

April 28, 2005

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Florida Pathology

A Note From Dr. Wilkinson

May 7, 2005 is the date for the 23rd Department of Pathology Research Day and Annual Dinner. It is a day to celebrate the completion of the academic year, and honor our graduating residents and fellows. The residents, with their faculty advisors, have prepared outstanding presentations to highlight the day. Several of these resident projects were recently presented at the US-Canadian Academy of Pathology meeting in San Antonio, Texas.

The Department has had several new initiatives in Anatomic Pathology. In collaboration with the Endocrine Division of the Department of Medicine, the thyroid nodule evaluation clinic has been established. Dr. Nicole Massoll, the pathology director of this clinic, has also established a Departmental FNA clinic. She was recently a featured speaker at the Florida Society of Pathologists Winter Meeting, discussing thyroid nodule evaluation.

Dr. William Donnelly, Director of the Pediatric Pathology and Autopsy services, is retiring from his full-time faculty position in July, after 34 years of service. Dr. Jacquelyn A. Knapik has recently been appointed as the

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2005 Resident Research Day Keynote Speaker

by Constance M. Yuan, MD, PhD

This year's keynote speaker for Resident Research Day is Dr. Richard Levenson, Director of Research for Biomedical Systems, Cambridge Research and Instrumentation (CRI). As an undergraduate at Harvard College, Dr. Levenson began his colorful career as a self-declared pre-med major, graduating with a B.A. in history and literature. After writing a senior undergraduate thesis comparing the English and French Restoration periods, he had plans to continue research in history at Cambridge University. However, an opportunity to work in the field

of tumor angiogenesis research at Children's Hospital, Boston, finally, in his own words, "got me into the science track for good." Having the chance to participate in the exciting and pioneering work being performed in Judah Folkman's laboratory, Dr. Levenson's subsequent history research at Cambridge "paled in comparison", and his career path in science was cemented.

He completed his medical school education at the University of Michigan, Ann Arbor and subsequently completed his residency in anatomic pathology at

Barnes-Jewish Hospital at Washington University Medical School, St. Louis. He stayed there to complete a fellowship in immunology. He was awarded the Wilmot Cancer Research Fellowship and from 1982 to 1986 served as a research fellow in the Dept. of Medicine at the University of Rochester, New York. His work primarily involved assessing protein tyrosine phosphorylation using two-dimensional gel electrophoresis systems. Interestingly, this was the same lab that eventually cloned the *cox-2* gene, which led the way to the development of drugs such as

Vioxx and Celebrex.

After obtaining board certification, he began his career as an assistant professor in the Department of Pathology at Duke University where he served as the director of the Two-Dimensional Gel Electrophoresis and Image Analysis Facility. It was at this point in time that his research interests began to crystallize. In 1996, he proceeded to Carnegie Mellon University's Center for Light Microscope Imaging and Biotechnology, where he worked for three years on applications of

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Recap USCAP

by Dominique Coco, MD

Many of our faculty, fellows, and residents participated in the 94th Annual United States and Canadian Academy of Pathology meeting this year in San Antonio. Besides watching the Spurs lose in the final minutes of the game to Memphis, here are some of the events in which the members of our department participated:

Platform Presentations

The Dual 5-alpha Reductase Inhibitor Dutasteride Induces Atrophic Changes and Decreases Relative Cancer Volume in the Human Prostate. - Kenneth Iczkowski, MD

Interobserver Reproducibility of a Proposed Classification of Focal Prostate Atrophy Lesions. - Kenneth Iczkowski, MD

Double Immunostaining for Cytokeratin and Basement Membrane Components is Useful in Detection of Microinvasion in



Drs. Al-Quran and Cardona discuss their poster with a visitor.

Cervical and Vulvar Intraepithelial Neoplasia. - Mara Rush, MD

Quantitative Assay for Hepatitis C Virus in Liver Biopsies. - Chen Liu, MD PhD

Case Presentation

Rosette-Forming Glioneuronal Tumor of the Fourth Ventricle. - Anthony Yachnis, MD

Poster Presentations

Adenoid Cystic Basal Cell Carcinoma of the Prostate Expresses



Dr. Yachnis chats with UF pathology alumnus Dr. Mousa Al-Abbadi.

HER-2/neu - Kenneth Iczkowski, MD

Pathology of the Endometrium in Women with a Thickened Endometrial Stripe on Ultrasound. - Mara Rush, MD

Measurement of Tumor Depth of Invasion is of Value in Risk Assessment of Vulvar Carcinomas. - Irena Rufforny, MD, Edward J. Wilkinson, MD, and Nicole Massoll, MD

The Value of a Limited 4-Antibody panel in the Detection of Hematolymphoid Neoplasia in

Bone Marrow and Peripheral Blood by Flow Cytometry. - Samer Al-Quran MD, Tisha Netzel MD, Diana Cardona MD, Raul Braylan MD.

Finally, the department joined with some of its alumni for a wonderful dinner at *Bigga on the*

Banks on Monday evening, celebrating another successful year in pathology. The department is proud of all those who participated in the meeting and would like to thank those alumni who attended the dinner. We hope to see you next year!



Drs. Cardona, Yuan, Reith, and Wilkinson enjoy dinner with former UF pathology faculty members Drs. Carlo Bifulco and Melissa Li.

Guest Lecturer Series

by Jingxin Qiu, MD, PhD

Dr. Arie Perry, Associate Professor and Medical Director of the Fluorescence In-Situ Hybridization (FISH) Laboratory in the Department of Pathology and Immunology at Washington University, was invited by the Department of Pathology and Evelyn F. and William L. McKnight Brain Institute to visit the University of Florida April 3-5, 2005.

Dr. Perry is an internationally known diagnostic neuropathologist with a focus on CNS tumors. He is currently a member of the Editorial Board of *Acta Neuropathologica*, *Journal of Neuro-Oncology*, and *Advances in Anatomic Pathology*. He is also an ad hoc journal reviewer for more than twenty basic science and clinical cancer research journals. In merely 13 years of his career, Dr. Perry has authored over one hundred peer-

reviewed publications, over twenty non-peer reviewed publications, and several manuscripts in review. He is primarily involved in translational research with the goal of developing new diagnostic and prognostic markers, which can be utilized in the clinical management of brain tumor patients. Much of his work contributed significantly to the development of the new WHO grading system for meningiomas.

During Dr. Perry's visit, he gave two lectures titled "Molecular Diagnosis of Gliomas" and "Meningiomas: Current Classification and Molecular Features" on April 4th. He discussed developments in the molecular diagnosis of gliomas and meningiomas, and the impact of genetic findings on grading and classification of meningiomas. Dr. Perry also gave the pathology

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FEMORS: Because hope is not an option

by Rachel Redman, MD

In the wake of a hurricane season not seen in 40 years, The Florida Emergency Mortuary Operations Response System (FEMORS) has hit the ground running. FEMORS is a volunteer organization of qualified forensic and mortuary professionals, developed in conjunction with the Florida Department of Health (DOH), to provide mass fatality assistance when an incident occurs and overwhelms local resources. FEMORS was created in July, 2002 under a Federal Bioterrorism Preparedness Grant from the Centers for Disease Control and Prevention. The grant funding is provided through the Florida DOH under a contractual arrangement with the University of Florida's William R. Maples Center for Forensic Medicine. During a mass casualty event, FEMORS members work to support the local Medical Examiner and provide technical assistance and personnel to recover, identify, and process victims' remains. Larry Bedore and Bruce Goldberger, PhD are in charge of this endeavor.

Modeled after the Federal DMORT mass fatality response system under FEMA and with less than 2 years in operation, FEMORS members were called to duty sooner than most expected with the hurricane season of 2004. On August 14, 2004, FEMORS members were placed on alert and activated within hours of Hurricane Charley's landfall in

Charlotte County, Florida. The experience gained from Hurricane Charley was soon utilized. On September 1, 2004, FEMORS members were again placed on alert as Hurricane Frances threatened Florida's east coast. Fortunately, there were few fatalities and FEMORS members were not activated. However, Hurricane Ivan was not too far behind.

When Hurricane Ivan made landfall on the Florida panhandle, FEMORS members were called into action. Over 60 fatalities were initially reported, overwhelming the local Medical Examiner's office. Dr. William H. Donnelly, UF Department of Pathology, was one of the members called to assist. This is his account of the event.

"Hurricane Ivan unleashed a fury unseen in the Florida panhandle in 25 years, as the category 4 hurricane's winds, torrential rains, tornadoes, and a huge storm surge swept over the barrier islands and the surrounding counties. Landfall on Thursday, September 16th, 2004 was followed by widespread havoc and destruction over a 150 mile length of coastline. When the horror passed, much of the beautifully historic community and local towns had been flattened or shredded by winds. Long lines for scarce gasoline and bottled water sprang up everywhere. All essential city services stopped. The city and none of the surrounding towns had any electricity causing

the shutdown of water and sewer plants that were also damaged severely. More than 40% of homes on the barrier islands were declared uninhabitable. Shredded trees smashed in homes everywhere; blue tarps covered thousands of homes. The major bridges into the city were smashed. Stores opened and gave food away. Damages were later estimated in the tens of billions of dollars and more than 15 lives were lost in the wake of the tornadoes, falling trees, and storm surge.

The District 1 Medical Examiner's (ME) Office in Pensacola requested assistance from FEMORS following reports of numerous casualties from the local law enforcement agencies. I was activated with the FEMORS team that arrived in the Pensacola region as the storm edges cleared the region. For the next three days, the team worked with the ME's office at Sacred Heart Hospital to perform autopsies on storm victims and help maintain services. The hospital initially had no electrical power or water. Three inches of water flooded the morgue. Without air conditioning, the work area rapidly became sweltering and humid. Finally, a limited electrical power source allowed performance of routine autopsies, and by midafternoon, hospital personnel had restarted the hospital generators that provided basic light and air conditioning, and the morgue refrigeration unit. Then the storm victims began to arrive, and

FEMORS ancillary personnel went into action."

With hardly a break from Hurricane Ivan, Hurricane Jeanne approached the east coast. On September 25, 2004, 63 members of FEMORS responded to email requests for preparedness status. Fortunately, despite hitting the already scarred Martin and St. Lucie counties, there were few storm related fatalities.

While Floridians hope to avoid another Hurricane season like 2004, FEMORS members are learning from the mistakes and accomplishments of this hurricane season to better prepare for the next event. FEMORS Commander Larry Bedore commented about the experience, "The summer of 2004 was a rare opportunity for a fledgling response team like FEMORS to participate in and learn from disaster experiences. The 2005 training session will focus on sharing those lessons with the entire team to improve readiness for the next wave of storms or any other mass fatality event where a Medical Examiner might need skilled forensic help on short notice. FEMORS is dedicated to continuing its readiness development because, as everyone should realize by now, **hope is not an option!**"

Exciting Exiting Class of Senior Residents

by Chris Price, MD

This year's exiting seniors are a diverse group who all have big plans after residency. While this year's class is not as large as the previous year's class, they will be missed just the same.

Steven P. Atkinson completes five years of AP/CP training and will be going to the University of Tennessee in Knoxville to begin a cytopathology fellowship. He graduated in 2000 from the Medical College of Georgia, after receiving a bachelor's degree in physics from Georgia Tech. Steve

has enjoyed his experience at the University of Florida.

Tisha C. Netzel completes her four years of CP training in 2005. She is a graduate of the University of Miami School of Medicine and has chosen to stay at UF as the hematopathology fellow. We have been lucky to have her as a reference when studying on CP rotations. She is an excellent teacher and the program has benefited from her willingness to teach our junior residents.

Samer Z. Al-Quran is well known

to the entire department. He initially came to the United States from Jordan as a resident in 1998 and after four years, went to M.D. Anderson Cancer Center in Houston, Texas to begin a surgical pathology fellowship. Following his return, he completed a fellowship in hematopathology here at UF. During his time here, he has given his fellow residents insight and practical tips on recognizing difficult diagnoses. Currently, he is considering returning to Jordan, but would also love an opportunity to practice in this area.

If you would like to learn more about our graduating residents or future graduates for possible positions in your program or firm, please email John Reith, MD, Program Director: reith@pathology.ufl.edu.

The Faculty Buzz

by James "Mike" Magill, MD

Another six months has passed and two major changes will be taking place over the next three months.

Martha J. Burt, MD will be joining the department in June as the Assistant Medical Examiner in Gainesville, Florida (District 8). In addition to being the Medical Examiner, she will instruct residents, fellows and medical students in autopsy and forensics. She will also hold an appointment as Clinical Assistant Professor within the College of Medicine. Dr. Burt graduated from Tulane University with a Bachelors of Science in Biochemistry and attended Oregon Health Sciences University School of Medicine. During medical school, she completed a Post-Sophomore

Pathology Fellowship. Afterwards, she trained at Hennepin County Medical Center, became Chief Resident during her fourth year, and rounded out her training by completing the fifth year at the University of Minnesota. In sunny South Florida, Dr. Burt did a fellowship in Forensic Pathology at the Miami-Dade Medical Examiner's Office and then joined the staff as an assistant Medical Examiner. We would like to welcome Dr. Burt to the team at University of Florida.

James "Ken" Massey, ME, Associate in Pathology, will be retiring after 29 years of service as the Director of Computer Resources. Life after retirement includes moving to Keystone Heights, continuing his grant-funded research and writing. Thanks for all the help Ken!

Dr. Wilkinson

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Director of the Autopsy Service.

The Department now has a Forensic Pathology Unit, and Dr. Martha Burt will be joining the faculty as a forensic and autopsy pathologist. Drs. James M. Crawford and William Donnelly will also serve in this new unit in collaboration with the Medical Examiner, Dr. William Hamilton.

The Department's UF-Diagnostic Reference Laboratories (UF-DRL) now shares a building with the

Shands Laboratories at Rocky Point. With both laboratories, we now have significant immunohistochemistry capability. In addition, several new molecular tests have been added, including FISH testing for HER-2/Neu. The Department, through the UF-DRL, now offers a wide range of surgical pathology and consultation services (phone: (352) 265-9900).

Please consider joining us at Resident Research Day, and the evening dinner to follow and celebrate with us in honoring the graduating residents and fellows.

What is he doing?

Dr. Donnelly prepares a sample for scanning electron microscopy by placing it in a vacuum evaporator before sputtering it with gold palladium, circa 1977.



2005 Resident Research Day

by Diana Cardona, MD

The excitement is growing as the 23rd Annual Resident Research Day Symposium approaches. This day-long event provides our residents and fellows the opportunity to share their work with the department, alumni and area pathologists. Some of the topics being covered include:

The Value of a Limited 4-Antibody Panel in the Detection of Hematolymphoid Neoplasia in Bone Marrow – Samer Al-Quran

The Dual 5-alpha-reductase

Inhibitor Dutasteride Induces Atrophic Changes and Decreases Relative Cancer Volume in Human Prostate – Jingxin Qiu

Intra-operative Analysis of Lumpectomy Margins: How Effective and at What Cost? – Dominique Coco

Heavy Chain Expression in Malignant and Reactive Lymph Nodes – David Grier

Using Flow Cytometric Analysis to Detect Early Stem Cell Diseases – Tisha Netzel

The Use of P16INK4A in Differentiating Human Papilloma Virus (HPV) from Non-HPV Related Cervical Lesions – Irina Rufforny

Tumor-selective Measurement of Cell Proliferation by Ki-67 and DNA S-phase in Non-Hodgkin B cell lymphomas: Are the Two Methods Equivalent? – Dorothy Kurylo

In addition, we are honored to have Dr. Richard Levenson, from Cambridge Research and Instrumentation, Inc., as this year's guest lecturer. The day concludes

with a banquet, to be held at the beautiful Savannah Grande, in recognition of our presenters and graduating residents. Moreover, several awards will be given in acknowledgment of this successful academic year. Alumni and area pathologists are invited. For more information regarding the Resident Research Day Symposium, please feel free to contact Betty Douglas at 352-392-4495.

Resident Research Day Keynote Speaker

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multispectral techniques in biology and pathology. He also continued to provide consultation for imaging technologies as adjunct faculty for both Duke University and the University of Pittsburgh. In 1999, he joined Cambridge Research and Instrumentation (CRI), where he currently serves as director of research for biomedical systems. Whether he is chairing the Multispectral Imaging conferences at optics meetings or presenting in more applied forums, such as American Association for Cancer Research (AACR), College of American Pathologists (CAP) and United States and Canadian Academy of Pathology (USCAP), he has been actively involved in finding applications for this new technology. Dr. Levenson has

served on multiple study sections for the National Institute of Health (NIH), National Cancer Institute (NCI) and National Science Foundation (NSF). He holds a patent for his High-efficiency Multiple Probe Imaging System, and has authored or co-authored numerous publications emphasizing the numerous biomedical applications of spectral imaging.

During his time at CRI, he has watched multispectral imaging and advanced image analysis evolve from an "exotic technique" into technology that is entering "the threshold of mainstream". Additionally, his work at CRI has allowed the creation of successful federally funded academic collaborations. Among other things, he is currently involved in multiple phase I and II studies

examining application of spectral imaging in neurobiology, in phenotypic analysis of cancer cells, and in conjunction with genetic algorithms and tissue arrays in breast cancer. His NCI funded collaboration with the University of Florida, as well as other academic institutions, seeks to develop hematopathology-based tools. Specifically, he is currently collaborating with Dr. Raul Braylan, on a project measuring Ki-67 expression on cells co-labeled with antibodies for a specific membrane antigen, in order to better calculate tumor specific growth fractions in formalin-fixed, paraffin-embedded lymphoma specimens. In addition, they have been awarded a grant to assess the utility of spectral imaging in automated counting of leukemic blasts in sections of bone marrow with the use of multiple cell

membrane stains. Dr. Braylan has noted that this technology, which allows analysis of multiple cellular antigens on a single slide, is comparable to "flow cytometry on tissue sections."

Ultimately, the goal of these collaborations is the creation of an FDA-sanctioned instrument for clinical work, with multiple biomedical applications relevant to many different pathology subspecialties. The University of Florida Dept. of Pathology is honored to have Dr. Richard Levenson as the keynote speaker for 2005 Resident Research Day. We welcome Dr. Levenson to Gainesville and look forward to hearing his unique perspective on clinical applications of image technology in Pathology.

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Guest Lecturer Series

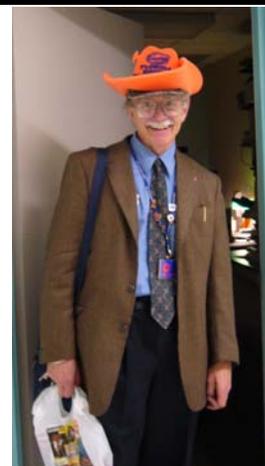
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residents a Neuropathology Unknowns Conference on April 5th in which he presented ten interesting neuropathology cases (with the slides and brief histories available for the residents to preview in advance).

At lunch on April 5th, Dr. Perry demonstrated his professional vocal talent by singing three songs

in which he filled the lyrics with neuropathology diagnoses. For example: “Craniopharyngioma”, set to the music of “Una Furtiva Lagrima” from “Elixir of Love” by G. Donizetti; “Toxoplasmosis”, set to the music of “O Sole Mio” by E. di Capua; and “PML”, set to the music of “Bring Him Home” from “Les Miserables” by Claude-Michel Schönberg. It was quite entertaining.

If you are interested in attending future lectures by guest speakers, email Betty Douglas: douglas@pathology.ufl.edu.



Dr. Croker reports for duty in Gator country.