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PATHBEAT

The Newsletter of the Department of Pathology
University of Iowa Carver College of Medicine

INSIDE THIS ISSUE

Faculty Focus



Robert A. Robinson

Dr. Robinson recently celebrated the completion of his first book entitled "Head and Neck Pathology: Atlas for Histologic and Cytologic Diagnosis"

Robert A. Robinson, MD, PhD

Professor of Pathology and Oral Pathology, Radiology and Medicine
Medical Director of [UI Diagnostic Laboratories](#)

With over 25 years of experience as physician, teacher, researcher, speaker, and author, Dr. Robert A. Robinson has a very active role in the UI Department of Pathology, Carver College of Medicine, at the University of Iowa Hospitals and Clinics.

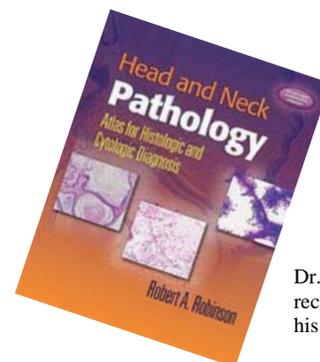
Dr. Robinson received an M.D. from the University of Missouri-Kansas City, a Ph.D. from the University of Minnesota, and completed a Pathology Residency at Mayo Graduate School of Medicine.

Dr. Robinson currently holds a faculty position as Professor of Pathology in the Carver College of Medicine and a secondary appointment in the Department of Oral Pathology, Radiology and Medicine in the University of Iowa College of Dentistry.

Dr. Robinson practices general surgical pathology and cytology, but specializes in diseases of the head and neck. Dr. Robinson also serves as the Medical Director of UI Diagnostic Laboratories (UIDL) where he leads the growth and expansion of the department's national reference laboratory outreach program.

Dr. Robinson recently celebrated the completion of his first book entitled "Head and Neck Pathology: Atlas for Histologic and Cytologic Diagnosis" which has been published and distributed by Lippincott Williams & Wilkins, (JAMA Review: <http://jama.ama-assn.org/cgi/content/full/303/18/1867-a>) Dr. Robinson has over 150 publications and has made numerous presentations at national CME meetings.

He is an active member in multiple professional societies including the Iowa Association of Pathologists, CAP, ASCP, and USCAP, among others. Dr. Robinson was also nationally recognized for his expertise by "Best Doctors in America". 2009-2010.



Dr. Robinson recently completed his first book.

Commentary

Cancer Cytology

December 23, 2010

The recent accumulation of epidemiologic and molecular research focused on nonsmall cell lung cancer (NSCLC) in combination with the development of novel/targeted therapies has caused pathologists to critically evaluate the issue of the histologic subclassification of such tumors. The use of the generic term NSCLC, once fully endorsed and accepted by our oncology colleagues, has recently been taken to task, and we are being asked, “Can you tell if it is a squame or an adeno?” by our clinical partners on a routine basis. This shift in framework in the diagnostic reporting of lung cancer poses practical challenges in the arena of diagnostic pulmonary cytology. Although cytology is an excellent discriminator of small cell carcinoma versus nonsmall cell carcinoma, it is less reliable in the subclassification of NSCLC.¹ Furthermore, we are being asked to provide molecular-level information on small biopsy specimens (epidermal growth factor receptor [EGFR] gene mutations, KRAS gene mutation, ALK-EML4 gene fusion, etc), which is even more problematic for many cytologic specimens (aspirates, brushes, washes) that may have very limited residual specimen for testing. How does all this impact the day-to-day sign out of pulmonary cytology specimens? A few points for consideration are presented below. The reader can draw his or her own conclusions, and we will welcome a spirited and critical debate in this journal.



Michael B. Cohen



Jamie A. Weydert

Neoplastic Pulmonary Cytology: Why All the Fuss Over “NSCLC”?

Michael B. Cohen, MD and Jamie A. Weydert, MD

1. What are the most important goals of sampling a pulmonary mass via aspiration or exfoliative cytology techniques?

The primary goal is to establish, with certainty, the biologic nature of the mass; benign (eg, inflammatory) versus malignant. If a lesion can be placed into the “malignant” category, then the second objective is to determine whether it is a primary or metastatic lesion. Ancillary studies, such as immunocytochemistry, can be very helpful in this regard, particularly when the clinical picture is unclear, and are worthwhile uses of residual material. When the lesion is a primary lung tumor, the distinction between small cell and nonsmall cell histology

is important for proper classification. These diagnostic objectives have not changed despite the molecular-driven changes in pulmonary oncologic practice.

2. What is the clinical significance of distinguishing NSCLC subtypes on cytologic specimens?

The principal (albeit not sole) driver of the interest in specifying subtypes of NSCLC in pathology reports is the advent of bevacizumab (Avastin), a vascular endothelial growth factor (VEGF) receptor inhibitor, as a treatment of NSCLC. Briefly, bevacizumab was found to have an unacceptable risk of life-threatening pulmonary hemorrhage in patients

who have squamous cell (compared with nonsquamous cell) morphology. Data on bevacizumab were limited by the relatively small number of patients studied and by the lack of correlation to other nonhistologic factors (ie, tumor size, location).² Nonetheless, pathologists have been tasked with trying to separate squamous and nonsquamous, ie, adenocarcinoma, histologies on biopsy and cytologic specimens. The use of ancillary studies, such as p63 (squamous cell marker) and TTF-1 (thyroid transcription factor 1, also known as NKX2-1, a marker of pulmonary adenocarcinoma) have been advocated by some as a surrogate for morphologic classification.³ The key question becomes, “Should limited material be sacrificed for this type of ancillary testing to determine eligibility for a single, expensive, treatment modality?” Perhaps this question is better addressed by asking another question, “Does a generic diagnosis of so called ‘NSCLC’ preclude the patient from being evaluated for surgical therapy, radiation therapy, or chemotherapy?” The answer, of course, is “no”. The issue of “best use” of residual cytologic material is addressed in our final point of consideration below.

3. What molecular information do oncologists need to treat advanced/metastatic NSCLC?

Targeted therapy has emerged that can extend survival in patients with NSCLC, depending on the type of molecular abnormality within the tumor clone. Molecular testing for EGFR Her-1 mutations and/or

Kirsten-ras (KRAS [rat sarcoma]) mutations is quickly becoming a practice standard, and testing for the anaplastic lymphoma receptor tyrosine kinase-Echinoderm microtubule-associated protein-like 4 (ALK-EML4) gene fusion may be joining this list.^{4,5} Cytology specimens can be adequate for this type of testing, and this is an area of both challenge and opportunity for pathologists to enhance patient care. The challenge is to provide a means by which adequate material can be obtained for these important molecular studies. Possibilities include increased use of immediate specimen evaluation for adequacy by pathologists and the use of novel specimen-preservation techniques.^{3,6} One need only to examine the success of reflex human papilloma virus (HPV) testing in liquid-based collections in cervical-vaginal screening to see how alterations in cytologic methods can be used to enhance patient care in the setting of new epidemiologic and molecular knowledge of a common disease. Although EGFR and KRAS represent the “now” of molecular testing in NSCLC, the field of targeted therapy is rapidly evolving and, ideally, residual material in cytologic specimens will be available for future retrospective testing as new agents become available.

In summary, it is our opinion that neoplastic pulmonary cytology maintains its role in medicine as a useful, sentinel, diagnostic method of documenting malignancy. The use of the generic term NSCLC, however, is increasingly being called into question. Although the

diagnosis of NSCLC may be reasonable, pathologists are strongly encouraged to offer a more precise morphologic classification, if possible. Molecular testing should be performed on newly diagnosed NSCLC, and pathologists are well suited to provide guidance in optimizing cytologic material collection and preservation to meet these patients’ care needs.

[Cancer Cytopathol.](#) 2011 Feb 25;119(1):3-4. doi: 10.1002/cncy.20131. Epub 2010 Dec 23.

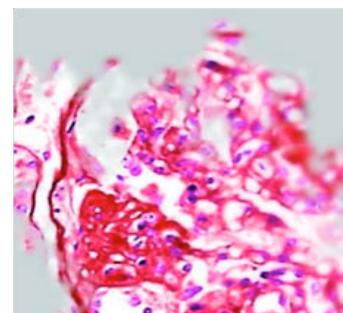
Neoplastic pulmonary cytology: Why All the Fuss Over “NSCLC”?

[Cohen MB, Weydert JA.](#)

Department of Pathology, University of Iowa, Iowa City, Iowa. michael-cohen@uiowa.edu.

PMID: 21319309 [PubMed - in process]

Targeted therapy has emerged that can extend survival in patients with NSCLC...



UIDL Corner

NEW: 4th Generation HIV Antigen/Antibody (Ag/Ab) Combo

The UIHC Core Clinical Chemistry Laboratory is now running the **Abbott Diagnostics' HIV Antigen/Antibody (Ag/Ab) Combo, an automated FDA-approved assay that detects both antigen and antibody in patients infected with either HIV-1 (group M and O) or HIV-2.** For antigen detection, the assay uses monoclonal antibodies directed against a highly conserved p24 peptide sequence of HIV-1 and HIV-2.

A positive Combo assay indicates either acute or chronic infection with HIV-1 and/or HIV-2. Relative to other HIV screening tests such as ELISA or OraQuick that detect antibodies against the virus, the Combo assay **shortens the "serological window", reducing the chance of a false-negative result** in a patient who has not yet produced enough antibodies to be detected with ELISA or other tests for anti-HIV antibodies.

The antigen-antibody combination tests are designated **"fourth-generation" HIV tests** and have been available in Europe for nearly a decade, and are now considered standard of care in Great Britain, France, and Germany. The Centers for Disease Control and Prevention (CDC) has actively worked since 2007 to encourage the marketing of fourth-generation HIV tests in the United States.

Like many other HIV screening tests (including ELISAs), the Combo assay is not approved for children less than two years old. For HIV screening in children less than two years, PCR testing is often used. Consultation with pediatric infectious disease specialists is recommended if unsure about testing approaches in children less than two years old.

UIDL Test Directory: [HIV Antigen/Antibody Combo, Plasma](#)

NEW: Lamellar Body Count (Fetal Lung Maturity)

Effective Monday, October 25, 2010, the UIHC Core Laboratory changed the main method used to assess fetal lung maturity by analysis of amniotic fluid. The older, discontinued test was an Abbott Diagnostics assay that measures the surfactant/albumin ratio. **The new assay is “LAMELLAR BODY COUNT”, which measures 1-5 micron diameter particles of surfactant (lamellar bodies) that increase throughout gestational age and correlate with lung maturity.** The analysis of lamellar bodies will be done in the Hematology laboratory.

For a reference range, each result will have appended a table relating percent risk of respiratory distress syndrome based on lamellar body count and gestational age (in weeks). This table is based on a published study (Karcher R et al. Gestational age-specific predicted risk of neonatal respiratory distress syndrome using lamellar body count and surfactant-to-albumin ratio on amniotic fluid. Am J Obstet Gynecol 193(5):1680-1684, 2005).

Like the surfactant/albumin ratio test, the lamellar body count cannot be performed with amniotic fluid contaminated with blood or meconium. We will continue to offer the Phosphatidylglycerol (PG) assay on amniotic fluid, which can be used if the sample is contaminated with meconium or blood. **UIDL Test Directory: [Lamellar Body Count](#)**

NEW: Ethylene Glycol Immunoassay, Human Specimens

The UIHC Core Clinical Chemistry laboratory has introduced an immunoassay for **Ethylene Glycol, the toxic component of most automobile antifreezes.** This new assay has a rapid turnaround time compared to the more labor-intensive gas chromatography method. There are two ways this assay will be performed:

1. Following clinician order.
2. Automatic reflex order when the “Ethanol Volatile Panel” is ordered and the unexplained osmolar gap (including correction for plasma ethanol, if present) is greater than 15.

An ethylene glycol plasma concentration of 10 mg/dL or greater is considered a critical value and will be reported to the ordering clinician.

Currently, the pathology resident on-call is notified when there is a high unexplained osmolar gap. With the introduction of the ethylene glycol immunoassay, the pathology resident will be contacted only if osmolar gap is still greater than 15 after determining the ethylene glycol plasma concentration and estimating the contribution of ethylene glycol to plasma osmolality.

The ethylene glycol immunoassay will NOT detect methanol, isopropanol, or propylene glycol, which still require gas

chromatography analysis for quantitation. Toxicity by these other alcohols and glycols are not common, but do occur and can be clinically serious.

Our retrospective analysis from 1996-2010 revealed 10 confirmed methanol and 15 confirmed isopropanol ingestions at the University of Iowa Hospitals and Clinics (i.e., 1 or less per year). If there is a persistent high unexplained osmolar gap and/or clinical suspicion of ingestion of methanol or isopropanol, the gas chromatography analysis can still be ordered after consultation with the pathology resident or attending.

Other explanations for high unexplained osmolar gap include heavy ethanol ingestion (with ethanol metabolites and/or ketoacidosis), mannitol, activated charcoal, propylene glycol (often from intravenous medications such as lorazepam or diazepam), or contrast dye.

We hope that the new ethylene glycol immunoassay will facilitate rapid diagnosis of ethylene glycol poisoning, which continues to be a persistent public health issue. The availability of the ethylene glycol immunoassay will also allow for more frequent determinations of follow-up plasma concentrations (if clinically indicated) in patients undergoing therapy with the antidote fomepizole and/or hemodialysis. **UIDL Test Directory: [Ethylene Glycol, human specimen](#)**

NEW TEST: Ethylene Glycol, Vet Specimens

This assay is intended for measurement of **ethylene glycol in plasma of animals under veterinary care**. This procedure individually quantitates ethylene glycol by an enzymatic immunoassay using the enzyme glycerol dehydrogenase.

Note: This procedure is not suitable for the detection of other toxic alcohols including methanol and isopropanol, or for detection of propylene glycol (commonly found as diluent in some intravenous medications).

Ethylene glycol is commonly found in many automobile antifreezes. Ethylene glycol has a sweet taste. Animals may ingest ethylene glycol that has spilled on the ground or from bottles of antifreeze that are not capped tightly. Toxic concentrations of ethylene glycol in animals are not well defined, but ethylene glycol plasma concentrations of > 50 mg/dL in dogs and > 20 mg/dL in cats have been associated with severe toxicity from kidney failure or other organ damage if untreated.

References: Incidence of ethylene glycol intoxication in dogs and cats seen at Colorado State University Veterinary Teaching Hospital. *Vet Hum Toxicol* 29: 41-44, 1987. **UIDL Test Directory: [Ethylene Glycol, Vet](#)**

NEW: Respiratory Virus Panel PCR

The UIHC Microbiology Laboratory now offers a **Respiratory Virus Panel PCR assay (by nasopharyngeal swab) which tests for 8 respiratory viruses: Influenza A (including H1N1), Influenza B, parainfluenza viruses 1, 2, 3, adenovirus, respiratory syncytial virus (RSV), and human metapneumovirus.**

Human metapneumovirus, discovered in 2001, is a respiratory virus related to RSV. Its clinical manifestations are also similar to that of RSV and range from mild upper respiratory infections to bronchiolitis and severe pneumonia. The expected turnaround time is 1-2 days.

For additional test information please call UIDL Client Services 1-866-844-2522. **UIDL Test Directory: [Respiratory Virus Panel PCR](#)**

Contact us

For additional consultation and testing information, please visit our website at

www.healthcare.uiowa.edu/uidl

or call Client Services at
1-866-844-2522.



Department News

• NEW STAFF • APPOINTMENTS • RECOGNITIONS •

New Faculty

Dennis Firchau, MD

Clinical Assistant Professor of Anatomic Pathology

The UI Department of Pathology would like to announce the addition of Dr. Dennis Firchau, Clinical Assistant Professor of Anatomic Pathology, to the faculty team. Dr. Firchau's clinical duties and interests include autopsy and forensic pathology, cardiovascular pathology and medical education.

Dr. Firchau received an M.D. from Wayne State University School (2004), completed a Pathology Residency at the Medical College of Wisconsin (2008), a Cardiovascular Pathology Fellowship at Mayo Clinic (2009) and most recently completed a Forensic Pathology Fellowship at the Hennepin Medical Examiner's Office (2010).



Dennis Firchau

Two UI pathologists appointed Deputy Medical Examiners for Johnson County

Drs. Marcus Nashelsky and Dennis Firchau were recently appointed Deputy Medical Examiners of Johnson County. They provide comprehensive forensic autopsy services to this county and, previously, provided much background support to the Johnson County Medical Examiner Department. These appointments will formalize their role in the death investigation component of the ME Dept operations.



Marcus Nashelsky

Eleven UI Pathologists among 'Best Doctors in America' recognizes University of Iowa Pathologists

The University of Iowa Department of Pathology is pleased to have 11 physicians recognized among the 2011-12 Best Doctors in America®.

This year's list includes **Jo Benda, Leslie Bruch, Michael Cohen, Laila Dahmouh, Barry De Young, Chris Jensen, Patricia Kirby, Frank Mitros, Steven Moore, Robert A. Robinson,** and **Nancy Rosenthal.**

Only about 5 percent of doctors practicing in the U.S. are selected for each Best Doctors list. The Best Doctors in America® database includes the names and professional profiles of more than 45,000 of the best doctors in the United States. An exhaustive peer review determines the physicians included in the database. Only those who earn the consensus support of their peers as well as meet additional qualification criteria are included.

Awards and Recognition

• GRANTS • CERTIFICATES • PROMOTIONS • REVIEWS •

Wellstone Muscular Dystrophy Center Awarded \$7.8 Million Grant

The Paul D. Wellstone Muscular Dystrophy Cooperative Research Center at The University of Iowa has received a five-year, \$7.8 million grant renewal from the National Institute of Neurological Disorders and Stroke to advance its work on finding treatments for muscular dystrophies.

The UI center, led by center director Kevin Campbell, PhD, professor and head of molecular physiology and biophysics, and a Howard Hughes Medical Institute investigator, was established in 2005. It brings together researchers and clinicians to translate laboratory discoveries into clinical applications to treat a group of congenital and limb girdle muscular dystrophies. The center also focuses on research training and education.

In addition to Dr. Campbell, the UI team is led by center co-director **Steven Moore, MD, PhD**, professor of pathology, and Katherine Mathews, MD, director of pediatric neurology at UI Children's Hospital. The UI center is one of six around the country named after Sen. Paul D. Wellstone (D-Minn.) who died in 2002. As a senator, Wellstone was instrumental in passing legislation that mandates that the NIH establish centers of excellence for basic and clinical research into forms of muscular dystrophy.



Steven Moore



Nancy Rosenthal

Dr. Nancy Rosenthal Named Assistant Dean for Student Affairs

Nancy Rosenthal, MD, has been named as the new Assistant Dean for Student Affairs in the Carver College of Medicine. Dr. Rosenthal joined the College faculty in 1998 and was promoted to full Professor (Clinical) in 2003. During her tenure at the University of Iowa she has served as Director of the Hemostasis Laboratory, Director of the Hematopathology fellowship, and most recently as Vice Chair for Education for the Department of Pathology. She has taught for many years in several Pathology courses, was named the Walter Beirring Professor of Clinical Education by the College in 2007, and most recently, chaired one of the curriculum design committees.



Frank Mitros

Dr. Mitros Awarded J.P. Long Teaching Award

Congratulations to **Frank Mitros, MD**, who was recently honored at the 2011 Carver College of Medicine Faculty Awards Banquet. Dr. Mitros was the recipient of the **John P. Long Teaching Award in Basic Sciences**. This award recognizes the outstanding career-level teaching contributions by a basic science faculty member.



Chris Jensen



Sergei Syrbu



Kevin Legge

2010-2011 Faculty Promotions

The Department is pleased to congratulate the following faculty members on their recent promotions. The promotions are effective for the 2010–11 academic year, beginning July 1. Thank you all for your continued dedication!

Congratulations goes to **Chris Jensen, MD**, who has been promoted to Clinical Professor of Pathology, **Sergei Syrbu, MD**, who has been promoted to Clinical Associate Professor of Pathology, and **Kevin Legge MD**, who has been promoted to Associate Professor of Pathology.

Dr. Robert A Robinson Named Vice Chair of External Affairs

Robert A. Robinson, MD, has been named as the new Vice Chair of External Affairs for the Department of Pathology. He has been recognized for the important role he has played as Medical Director of UI Diagnostic Laboratories (UIDL), and the success of the department's Outreach Program. As the Vice Chair for External Affairs his duties will focus on referring physician relations as well as alumni relations.



Robert A. Robinson

Dr. Barry DeYoung Named Vice Chair of Faculty Affairs

Barry DeYoung, MD, has been named as the new Vice Chair for Faculty Affairs. In this role Dr. DeYoung will initially help with faculty recruitment and development, chair the Faculty Development Committee, and take the lead in overseeing the mentoring of the faculty.



Barry DeYoung

Dr. Matt Krasowski Named Assistant Director of Clinical Laboratories

Matt Krasowki, MD, has been named as the new Assistant Director of Clinical Laboratories. He has played an increasingly important role in clinical affairs for the Hospital.



Matthew Krasowki

Research Awards

Dr. Fred Dee received an Innovation in Teaching with Technology Award from the University of Iowa Academic Technologies Advisory Council. The title of the project is *Development and Assessment of a Web-based Student Generated Cause and Effect Diagrams in Science and Education*. The amount of this award is \$35,500.

Dr. Hasem Habelhah received a notice of R01 funding from the National Institutes of Health. The title of this project is *RIP1 Cleavage by Caspase-8 is Essential for TRAIL-induced NF- κ B Activation*. This award is for the period of February 23, 2010 through December 31, 2014. The amount of this award is \$1,556,250.

Dr. Siegfried Janz received notice of funding from the following:

- 1) International Waldenstrom's Macroglobulinemia Foundation (IWMF) for a research project titled *Development of a Transgenic Mouse Model of Waldenstrom's Macroglobulinemia*. This award total is \$540,000 and is for the period of August 1, 2010 through July 31, 2012.
- 2) R01 funding from the National Institutes of Health. The title of the project is *Defining Genetic Pathways of Plasma-Cell Neoplasia*. This award is for the period of July 19, 2010 through May 31, 2015. The amount of this award is \$1,564,377.
- 3) Holden Comprehensive Cancer Center, through the Cancer Center Designated Gift Fund. This funding is earmarked for collaborative multiple myeloma research. This collaboration includes Dr. Apolina Goel (Radiation Research Lab), Dr. Sarah Holstein (Internal Medicine) and Dr. Margarida Magalhaes-Silverman (Internal Medicine). This award is for \$19,290.
- 4) Myeloma Research Foundation (MMRF) for a research project titled *Pre-clinical Validation of IL-6 for Translational Myeloma Research*. This award total is \$200,000 and is for the period of December 1, 2009 through November 30, 2011.

Dr. C. Michael Knudson received a notice of funding from the Holden Comprehensive Cancer Center, through the Oberley Seed Grant Program. The title of this project is

Developing Models to Address the Role of Oxidative Stress in Chromosome Instability and Cancer. This award is for the period of March 1, 2010 through February 28, 2011. The amount of this award is \$50,000.

Dr. Thomas Waldschmidt received a notice of NIH R01 subcontract funding from Dr. Michael Cho at Iowa State University. The title of the project is *Enhancing B Cell Immunity Against HIV-1 Using Novel Vaccine Delivery Platforms*. This subcontract is for the period of August 1, 2010 through July 31, 2015. The total amount of this award is expected to be \$525,000.

Recent Publications

Neoplastic pulmonary cytology: why All the Fuss Over "NSCLS"?

Cohen MD, Weydert JA. Department of Pathology, University of Iowa Hospitals and Clinics. Cancer Cytopathology 2010 Dec 23.

Degrees of dysplasia and the use of cidofovir in patients with recurrent respiratory papillomatosis.

Gupta HT, Robinson RA, Murray RC, Karnell LH, Smith RJ, Hoffman HT. Department of Otolaryngology, University of Iowa Hospitals and Clinics, Iowa City, Iowa. Laryngoscope. 2010 Apr;120(4):698-702.

Expression profiling of transcription factors in B- or T-acute lymphoblastic leukemia/lymphoma and burkitt lymphoma: usefulness of PAX5 immunostaining as pan-Pre-B-cell marker.

Nasr MR, Rosenthal N, Syrbu S. Am J Clin Pathol. 2010 Jan;133(1):41-8.

Angiosarcoma following MammoSite((R)) partial breast irradiation.

Andrews S, Wilcoxon R, Benda J, Jacobson G. Department of Radiation Oncology, University of Iowa Hospitals and Clinics, 200 Hawkins Drive, Iowa City, IA, 52242, USA. Breast Cancer Res Treat. 2010 May 23

Frequent Attenuation of the WWOX Tumor Suppressor in Osteosarcoma Is Associated with Increased Tumorigenicity and Aberrant RUNX2 Expression.

Kurek KC, Del Mare S, Salah Z, Abdeen S, Sadiq H, Lee SH, Gaudio E, Zanesi N, Jones KB, Deyoung B, Amir G, Gebhardt M, Warman M, Stein GS, Stein JL, Lian JB, Aqeilan RI.
Cancer Res. 2010 Jun 8.

Nitroxidergic innervation of human cerebral arteries.

Taktakishvili OM, Lin LH, Vanderheyden AD, Nashelsky MB, Talman WT.
Auton Neurosci. 2010 May

Elevated oxidative membrane damage associated with genetic modifiers of lyst-mutant phenotypes.

Trantow CM, Hedberg-Buenz A, Iwashita S, Moore SA, Anderson MG.
PLoS Genet. 2010 Jul 1;6:e1001008.

Dystroglycan is not required for maintenance of the luminal epithelial basement membrane or cell polarity in the mouse prostate.

Esser AK, Cohen MB, Henry MD.
Prostate. 2010 May 15;70(7):777-87.

Commentary: Mentoring the mentor: executive coaching for clinical departmental executive officers.

Geist LJ, Cohen MB.
Acad Med. 2010 Jan;85(1):23-5.

Intestinal lymphangiectasia mimicking primary peritoneal carcinoma.

Steines JC, Larson JH, Wilkinson N, Kirby P, Goodheart MJ.
Am J Obstet Gynecol. 2010 Oct;203(4):e9-e11.

Antibody expiration in the context of resource limitation: what is the evidence basis?

Savage EC, DeYoung BR.
Am J Clin Pathol. 2010 Jul;134(1):60-4.

Regulator of G protein signaling 6 (RGS6) induces apoptosis via a mitochondrial-dependent pathway not involving its GTPase-activating protein activity.

Maity B, Yang J, Huang J, Askeland RW, Bera S, Fisher RA.
J Biol Chem. 2010 Nov 1.

Giant renal angiomyolipoma without fat density on CT scan: case report and review of the literature.

Nepple KG, Bockholt NA, Dahmouh L, Williams RD.
ScientificWorldJournal. 2010 Jul 7;10:1334-8.

Hepatocellular carcinoma masquerading as a large renal mass with hepatic invasion.

Zabell JR, Nepple KG, Wilkinson NW, Dahmouh L, Williams RD.
ScientificWorldJournal. 2010 Feb 17;10:301-7.

Lymphocytic esophagitis: A possible manifestation of pediatric upper gastrointestinal Crohn's disease.

Ebach DR, Vanderheyden AD, Ellison JM, Jensen CS.
Inflamm Bowel Dis. 2010 May 19

Cystic fibrosis pigs develop lung disease and exhibit defective bacterial eradication at birth.

Stoltz DA, Meyerholz DK, Pezzulo AA, Ramachandran S, Rogan MP, Davis GJ, Hanfland RA, Wohlford-Lenane C, Dohrn CL, Bartlett JA, Nelson GA 4th, Chang EH, Taft PJ, Ludwig PS, Estin M, Hornick EE, Launsbach JL, Samuel M, Rokhlina T, Karp PH, Ostedgaard LS, Uc A, Starner TD, Horswill AR, Brogden KA, Prather RS, Richter SS, Shilyansky J, McCray PB Jr, Zabner J, Welsh MJ.
Sci Transl Med. 2010 Apr 28;2(29):29ra31.

Mechanisms by Which Chronic Ethanol Feeding Limits the Ability of Dendritic Cells to Stimulate T-Cell Proliferation.

Fan J, Edsen-Moore MR, Turner LE, Cook RT, Legge KL, Waldschmidt TJ, Schlueter AJ.
Alcohol Clin Exp Res. 2010 Oct 6. doi: 10.1111/j.1530-0277.2010.01321.x.

Resident Awards



Serena Heinz

The Richard G. Lynch Award for Excellence in Pathology

Serena Heinz, MSTP/M1G and **Desi Schoo, M2**, were presented The Richard G. Lynch Award for Excellence in Pathology at the celebration dinner following the [Medical Student Summer Research Day](#) on September 10, 2010. The Department of Pathology sponsors two awards in honor of Richard G. Lynch, MD, for the best poster or oral presentation by a medical student. The award was open to student research in any department in any project area. The presentations were judged by an independent panel of faculty judges and the awards were given to the two top scoring students.



Desi Schoo

Serena Heinz, MSTP/M1G

Poster: Modification of the Immune Response to Influenza A Virus Infection by Prostaglandin D2

Mentor: [Dr. Kevin Legge](#), Pathology

Desi Schoo, M2

Poster: Bcl-2 Blocks Cell Death but Increases Oxidative Stress in SOD2 Deficient Thymocytes.

Mentor: [Dr. C Michael Knudson](#), Pathology and Dr. Frederick Domann, Radiation Oncology



Benjamin Darbro

2010-2011 Co-Chief Residents

Congratulations are extended to **Benjamin Darbro, MD, PhD**, and **Martin Potash, MD**, as the newly appointed 2010-2011 Co-Chief Residents. A special thank you goes to Shannon Gabriel-Griggs, MD, and Megan Samuelson, MD, for serving as the 2009-2010 Co-Chief Residents.

Benjamin Darbro, MD, PhD

BS Nebraska Wesleyan University, 1999

PhD University of Iowa Roy J. and Lucille A. Carver College of Medicine, 2007

MD University of Iowa Roy J. and Lucille A. Carver College of Medicine

Martin Potash, MD

BS University of Iowa, 2000

MD University of Iowa Roy J. and Lucille A. Carver College of Medicine, 2007



Martin Potash

2010-2011 1st Year Residents



WELCOME

**Michelle Kurt, MD**

BS – College of St. Benedict/St. John’s University, 2006

MD – University of Iowa, Roy J. and Lucille A. Carver College of Medicine, 2010

**Brittany Pakalniskis, MD**

BS – The Ohio State University, 2005

MD – Dartmouth Medical School, 2010

**Erica Savage, MD**

BA – Saint Olaf College, 2005

MD – *with Research Distinction*, University of Iowa, Roy J. and Lucille A. Carver College of Medicine, 2010

**Johanna Savage, MD**

BA – Saint Olaf College, 2005

MD – *with Research Distinction*, University of Iowa, Roy J. and Lucille A. Carver College of Medicine, 2010

**Bryan Steussy, MD**

BS Iowa State University, 2005

MD *with Teaching Distinction*, University of Iowa, Roy J. and Lucille A. Carver College of Medicine, 2010



Residency Program Director
Leslie Bruch, MD
Associate Professor

Pathology Externs

2010-2011

Lindsey Arnold	M2
Matthew Bream	M3
Michael Haugsdal	M2
Natalya Hutchinson	M3
Katherine Lynch	M2

Pathology Staff Roster

2010-2011

Melissa Meier, MD	R4
Joseph Mitros, MD	R4
Martin Potash, MD	R4
Rebecca Wilcoxon, MD	R4
John Blau, MD	R3
Benjamin Darbro, MD, PhD	R3
Michael Gailey, DO	R3
Brian Linert, MD	R3
Joel Miron, MD	R3
Eyglo Thordardottir, MD	R3
Eric Hanson, MD	R2
Emilian Racila, MD	R2
Lori Sinclair, MD	R2
Thomas Wilson, MD	R2
Michelle Kurt, MD	R1
Brittany Pakalniskis, MD	R1
Erica Savage, MD	R1
Johanna Savage, MD	R1
Bryan Steussy, MD	R1

Pathology Fellows

2010-2011

Sara M. Shunkwiler, MD <i>Cytopathology Fellow</i>
Shannon M. Gabriel-Griggs, MD <i>Hematopathology Fellow</i>
Daniel C. Marko, BMBS <i>Medical Microbiology Fellow</i>
Sophie Arbefeville, MD <i>Molecular Genetics Pathology Fellow</i>
Sara "Beth" Kilborn, MD <i>Surgical Pathology Fellow</i>
Benjamin R. Koch, MD <i>Surgical Pathology Fellow</i>
Megan I. Samuelson, MD <i>Surgical Pathology Fellow</i>

Links of Interests:

Pathology Department:
www.healthcare.uiowa.edu/pathology

Resident & Fellow Information:
www.healthcare.uiowa.edu/pathology/site/residents

Laboratory Services Handbook for PDA or Pocket PC:
www.healthcare.uiowa.edu/path_handbook/pda



Private support has always been important, but it is nothing short of critical in today's funding environment.

Spring Greetings from Shelly Mott

Department of Pathology Representative for the UI Foundation

Although I am new to the role I play at the UI Foundation, I am certainly not new to the University of Iowa! I grew up in Tipton, IA and met my husband while we were attending the University of Iowa back in the late 80's. We moved away, started a family and after a 15 year career in Law, and a professional football stint by my husband, we were thrilled for the opportunity to return to Iowa City!

Since I started last year, I have had the privilege of visiting a few of our Pathology alumni and look forward to meeting many more of you. Private support has always been important, but it is nothing short of critical in today's funding environment. Hundreds of donors express their loyalty to the Department of Pathology through an annual gift. We appreciate those who have done so, and welcome new givers to begin! Other donors make larger contributions establishing an endowed fund through an outright gift or estate planning. These are the gifts that make new chairs, professorships, scholarship and research funds available. The Foundation has several endowment opportunities available that you can arrange now, with cash and securities, or later through a will or trust. Estate gifts allow us to look ahead and plan with confidence providing financial light for future generations. The paper work is minimal compared to the satisfaction you will receive.

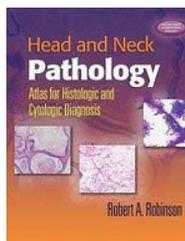
As the Department's representative for the UI Foundation, I would love to hear your Iowa story and be a resource to you as you shape your philanthropic legacy. I encourage you to support the Department of Pathology by giving online at www.medicine.uiowa.edu/pathology/. If you have any questions, regarding giving opportunities or Department's needs, feel free to contact me by sending an email to shelly-mott@uiowa.edu or calling (800) 648-6973. Thank you again for your interests in and support of the Department of Pathology.



Shelly Mott

Shelly J. Mott
Associate Director of Development
Carver College of Medicine/University of Iowa Hospitals and Clinics
The University of Iowa Foundation

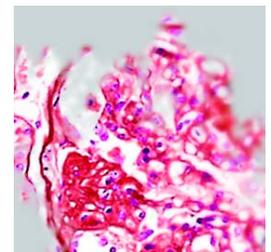
INSIDE THIS ISSUE



Meet faculty member **Dr. Robert Robinson**. He just published a new book!

Targeted therapy has emerged that can extend survival in patients with NSCLC

Drs. Michael B. Cohen and **Jamie A. Weydert** discuss this critical topic.



New information on 4th Generation HIV Antigen/Antibody (Ag/Ab) Combo

PATHBEAT

The Newsletter of the Department of Pathology
University of Iowa Carver College of Medicine