director of the IU SOM Clinical Laboratories on February 1, 1946. Dr. Arbogast had been an assistant in the department in 1937-40, officially an assistant in clinical pathology though he



Dr. John Arbogast Katie Bailey

40. Related by Dr. Robert McDougall

41. Course M711 – Clinical Lab Diagnosis was listed in the Department of Medicine until 1950-51. Course S711 – Surgical Pathology was listed in the Department of Surgery until about 1952. Neuropathology was taught by the Department of Neurology and Psychiatry (which became two separate departments c. 1952) until 1953-54.

42. The CAP incorporated in Illinois on May 14, 1947.

43. Thurmond Rice 1948 article *The Central Laboratory*

44. According to Dr. Culbertson, he stayed on "on paper" to protect Dr. Arbogast's position as director of the laboratory in the era of Dr. Ed Smith. Arbogast reportedly was not aggressive, and Smith reportedly did not hold him in high esteem. At Lilly Research Labs, Culbertson worked on

also helped in general pathology. He was a 1936 graduate of IU SOM. Dr. Arbogast returned to the department in 1946 as associate professor of clinical pathology. He was helped as director by a secretary named Katherine "Katie" Bailey who was a long-time key member of the clinical laboratory staff. Dr. Arbogast continued as director of the clinical laboratories until 1965.

In 1947-48, assistant professor John David Stepleton, MD, who had been a resident in clinical pathology (1946-47), was named assistant director of the lab, but he resigned November 1, 1948. In 1947, the lab performed 177,00 tests, including 55,000 blood tests, 22,000 chemical tests, 50,000 urine analyses, 19,000 bacteriological tests, and 18,000 serologies.⁴³

Although Dr. Culbertson was at Eli Lilly and Co., he maintained ties with IU SOM and was still listed as the chair of the Department of Clinical Pathology until 1964.⁴⁴ Culbertson was professor of pathology until 1977, and then clinical professor emeritus.⁴⁵

Pathology Moves into "Fesler Hall"

The first State Board of Health Building on the IUMC campus was ready for occupation in 1939-40. The SBOH labs were located in it until a second new SBOH building was erected on the west edge of the campus and the state labs moved again in 1950. At that time, the IU SOM pathology program and clinical laboratory moved into the vacated space in the old SBOH building, which became known as the Laboratory Sciences Building (later named Fesler Hall). The department labs moved in 1950, the same year that the CAP first published *Basic Requirements of a Department of Clinical Pathology in a Modern Hospital*. In 1954, it first published its *Manual of Ethical and Contractual Relationships*.

The Department of Pathology headquarters were on the first floor along with the medical student teaching labs. The glass jar medical museum was on the lower level. Surgical pathology was on the third floor, and the main central laboratory, blood bank, and the medical technology program were on the fourth floor.⁴⁶ Blood was drawn for the blood bank in the Admitting Room in the lower level of the Clinical Building. In the beginning,

erythromycin, mumps vaccine, Salk polio vaccine, and duck egg rabies vaccine. He was Secretary-Treasurer of ASCP from 1949 until 1958, when the offices moved from Indianapolis to Chicago.

45. After his retirement from Lilly, Dr. Culbertson returned to campus to do research on free-living amoebae in the department in a new laboratory made possible by his own gift of \$1,000,000. He also donated \$1,000,000 to create the Culbertson Chair designated as a gift in support of a faculty position in medical student education. The first Clyde G. Culbertson Professor was Dr. John Pless, 1988-2005. Dr. Tom Davis was designated as the Culbertson Professor in 2005.

46. The blood bank later was moved to the first floor of Fesler Hall, perhaps in 1958 when the new Medical Sciences Building was opened.



Aerial View of Campus, 1952

before the technology explosion that was coming, the main laboratory was fairly simple. It performed mainly tests such as CBC, sedimentation rates, glucose, BUN, and some bacteriologic tests.⁴⁷

The autopsy room for Long, Riley, and Coleman Hospitals was still on the ground floor of the Clinical Building. Autopsy organs were brought over to the Laboratory Sciences Building for review.⁴⁸ Medical students were required to do autopsies. Medicine residents rotated on the autopsy service for two or three months and were expected to attend autopsies performed on the remains of their patients.

The Laboratory Sciences Building also held the dean's and school's administrative offices, headquarters for the departments of medicine and anesthesiology, and the headquarters for the cancer research project of the school. According to an article in the *Journal of the Indiana State Medical Association*, December 1950, "A new electron microscope, a rotary microtome and other equipment for the battle against cancer have been added to the labs of IUMC.⁴⁹" It is unclear whether this EM was directly part of the Department of Pathology.

In 1950, Orville T. Bailey, MD from Harvard University was named professor of neuropathology, but his appointment was in the Department of Neurology and Psychiatry, where he remained until 1959.

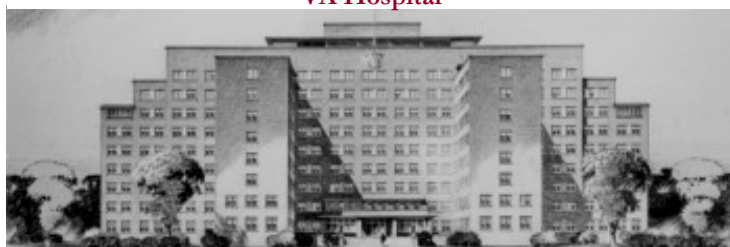


Dr. Orville Bailey

In 1952, the department took on more work. On the IUMC campus, a new state hospital for acute mental

diseases opened. There was a small laboratory on site at this facility, named La Rue Carter Hospital, but most of the specimens from this new hospital were brought to the central lab. The same year, the new 500 bed Veterans Administration Hospital on West 10th Street opened. IU SOM was invited to participate in the operation of the new VAH and the Veterans Hospital for chronic patients on Cold Springs Road.⁵⁰

VA Hospital



Continued in the Summer 2007 Issue

47. Dean Lukemeyer recalls that at this time, the exams in radiology were relied on more than the examinations in the clinical lab to aid with diagnosis.
48. Related by Dr. Robert McDougal.
49. These were gifts of the Indiana Elks Association, which granted \$95,000 during three years.
50. *JISMA*, Sept. 1951.

Path to the Future is published biannually by the Department of Pathology and Laboratory Medicine, Indiana University School of Medicine. Please send feedback and suggestions for stories to Patricia Mantel (pmantel@iupui.edu).

Indiana University School of Medicine
Department of Pathology and Laboratory Medicine
Van Nuys Medical Science Building, Room A-128
635 Barnhill Drive
Indianapolis, IN 46202-5120

In Memory of J. Donald Hubbard, MD, Emeritus Professor

Jesse Donald Hubbard was born in Switzerland County, Indiana in 1920. He served in the Air Force during WW II as a meteorologist. He earned a bachelor's degree from DePauw University and a medical degree from the Johns Hopkins University School of Medicine in 1951. He remained in Baltimore, Maryland for two years of pathology residency training at Union Memorial Hospital prior to moving to Indianapolis and finishing two more years of pathology residency at Indiana University School of Medicine.



Dr. Hubbard became a faculty member in the Department of Pathology in 1958, under the chairmanship of Dr. Edward Smith. This was a golden era for the department, in which Dr. Smith and others who had come from Washington University in St. Louis led the department into the forefront of pathology. The department was the home of the *American Journal of Clinical Pathology*; faculty members headed national organizations in pathology, and others achieved national acclaim for expertise in diagnostic surgical pathology and the emerging field of cytology.

As occasionally happens in academic departments when an outstanding chairman is replaced, things fell apart. Dr. Smith left Indiana University in 1962, and by the end of that decade many of the old and newly recruited faculty had gone elsewhere. Dr. Hubbard remained. He held down the fort nearly single-handedly, performing diagnostic work on surgical specimens and autopsy cases as well as teaching pathology courses for medical students, dental students, and allied health students. As the department was rebuilt under the chairmanship of Dr. Joshua Edwards, Dr. Hubbard served as deputy chairman.

He then was able to focus his efforts on medical education. For many years he served as course director for the two major pathology courses for medical students given in the sophomore year: General Pathology (C603) and Systemic Pathology (C604). This work entailed coordinating the lecture schedule and creating hands-on laboratory experiences for over 200 students – no mean feat. Dr. Hubbard maintained and built up the department's collection of formalin fixed autopsy teaching specimens for use in the student labs. A major part of the medical student lab exercises consisted of autopsy case studies in which pairs of students were presented with a patient's case history, autopsy organs, and microscopic slides of the organs. After an hour or so work on their own, the students reviewed the history

with family practice faculty and then reviewed the gross organs and slides with one of the pathology faculty members or residents. These case studies gave students a chance to practice making correlations between the patient's history and physical exam, the course of the patient's disease and therapy, and what the body might reveal at autopsy. Creating and maintaining the collection of these cases and other tissues and slides for the laboratory was a tremendous job that Dr. Hubbard performed with meticulous care to detail.

Dr. Hubbard was also course director of Pathology for Dental Students (C607). This course was given annually to about 100 sophomore dental students. Dr. Hubbard gave nearly all the lectures and provided weekly laboratory exercises with the assistance of some other pathology faculty and residents. He continued teaching the dental school course for years after others began to serve as course directors for the medical student offerings, so that decades of dentists trained in Indiana have distinct and fond memories of Dr. Hubbard.

In both lectures and the laboratory Dr. Hubbard expected much from his students. Though there were hundreds of them each year, he knew all of their names. He demanded active participation from each, and sometimes used props such as a hammer and a hook to encourage enthusiasm for the subject matter. He was not one to be rushed through a cursory examination of the topic of the day. In honor of his hard work and skill in the classroom, he was awarded the Golden Apple Award for teaching excellence by the Indiana University School of Medicine Alumni Association in both 1984 and 1991.

Dr. Hubbard was a quiet man with a mind and a way of his own. He never failed to appear at work on time, even in blizzards that others viewed as a marvelous excuse to stay home; he put on his galoshes and trudged to work. In better weather he was a well-known sight, pedaling his bicycle at a genteel pace to make the 11 mile round trip to work. He sat upright on a fat-tired, girl's model, purple bike with metal baskets on each side of the back wheel. He would stop to pick up aluminum and steel cans, putting them in shopping bags in the baskets. He estimated that he had ridden 30,000 miles to get to work during his tenure—more than enough to have circumnavigated the globe. His family reports that he invested the proceeds from selling cans he picked up in railroad stocks, and that their worth grew to over \$10,000.

When Dr. Hubbard became professor emeritus and ended his active teaching career in 1990, he left the building and essentially was never seen on campus again. Unlike other faculty retirees who visited the Department with great frequency, Dr. Hubbard simply left—refusing even to attend his own retirement party. Fortunately he

choose to attend a Luncheon for Retired Pathologists at the Skyline Club on September 6, 2006, an occasion that gave his colleagues a chance to see him rosy-cheeked, bright, smiling, and only slightly diminished from how we remembered him. Unfortunately, one month later he was killed in a motor vehicle accident while visiting relatives in Grand Rapids, Michigan.

Dr. Hubbard had a long and worthy career on the faculty, serving 44 years and enlightening thousands of students to the nature of human diseases. His dedication and the joy he took in teaching made him a model to be emulated. IUSOM created the J. Donald Hubbard Award which is presented to a student who shows outstanding achievement in pathology in honor of the academic role model Dr. Hubbard provided for so many years. He is remembered by his students, missed by his colleagues, and lives on in the hearts of his children, grandchildren, great-grandchildren, and other family members.

Prepared by:

Kathleen Warfel Hull, MD
Professor Emerita

James W. Smith, MD
Nordschow Professor Emeritus

John Pless, MD
Culbertson Professor Emeritus

Lawrence Goldblatt, DDS
Dean of the School of Dentistry

Invest in the Future of Pathology



Recent endowments to the Department have been provided by Drs. Ralph and Carolyn Lingeman and Dr. James W. Smith

Acts of giving carry the power to inspire and motivate. Gifts to the Department of Pathology & Laboratory Medicine help advance medical research, provide education to the pathologists of tomorrow, and improve clinical pathology. Potential investors impact the future of pathology here in Indiana and worldwide, as well as possibly gaining personal tax advantages. Arrangements can be made that offer such financial benefits as lifetime income and breaks from estate taxes.

Many options have been developed for providing gifts to our Department including plans allowing you to designate that your gift be used for education, research or patient care or ensuring that your gift is used where the need is greatest. Every gift fund requires a gift agreement that designates criteria for how the gift is to be used. The Office of Gift Development will help prepare this agreement to your specifications.

Endowed Funds provide long-term resources; these gifts are invested so that, over time, the principal grows faster than inflation, providing spendable income. The principal of an endowment is held in perpetuity; a portion of the earnings is channeled back into the fund to keep it growing. An average of 5% is distributed annually from the fund to fulfill the donor's purpose for the gift. Endowments generate income indefinitely, providing a legacy to the Department.

Cash Gifts are simple and qualify for federal tax deductions, often making out-of-pocket costs much less than the face value of the gift.

Gifts of Appreciated Property in the form of real estate or securities often provide greater tax benefits than cash gifts of equal value. The IRS allows deduction of the full fair-market-value up to 30% of your adjusted gross income. Amounts over this ceiling can be carried forward for up to five years.

Gifts of Tangible Personal Property such as furniture, equipment, and books are deductible for their full fair-market-value up to 30% of your adjusted gross income if documented by a legitimate appraisal and the gift relates to the mission of the Department.

Gifts of Closely Held Stock allow charitable deductions for the stock's appraised fair-market-value. This increases cash flow and allows avoidance of potential capital gains tax on the appreciated value of the stock.

Wills & Estate Plans retain use of your assets during your lifetime, yet allow you to make a significant gift to the Department. These gifts are usually made through a personal trust or will.

Life Income Plans allow you to make a substantial gift while receiving income from your donated assets. These plans provide for yourself and your heirs, avoid significant capital gains and estate taxes while ensuring that your philanthropic wishes are realized. A significant irrevocable gift is invested by the Foundation; then you or your designee receive income for up to 20 years or for the rest of your life, whichever comes first. The remaining principal is used by the Department according to your wishes. There are two types of life income trusts: annuity trusts, which pay a fixed dollar amount each year, and unitrusts, which pay a fixed percentage.

The Pension Protection Act of 2006 allows direct contribution of funds from IRAs to qualified charities. Individuals who are 70.5 years old may contribute up to \$100,000 from their IRA tax-free in 2006 and 2007. No tax deduction is allowed since no taxes were paid on this amount.

For more information on these and other types of gifts to the Department, please call **George Schenetzke** in the Office of Gift Development at **317-278-2121** or **800-643-6975** or email to gschenet@iupui.edu to discuss your wishes to provide for the future of pathology.