



PATH TO THE FUTURE

Winter Issue, 2004-2005

Volume 1 Issue 2

Mission Statement

The Department of Pathology and Laboratory Medicine will be an international leader, training outstanding physicians, scientists, and laboratory professionals, advancing understanding of mechanisms of disease and improving medical practice through research, and providing our patients and clinical colleagues with advanced diagnostic services, on-time, and at low cost.



Three generations of the Yum family

Inside this issue:

	page
Dr. Yum retiring after 35 years	1
Retirements Dr. Seo, Dr. Azzarelli	2
New Faculty Member Dr. Daniel S. Smith	2
Departmental Website Updated	2
Combined Laboratory Building Progress Report	2
Dr. Thomas Davis awarded Culbertson Chair of Pathology	2
Dr. Timothy Jones spotlight on resident research	3
History of the Department part 2 Dr. Kathleen Warfel Hull	3-6
More reception photographs	7

Dr. Moo-Nahm Yum Retiring after 35 Years at IU

Dr. Moo-Nahm (Phil) Yum, the director of the electron microscopy laboratory, as well as a surgical and renal pathologist with special qualifications in Immunopathology, was honored at a reception in the West Ball room of University Place Hotel on Friday, January 28th.

Dr. Yum received his medical degree from Yonsei University College of Medicine in Seoul, Korea, and completed residencies in pathology at Bronx Municipal Hospital, Albert Einstein College of Medicine in New York City, and Peter Bent Brigham Hospital in Boston, Massachusetts. Dr. Yum has been a member of the Department of Pathology and Laboratory Medicine for 35 years, the only position he has held for his entire medical career.

Dr. Eble, Department Chairman, described Dr. Yum as a patient and steady influence, and the man who taught him much of what he knows about pathology.

In addition to his clinical work, Dr. Yum performed research on the nephrotoxicity of drugs and electron microscopic studies of various cancers. He has published manuscripts in respected medical journals such as the *Journal of Urology*, *Archives of Surgery*, *Ultrastructural Pathology*, and *The American Journal of Kidney Disease*, and authored a chapter on *Diagnostic Electron Microscopy* in *Essentials of Anatomic Pathology* by Humana Press.

Dr. Yum expects to continue spending part of his time at the University until June, and looks forward to seeing the new consolidated laboratory in action.

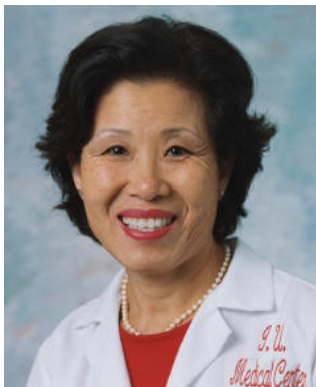


Dr. Yum, Mrs. Yum, and Dr. Seo pose in front of a slide of Dr. Yum's early days at Indiana University.

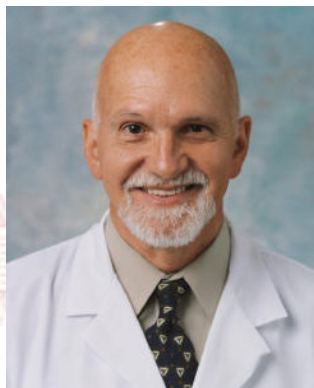


Dr. Lee enjoys the buffet served at Dr. Yum's retirement reception.

Retirements



Dr. In Sook Seo retired from her position as Professor and Director of Hematopathology at Wishard Hospital at the end of February. In addition, her work included electron microscopic studies, flow cytometry, and mentoring residents.



Dr. Biagio Azzarelli will be retiring at the end of March. Dr. Azzarelli has had a special interest in brain tumors and brain damage caused by perinatal anoxia. He has also been studying the effects of pollution on the development of Alzheimer's disease.

Department Website Redesigned and Updated

The website for the Indiana University Department of Pathology and Laboratory Medicine has been redesigned, expanded, updated, and published on the internet at: <http://www.pathology.iupui.edu/>.

If any problems or omissions are noted, please email pmantel@iupui.edu with your suggestions. We hope the revised site will provide more information about the IU-PUI campus, life in the Indianapolis area, news events in the Department of Pathology and Laboratory Medicine, our faculty, their research and accomplishments, and the variety of educational programs offered by the department.

Update on Combined Pathology Laboratory Building

Construction of the new facility has been underway for a full year and is still on schedule, despite weather delays in December and January. Builders are beginning to



West Side of Building March 12, 2005

cover the outside of the new building with precast panels that will form its outer skin. There were no changes in the construction cost for the project in December.

Dr. Daniel S. Smith Joins Faculty

The Department of Pathology and Laboratory Medicine welcomes Dr. Daniel S. Smith to its faculty. Dr. Smith had been Director of Transfusion Services at the Medical University of South Carolina. He received his BA, MA, and MD from Indiana University.



Dr. Smith has published **Dr. Daniel S. Smith** manuscripts in top journals with his most recent research focusing on seroconversion of A and B antigens of erythrocyte membranes to H antigens without extensive cell washing to enable transfusion across blood types. Dr. Smith is also interested in modifying the A and B epitopes of endothelial cell membranes for possible applications in solid organ transplantation.

Dr. Thomas Davis Receives Culbertson Chair



Dr. Thomas Davis was awarded the Culbertson Chair of Pathology in January. The Clyde Culbertson Chair of Pathology was created for the Department of Pathology and Laboratory Medicine through the generosity of Dr. Clyde Culbertson many years ago with the intent of providing recognition for teaching excellence. Congratulations to Dr. Davis for receiving this honor.

Upcoming Milestones

- ❖ Concrete floor and structure completed east 1/2 ("B" side) of building by February 2005.
- ❖ Exterior skin (precast, windows, brick) completed Spring/Summer 2005.
- ❖ Interior walls (west 1/2) completed Summer 2005.
- ❖ Interior walls (east 1/2) completed Fall 2005.
- ❖ Commissioning and staff training on equipment and system, Winter 2005-2006.
- ❖ Owner occupancy, Spring 2006.





Dr. Timothy Jones

Dr. Timothy Jones was awarded the prestigious Stowell-Orbison Award in genitourinary pathology for his first-author abstract, “Molecular evidence for the independent origin of multifocal papillary tumors in patients with papillary renal cell carcinoma.” at the 2005 United States and Canadian Academy of Pathology (USCAP) meeting in San Antonio. Dr. Jones is a third-year resident who earned his medical degree from the University of Kentucky College of Medicine. He first received the International Society of Urologic Pathology Excellence in Research Award (ISUP) for his abstract. The ISUP award is presented to the three best abstracts submitted by pathologists-in-training at the USCAP annual meeting. This is the second year in a row that Dr. Jones has received the ISUP award, but this year his abstract was judged to be the absolute best, earning Dr. Jones the Stowell-Orbison Award.

Timothy’s research is in the field of urologic pathology; he currently has two first-author papers in publication, one in the *American Journal of Surgical Pathology* and the other in *Clinical Cancer Research*, and another “in-press”

for *Clinics in Laboratory Medicine*; he wrote a book review for the *American Journal of Surgical Pathology* that was published in January.

In addition, Dr. Jones has co-authored seven other manuscripts that have been published or are “in press” at this time, and a number of papers that are currently being reviewed.



ISUP

The abstract for which he won the ISUP award involves a study of the origin of multiple renal cell carcinoma lesions in a single patient, specifically whether these multiple tumors represented intra-renal metastases of the original lesion or developed independently. By looking at genomic DNA for six markers of tumor suppressor genes and X-chromosome inactivation, Dr. Jones and his colleagues found that the multiple tumors displayed genetic differences which indicates that these multiple lesions have an independent origin.

Dr. Jones feels lucky to have been able to do a genitourinary pathology fellowship during his residency because it allowed him time for research and writing. He says he has had many great mentors in the department, who have helped him in his research, but especially wants to thank Dr. Cheng for his guidance.

History of the Department of Pathology and Laboratory Medicine

Part 2

Written by Dr. Kathleen Warfel Hull

(A partial sentence was accidentally eliminated in the first installment of this story. The last paragraph is repeated here for clarity.)

The earliest course in Pathology was “modeled closely after courses in the more progressive schools that have placed their clinical work on a scientific basis,” practically identical to the courses at Johns Hopkins University, Harvard University, Western Reserve University, and the University of Chicago. The course in Pathology for second year medical students included recitation and lab work in the following areas: general biology of disease-producing microorganisms (plus an elective course in “modern theories of immunity”); microscopic changes in elementary tissues in disease; gross and microscopical changes in the principal organs in disease (plus an elective course in the functional disturbances in these organs); serum pathology; and principles underlying surgical asepsis. Arrangements had been made with several hospitals for an “abundance of anatomical material.” The class in 1906 had 21 students, all male.

Part 2: The Move to Indianapolis: Dr. Alburger

In order that the Indiana University School of Medicine

could add clinical training and become a four year school, in 1906 “Friends of the University” purchased the old Central College of Physicians and Surgeons building in Indianapolis. A new entity called the State College of Physicians and Surgeons was organized as an affiliate of the Indiana University School of Medicine in Blooming-



The College Hospital Building
210-214 North Senate Avenue 1906-1908

History of the Department (continued)

ton. This affiliation made it possible for the Council on Education of the American Medical Association to recognize the Indiana University School of Medicine as being “in the first rank of colleges in the United States⁵.”

In summer 1907, the State College of Physicians and Surgeons fully united with the Indiana University School of Medicine under the name and style of the Indiana University School of Medicine. In April 1908, the other remaining school in Indianapolis, Purdue’s Indiana Medical College, united with Indiana University School of Medicine as well.⁶

From 1906 to 1908, the Indiana University medical school facility in Indianapolis was located in the College Hospital Building at 210-214 North Senate Avenue. This building had been erected in 1902, adjoining the Protestant Deaconess Hospital as the home of the former Central College of Physicians and Surgeons. On the first floor a large College Dispensary offered outpatient care, and there was a first floor laboratory for clinical microscopy (pus, blood, urine, sputum, gastric, feces, and others). This lab, however, was the territory of the clinicians, not the pathologists. There was no designated space for pathology. There was a surgical museum of specimens on the second floor, and the third and fourth floors held the hospital.

After the merger with Purdue’s Indiana Medical College, the Indiana University School of Medicine moved into the former’s larger building at the intersection of Market Street and Senate Avenue. This brick building had four stories and a basement.⁷ The first floor held a large outpatient dispensary and an amphitheater known as “the bullpen.” The second floor contained the medical museum, classrooms, and offices. The third floor held the library, a smaller amphitheater, and dissection rooms.



Indiana University School of Medicine
Market and Senate Streets

The fourth floor had laboratories for Pathology, Surgery, and Pharmacology.⁸ There were no hospital beds in the Market and Senate building, since students could now pursue in-patient studies at the Indianapolis hospitals.

In those days the best medical schools had large collections of pathology teaching specimens, collectively known as medical museums. The new Indiana University School of Medicine in Indianapolis was fortunate to inherit a large museum of teaching specimens for gross and surgical pathology. The collection of these specimens had been largely the work of Dr. Frank B. Wynn,⁹ Professor of Pathologic Anatomy at the Medical College of Indiana. Dr. Wynn was born in Brookville, Indiana in

⁵ April 29, 1907

⁶ The following individuals had been pathology faculty members at the precursor proprietary schools in Indianapolis:

Medical College of Indiana

Charles E. Ferguson, MD, Professor of Bacteriology and Director of the Bacteriological Laboratory

Frank A. Morrison, MD, Professor of Physiology and Surgical Pathology

Theodore Potter, MD, Professor of General Pathology and Bacteriology

Frank B. Wynn, MD, Professor of Pathology and Medical Diagnosis and Director of the Pathological Laboratory

Edmund D. Clark, MD, Professor of Surgical Pathology and Director of the Histological Laboratory.

Central College of Physicians and Surgeons

Albert E. Sterne, MD, Professor of Neuropathology and Diseases of the Mind and Nervous System, Willoughby Building, 224 N. Meridian Street

Thomas B. Noble, MD, Professor of Medical and Surgical Pathology, 13 W. Market Street

Indiana Medical College

William T. S. Dodds, MD, Professor of Clinical Pathology and Director of the Clinical Laboratory

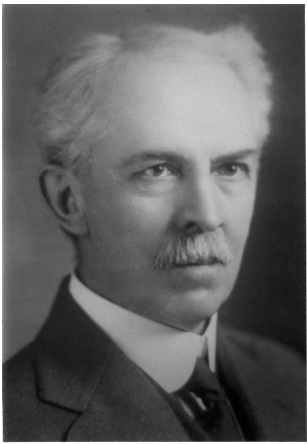
Charles F. Neu, MD, Professor of Pathology and Clinical Psychiatry

Roscoe H. Ritter, MD, Professor of Pathology and Clinical Medicine

⁷ According to Dr. Thurmond Rice’s memoir articles published in 1947, the basement was a place of “eerie darkness.” When the building later was remodeled to become a State House Annex, one or two forgotten cadavers were found in the basement vats.

⁸ *Indiana University School of Medicine Bulletin* June 1916 and Rice Memoirs, 1947

⁹ Dr. Wynn was multifaceted man. He was devoted to preserving natural resources and worked with groups to safeguard land in state and national parks. He died accidentally while climbing Mount Siyeh in 1922. Subsequently, the Department of the Interior named an adjacent peak in his honor: Mount Wynn in Glacier National Park at the mouth of Canyon Creek.



Dr. Frank B. Wynn

pathology.” After a fire destroyed the Medical College of Indiana’s library and medical museum in 1895, Dr. Wynn worked diligently to rebuild the library collection and to gather new autopsy and surgical specimens from area hospitals.

Basic classroom lecture and laboratory work was done at the Indiana University School of Medicine Building. Upper classmen in Indianapolis had clinical teaching at the College Dispensary, Bobbs’ Free Dispensary, the City Dispensary, Indianapolis City Hospital, as well as private physician’s practices at St. Vincent Hospital, the Eleanor Hospital for Sick Children, Maternity Hospital, and Methodist Episcopal Hospital.¹⁰ Postmortem examinations and lectures at the Central Hospital for the Insane (later named Central State Hospital) also were a “prominent feature” of the medical school curriculum. That hospital had an outstanding Pathological Department Building that had been built as a state-of-the-art educational and research building facility, opening in 1896.^{11 12}



Dr. Henry Alburger

Drs. Manwaring and Famulener left Indiana University School of Medicine in 1907, and Dr. Henry Rihl Alburger, MD was recruited as Professor of Pathology and Head of the Department of Pathology, beginning in the 1907-08 academic year.¹³ Dr. Alburger (1874-1948) was a graduate of the University of Pennsylvania School of Medicine in Philadelphia.

Beginning in the fall of 1907, there was a brief transition period during which the second year pathology course was given in both Bloomington and Indianapolis. For several years Dr. Alburger taught in Bloomington and Dr. Charles F. Neu was listed as Associate Professor of Pathology in Indianapolis, although he was not a pathologist, but rather a neuropsychiatrist. Dr. Neu had been Professor of Pathology and Clinical Psychiatry at the Indiana Medical College (the school that

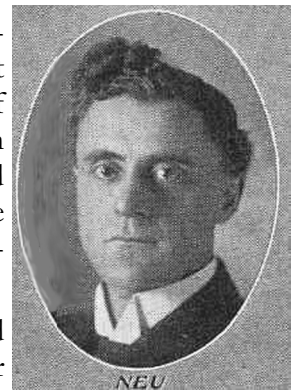
had affiliated originally with Purdue University.) He continued at Indiana University School of Medicine as a faculty member in the Department of Nervous and Mental Diseases, spending some time teaching at the Central Hospital for the Insane.

For 1910-11, Dr. Alburger is listed as being the faculty pathologist for both campuses, and Dr. Neu was not named in the Department of Pathology. According to a story told by Dr. Culbertson, that year Dr. Alburger rode back and forth between Indianapolis and Bloomington on a motorcycle to teach both classes of sophomore medical students. Dr. Augustus Clyde Shipp, a medical student, assisted Dr. Alburger as Instructor in Pathology.



Augustus Clyde Shipp

By 1911-12, only the first year of medical school was offered in Bloomington, and the second through fourth years were taught in Indianapolis.¹⁴



Dr. Charles F. Neu

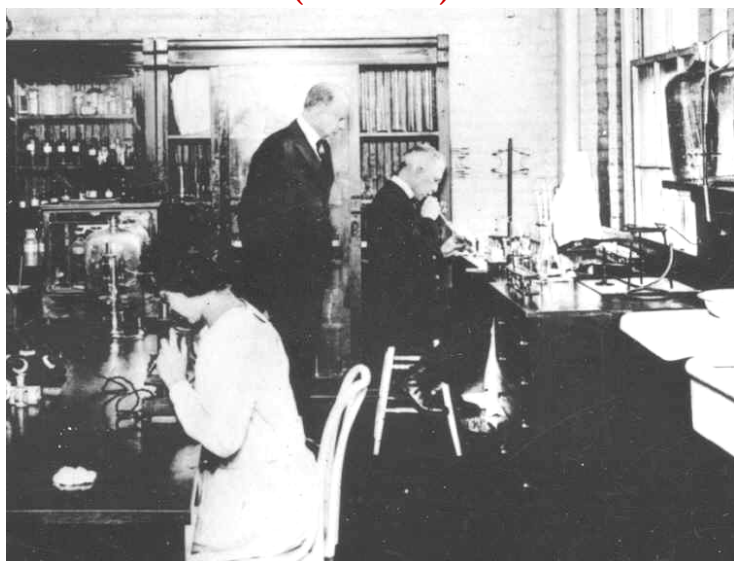
¹⁰ The City Dispensary and the Bobbs’ Free Dispensary, located in the Medical college of Indiana building downtown, had been started after the Civil War. Both provided free outpatient care for the poor. The later became known as “Bobbs” because Dr. John Bobbs endowed the clinic (\$2000) and left it to the City of Indianapolis in his will. He also left \$5000 for a free medical library. Dr. Bobbs (1809-1870) was famous for having performed the first cholecystostomy, a procedure to drain the gallbladder, which he performed on a female patient not in a hospital but in a rented room above the Vinton & Keefer’s drugstore in 1867.

¹¹ Indiana University School of Medicine medical students continued to have training in mental and nervous diseases at the Old Pathology Building until 1956.

¹² Pathologists at various hospitals in 1907 included the following:
City Hospital: William H. Foreman, MD; R.H. Ritter, PhD, MD; William T.S. Dodds, MD, and C.S. Little, MD
Eleanor Hospital for Sick Children: C.S. Little, MD
Bobbs’ Free Dispensary: H.S. Thurman, MD; H.E. Figg, MD; F.L. Truitt, MD; and Frank E. Abbett, MD.
St. Vincent Hospital: No pathologist listed
Central Hospital for the Insane: Charles F. Neu (neuropsychiatrist)

¹³ Dr. Manwaring (1871-1960) became Professor of Bacteriology and Experimental Pathology at Stanford University. He became well known as an immunologist, contributing to the field of immunological and allergic reactions. He also played a role in the early years of the American Association of Immunologists, founded in 1913.

History of the Department (continued)



Dr. Alburger and Dr. Langdon at City Hospital Lab

The Pathology Department space in Wylie Hall was refurbished for physiological chemistry. The Department of Pathology, still headed by Dr. Alburger, was now at home in the fourth floor of the Market and Senate medical school building. Although it was called the Department of Pathology, it was responsible for teaching both pathology and bacteriology. Dr. Harry K. Langdon was added to the departmental roster with the title Assistant Professor of Bacteriology. Dr. Shipp again was Instructor in Pathology, Bonelle William Rhamy, MD was Lecturer in Pathology, and there was one Associate in Pathology and one Associate and two Assistants in Bacteriology to complete the teaching faculty.¹⁵

Teaching occurred at the medical school building downtown at Market and Senate and in the Indianapolis City



**Indianapolis City Hospital
(later called Wishard Memorial Hospital)**

Hospital on West 10th Street (later known as Wishard Memorial Hospital), where there was a “newly equipped” laboratory of pathology with autopsy services. The department in Indianapolis taught both pathology and bacteriology to the medical students (total 466 hours) during the sophomore year. In the third year students viewed at least two autopsies and attended one gross pathology museum demonstration per week (total 22 hours). Third and fourth year students learned gross pathology from autopsy specimens “supplemented by mounted material from the large museum of the school.”

Clinical Pathology was taught by the Department of Medicine during the junior year. Surgical Pathology was taught by the Department of Surgery. Neuropathology was taught by the faculty of the Department of Mental and Nervous Diseases, which included Dr. Neu. Neuropathology clinics and autopsies were held at the Central Hospital for the Insane. Senior students on Medicine and Surgery rotations viewed autopsies at Indianapolis City Hospital. In 1911, Dr. Alburger and the “state pathologist” Dr. Simons prepared “an unusually excellent” scientific exhibit for the Indiana State Medical Association meeting at the Athenaeum in Indianapolis — so that any physician “desiring to do so will have ample opportunity to study at his leisure the many specimens which will be placed there . . . Under the splendid supervision” of Drs. Alburger and Simon.¹⁶ Pathologists played an important role in providing continuing medical education exhibits at the meetings of various medical associations and societies. Dr. Wynn was well-known as the individual in charge of the Scientific Exhibit at the national meetings of the American Medical Association from 1899 to 1916.

To be continued in the Summer Edition of “Path to the Future”

¹⁴ As of 1912 to 1913, the freshman year of medical school was offered only in Bloomington.

¹⁵ The Laboratory of Pathology and Bacteriology that examined specimens for the physicians of the state also had moved from Bloomington to Indianapolis.

¹⁶ Journal of the Indiana State Medical Association, September 15, 1911. The ISMA was founded in 1849.



Volume I, Issue 2

Page 6

Path to the Future is published for faculty, alumni and friends of the Department of Pathology and Laboratory Medicine, Indiana University School of Medicine. Please send feedback, address updates, 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



More Photos from Dr. Yum's Reception





Indiana University School of Medicine
Department of Pathology and Laboratory Medicine
Van Nuys Medical Science Building, Room A128
625 Barnhill Drive
Indianapolis, IN 46202-5120