



**The University of Vermont  
Fletcher Allen Health Care**

# Pathology & Laboratory Medicine Newsletter

**Volume 6 \* Summer 2013**

The Newsletter of the Department of Pathology and Laboratory Medicine at  
The University of Vermont & Fletcher Allen Health Care

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## **Dr. Nicholas J. Hardin - Retirement: June 30, 2013**

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**Dr. Nicholas J. Hardin** retired on June 30<sup>th</sup>, 2013, after 36 years of service to the Department of Pathology and to Fletcher Allen Health Care. Beginning on March 1<sup>st</sup> of this year, Dr. Brenda Waters took over the duties of Chief of the Autopsy Division.



Dr. Hardin came to Vermont directly out of a two year stint with the U.S. Navy, during which he did surgical pathology and directed their autopsy service, and taught pro bono at the then brand new Eastern Virginia Medical School. Since his arrival here in 1977, he has served as a surgical pathologist and as an autopsy pathologist. He became the director of the autopsy service in about 1980 and served in that position, except for the years covered by Dr. Haagen Blasyck and then Dr. Matt Kida, until this past March. Dr. Hardin also served on many committees at the MCHV and Fletcher Allen and as President of the Medical Staff.

He also taught at the College of Medicine, and directed the two pathology courses for medical students – Pathology 301 General Pathology and Pathology 302 Systemic Pathology -- for many years. He wants it known that these two courses were ably assisted by Jane Murray, who still works as an administrative assistant for the Pathology Residency Program.

These courses were always popular, due to the many pathology faculty who enthusiastically and knowledgeably participated, and the courses consistently won awards from the students. It was during those years that the department elected Dr. Hardin to the Ernest Hiram Buttles Chair of Pathology, a five year post in recognition of his teaching abilities and contribution to Pathology Education at the College of Medicine.

Dr. Hardin's contributions to the teaching of medical students included lecturing on Necrosis, Adaptive Changes, Thrombosis and Fluid Disturbances, and Cardiovascular Pathology, and teaching in laboratories and Pathology Colloquium on all topics for many years during Pathology 301 and 302. He also designed the first of the many digital online laboratories in those courses. When the College of Medicine converted to an integrated curriculum, Dr. Hardin oversaw the insertion of pathology lectures and labs into all the courses in which pathology is taught. He estimates that he has taught approximately 3350 medical students during his career here. He is pleased with the production of both the Virtual Pathology Museum and the Virtual Microscope, currently being used in the interdisciplinary curriculum.

*continued on page 2*

## Dr. Nicholas J. Hardin - Retirement: June 30, 2013

*continued*

He is quick to point out, however, that the finished product that we and the students see and use today is the result not only of his work, but that of many other pathologists in the department, as well as the able technical work of Judith Kessler, formerly of the COMET Lab at the College of Medicine under the direction of Jill Jemison. The addition of the initial pathology images to the Virtual Microscope was overseen by Dr. Hardin, and the technical work on this project has been and is still done largely by Andrew Verhelst of COMET. He also enjoyed making many of the Pathology Video Tours that take the students through the slides they see in the labs. "It was Greg Sharp who pioneered this project and convinced me to do it," says Dr. Hardin. "Dr. Sharp provided the studio (his office), the editing skills, and added the introductory scenes of the lab at work, and the music."

When Dr. Hardin retired, the first time, in 2006, he remained on the medical staff and returned in a part time position to teach at the College of Medicine as Professor of Pathology Emeritus. His philosophy of education is as follows: "Investing in education always seemed to me a worthy idea. Supporting ones alma mater and the educational institutions in ones community are ways to "make a difference" in this world. As someone else said, I believe that education is the best way out of poverty, away from war, and toward peace and justice for all of us. Teaching those who are to come after you is another way to make a difference. When I teach pathology, I try to "keep it simple," and make the material relevant by giving clinical examples. I remember not to just tell about pathology, but to show pathology, and I try to share how noble and important I think the medical profession can be. I have been shown the greatest of kindnesses by people in the Department of Pathology, both at the College of Medicine and at the hospital, and by our housestaff, the students at both the College of Medicine, and the undergraduates at UVM, and I am grateful to have been allowed to spend time with them. "

Dr. Hardin says he attributes any success he has enjoyed to the many colleagues, technicians, and support staff he has had the honor and privilege of working with over the

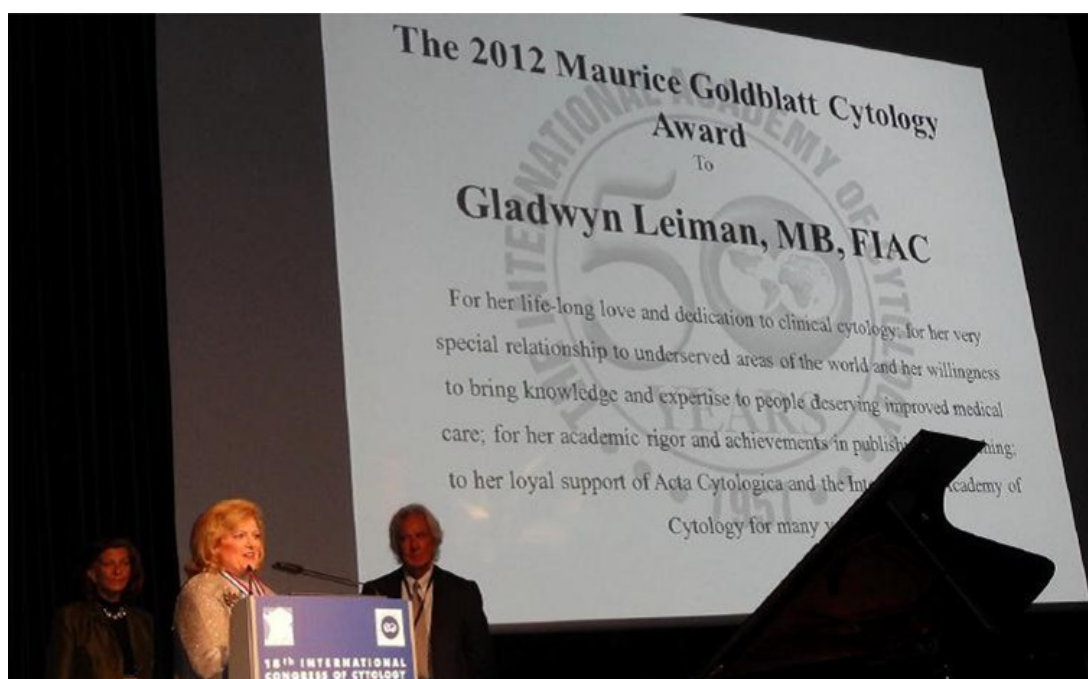
years. He plans to spend more time on his hobbies, working for his church, and travelling with his wife Susan. But we understand he still can't quite let go, as he has already agreed to teach the gross pathology specimen labs for the cardiovascular section of the Cardiovascular, Respiratory and Renal Course in the fall!

Dr. Hardin appreciated the retirement gatherings held for him and his wife, by the College of Medicine, Department of Pathology, and the Autopsy Service. ■

## GLADWYN LEIMAN, M.D. OUTSTANDING HONOR & LIFETIME ACHIEVEMENT RECOGNITION - PARIS

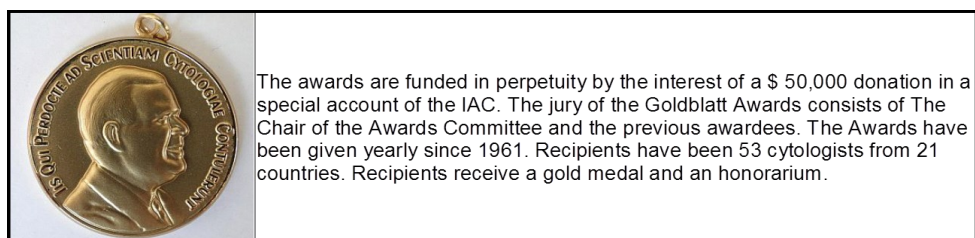
### Gladwyn Leiman, M.D. - The Maurice Goldblatt Award - Paris

**"18th International Congress of the International Academy of Cytopathology" Awarded the 2012**



**Dr. Gladwyn Leiman receives a lifetime achievement award for her life long love and dedication to clinical cytology as well as her special relationship with underserved areas of the world.**

**The GOLDBLATT AWARD was inaugurated in 1960 by the late Maurice Goldblatt, the founder and Honorary Chairman of the Cancer Research Foundation in Chicago.**



### **Goldblatt Award 2012**

**Gladwyn Leiman, M.D, FIAC, U.S.A.**

**For her lifelong love and dedication to clinical cytology; for her very special relationship to underserved areas of the world and her willingness to bring knowledge and expertise to people deserving improved medical care; for her academic rigor and achievements in publishing and teaching; to her loyal support of Acta Cytologica and the International Academy of Cytology for many years.**





## RESEARCH FOCUS

### DONALD WEAVER, M.D.



#### **What is your scientific background?**

When I was an undergraduate student, I worked as a research technician in Biochemistry for Ed Bresnick. This was my first real exposure to scientific method in a laboratory. My first published paper was co-authored with Nick Heintz when he was a graduate student for Warren Shaeffer! I was accepted to medical school and never pursued a PhD in Biochemistry. During pathology residency, my interest in asking research questions continued. There was not much opportunity for bench research but we had a good molecular lab and I was able to learn Southern blots and other “high tech” procedures for the time. I designed an 80% research, 20% Surg Path fellowship in analytic cytology following my residency. During this time, I worked on computer modeling of S-phase fractions from flow cytometry; the models are still used in a commercially available DNA analysis program.

#### **What are your main areas of research?**

Once recruited back to Vermont, my research career gently evolved from bench research to clinical trials research. Roger Foster, an active surgeon with NSABP, got me involved in cooperative group trials. If you know anything about NSABP, it is somewhat ironic that the B-32 trial (designed by UVM faculty members including David Krag, Taka Ashikaga, Seth Harlow, Donald Weaver) is the largest and fastest accruing trial in NSABP history. This trial allowed me to design a study evaluating the clinical significance of minimal metastatic disease in breast cancer

(see NEJM 2011). Related to clinical trials research, my interests lie in public health and cancer surveillance, diagnosis, and prognosis. Long affiliations with the Breast Cancer Surveillance Consortium and NCI have been rewarding and have led to several ongoing grant funded projects including PROSPR, BPATH, and Digipath.

#### **What might be one possible translational result from your research?**

We don’t need to spend valuable medical resources on witch hunts for tiny metastases in lymph nodes. I think the level I evidence we have collected supports this. Unfortunately, the practice of deeper sections and IHC for lymph node evaluation is still highly prevalent in the US. I’m hoping that stronger statements in the updated ASCO guideline for breast sentinel nodes, which I am helping to write, will continue to turn the tide. My other major translational interest is reducing harms from breast cancer screening, including overtreatment of DCIS. The PROSPR and BPATH grants are helping to lay the ground for this work but I could easily be retired before we make significant progress reversing that trend!!

#### **On the personal side, what do you like to do to relax?**

Anything that really clears my mind of intrusive professional thoughts! It can be reading a good book, woodwork, gardening, biking, running, or sailing. I’ve also enjoyed participating in my daughter’s competitive swimming through officiating both USA Swimming and Collegiate meets. ■

## RECENT PUBLICATIONS/ABSTRACTS/POSTERS

### Nancy Swords Jenny, Ph.D.

#### **53<sup>rd</sup> Annual Conference on Cardiovascular Disease Epidemiology and Prevention.**

Jenny NS, McClelland R, Jorgensen N, Garg P, Burke G, Criqui M, Greenland P, Rosenson R, Siscovick D, Cushman M (2013) Associations of lipoprotein-associated phospholipase A<sub>2</sub> mass and activity with coronary artery calcium: The Multi-Ethnic Study of Atherosclerosis (MESA). (**Poster**)

### Mark Evans, Ph.D.

Evidence that alpha-9 human papillomavirus infections are a major etiologic factor for oropharyngeal carcinoma in black South Africans

**Authors:** Cherie Paquette, **Mark F Evans**, Shabnum S Meer, Vanitha Rajendran, Christine S-C Adamson, Kumarasen Cooper

**Journal:** Head and Neck Pathology

Human Papillomavirus Type Distribution in Invasive Cervical Cancers from Madhya Pradesh: Implications for Vaccination Programs in Central India

**Authors:** Kavita Munjal, Christine S-C Adamson, Vanitha Rajendran, Shirish Nandedkar, Kumarasen Cooper, Richa Nigam, **Mark F Evans**

**Journal:** International Journal of Gynecological Pathology

### Brooke Mossman, M.D.

Peeters PM, **Mossman BT**, Perkins TN, Wouters EFM, and Reynaert NL: Silica induces NLRP3 inflammasome activation in human lung epithelial cells. <http://www.particleandfibretoxicology.com/content/pdf/1743-8977-10-3> *Part Fibre Toxicol* 10:3 2013  
PMCID: PMC3607900

**Mossman BT**, Shukla A, Heintz NH, Verschraegen CF, Thomas A, and Hassan R: New developments in understanding the mechanisms, pathogenesis and management of malignant mesotheliomas (invited review). *Am J Pathol* 182:1065-1077, 2013 PMCID: PMC3657618

Shukla A, Miller JM, Cason C, Sayan M, MacPherson MB, Beuschel SL, Hillegass JM, Vacek PM, Pass HI, and **Mossman BT**: Extracellular signal regulated kinase 5: a potential therapeutic target for malignant mesotheliomas. *Clin Cancer Res* 19:2071-2083, 2013 PMCID: PMC3630261

Taylor ES, Wiley AG, **Mossman BT**, and Lower SK: Repetitive dissociation from crocidolite asbestos acts as persistent signal for epidermal growth factor receptor. *Langmuir* 29:6323-6330, 2013

**Mossman BT** and Glenn RE: Bioreactivity of the crystalline silica polymorphs, quartz and cristobalite, and implications for occupational exposure limits (OELs). *Crit Rev Toxicol* (In press) 2013

Perkins TN, Peeters PM, Reynaert NL, Wouters EFM, and **Mossman BT**: Pathogenesis and mechanisms of asbestosis and silicosis. In: Pathobiology of Human Diseases: A Dynamic Encyclopedia of Disease Mechanisms (R Homer, section ed.; LM McManus and RN Mitchell, eds.), Elsevier (In press), 2013

Sayan M and **Mossman BT**: Erionite and asbestos in the pathogenesis of human malignant mesotheliomas. In: The Molecular Basis of Human Cancer, Second Edition (WB Coleman and GJ Tsongalis, eds.), Humana Press, Inc., Totowa, NJ (In press), 2013

### Sharon Mount, M.D.

Recurrent pregnancy loss in a woman with NLRP7 mutation: not all molar pregnancies can be easily classified as either “partial” or “complete” hydatidiform moles.

**Authors:** Brown L, **Mount S**, Reddy R, et al.

**Journal:** *International Journal of Gynecologic Pathology* 2013.

### Cherie Pauquette, M.D.

**Paquette C** Evans MF Meer SS Rajendran V Adamson CS-C Cooper K. Evidence that alpha-9 human papillomavirus infections are a major etiologic factor for oropharyngeal carcinoma in black South Africans [in press *Head and Neck Pathology* 6/2013]

Riley E **Paquette C** Leiman GL. What exactly are the inclusions in metastatic urothelial carcinoma, and are they of diagnostic value? *Diagnostic Cytopathology* DOI 10.1002/dc.22994 published online April 2013

Meyer G **Paquette C** Hynes N. Eosinophilic granulomatosis with polyangiitis (Churg-Strauss): Recognizing an easily overlooked classic presentation in the primary care setting. *University of Vermont Resident Research Day* Burlington VT, May 2013 (**Poster**)

### Jennifer Sauter, M.D.

Sauter J, Powlovich L, Bour R, Wilcox R. Pancreatic adenocarcinoma arising in intrahepatic pancreatic heterotopia. *Diagnostic Histopathology*. 2013 Jan;19(1):25-27.

### Arti Shukla, Ph.D.

**Shukla, A.** et al. Extracellular signal-regulated kinase 5: a potential therapeutic target for malignant mesotheliomas. *Clinical Cancer Research (Journal)*, 19(8), 2071-83, 2013.

Mossman, B.T. and **Shukla, A.** et al. New insights into understanding the mechanisms, pathogenesis, and management of malignant mesotheliomas. *The American Journal of Pathology* (182:1065-1077), 2013

Thompson and **Shukla, A.** Asbestos Risks: Past and Present. *Air and Water Borne Diseases*, Editorial, 2013. **In Press.**

**Shukla A:** Current Concepts of Causation of Mesothelioma by Amphibole Asbestos and Erionite (Invited Talk; **Abstract Published** in GSA Abstracts, vol. 45 no. 1), Oral presentation in Geologic Society of America, Northeastern Section Meeting, Bretton Woods, NH, March 18-20, 2013

**Shukla A et al.:** ERK5 in pathogenesis of mesothelioma. **Presentation** at AACR Annual Meeting (abstract # 4315, published in *Cancer Research*), Washington, DC, April 6-10, 2013

**Shukla A:** Mesothelioma and Inflammasomes: Is there a connection? (Invited Talk, **Presentation**) Vermont Lung Center, UVM, April 30, 2013.

Brooke Mossman, Sonali Herath, Eric Taylor, Steven Lower, Julie Dragon, Jeff Bond, Ann Wylie and **Arti Shukla:** New data on how asbestos fibers interact with cells to trigger extracellular signal-regulated protein kinase, i.e. ERK, pathways critical to toxicity and diseases. **Presentation** at 10<sup>th</sup> International Meeting on Particle Toxicology in Dusseldorf, Germany. June 2013.

Joyce Thompson and **Arti Shukla:** Asbestos-induced inflammasome regulation by TXNIP. **Presentation** in an inflammasome conference at Boston University, June 24-25, 2013.

### Douglas Taatjes, Ph.D.

**Taatjes, D.J.,** and Roth, J. (2013) The Histochemistry and Cell Biology compendium: A review of 2012. *Histochem. Cell Biol.* 139, 815-846. **Published.**

Lee, J-S., Hou, X., Bishop, N., Wang, S., Flack, A., Cho, WJ., Chen, X., Mao, G., **Taatjes, D.J.,** Sun, F., Zhang, K., and Jena, B.P. (2013) Aquaporin-assisted and ER-mediated mitochondrial fission: A hypothesis. *Micron* 47, 50-58. **Published.**

**Taatjes, D.J.,** Quinn, A.S., Rand, J.H., and Jena, B.P. (2013) Atomic force microscopy: High resolution dynamic imaging of cellular and molecular structure in health and disease. *J. Cell. Physiol.*, **In Press.**

## RECENT PUBLICATIONS/ABSTRACTS/POSTERS

### Douglas Taatjes, Ph.D. (continued)

Hatle, K., Gummadidala, P., Navasa, N., Bernardo, E., Dodge, J., Silverstrim, B., Fortner, K., Burg, E., Suratt, B.T., Hammer, J., Radermacher, M., **Taatjes, D.J.**, Thornton, T., Anguita, J., and Rincon, M. (2013) MCI/ DnaJC15, an endogenous mitochondrial repressor of the respiratory chain that controls metabolic alterations. *Mol. Cell Biol.*, **In Press**.

### Russell Tracy, Ph.D.

Richardson K, Nettleton JA, Rotllan N, Tanaka T, Smith CE, Lai CQ, Parnell LD, Lee YC, Lahti J, Lemaitre RN, Manichaikul A, Keller M, Mikkila V, Ngwa J, van Rooij FJ, Ballentyne CM, Borecki IB, Cupples LA, Garcia M, Hofman A, Ferrucci L, Mozaffarian D, Peralta MM, Raitakari O, **Tracy RP**, Arnett DK, Bandinelli S, Boerwinkle E, Eriksson JG, Franco OH, Kahonen M, Nalls M, Siscovick DS, Houston DK, Psaty BM, Viikari J, Witteman JC, Goodarzi MO, Lehtimäki T, Liu Y, Zil-likens MC, Chen YD, Uitterlinden AG, Rotter JI, Fernandez-Hernando C, Ordovas JM\*. Gain-of-function lipoprotein lipase variant rs13702 modulates lipid traits through disruption of a microRNA-410 seed site. *Am J Hum Genet.* 92:5-14, 2013. (PMCID: PMC3542456)

Desai CS, Ning H, Kang J, Folsom AR, Polak JF, Sibley CT, **Tracy R**, Lloyd-Jones DM\*. Competing cardiovascular outcomes associated with subclinical atherosclerosis (from the Multi-Ethnic Study of Atherosclerosis). *Am J Cardiol.* **In Press**, 2013.

Ma D, Jasinska A, Kristoff J, Grobler JP, Turner T, Jung Y, Schmitt C, Raehtz K, Feyertag F, Martinez Sosa N, Wijewardana V, Burke DS, Robertson DL, **Tracy R**, Pandrea I, Freimer N, Apetrei C\*. SIVAGM infection in wild African Green Monkeys from South Africa: Epidemiology, natural history, and evolutionary considerations. *PLoS Pathog.* 2013;9:e1003011 (PMCID: PMC3547836)

Redfield MM\*, Chen HH, Borlaug BA, Semigran MJ, Lee KL, Lewis G, LeWinter MM, Rouleau JL, Bull DA, Mann DL, Deswal A, Stevenson LW, Givertz MM, Ofili EO, O'Connor CM, Felker GM, Goldsmith SR, Bart BA, McNulty SE, Ibarra JC, Lin G, Oh JK, Patel MR, **Tracy RP**, Velazquez EJ, Anstrom KJ, Hernandez AF, Mascette AM, Braunwald E, for the Heart Failure Clinical Research Network (HFNet). Effect of Phosphodiesterase-5 Inhibition on Exercise Capacity and Clinical Status in Heart Failure with Preserved Ejection Fraction: A Randomized Clinical Trial. *JAMA.* **In Press**, 2013.

Freiberg MS\*, Chang CC, Kuller LH, Skanderson M, Lowy E, Kraemer KL, Butt AA, Bidwell Goetz M, Leaf D, Oursler KA, Rimland D, Rodriguez Barradas M, Brown S, Gibert C, McGinnis K, Crothers K, Sico J, Crane H, Warner A, Gottlieb S, Gottdiener J, **Tracy RP**, Budoff M, Watson C, Armah KA, Doeblner D, Bryant K, Justice AC. HIV infection and the risk of acute myocardial infarction. *JAMA Intern Med.* 2013;1-9.

Belalcazar LM\*, Haffner SM, Lang W, Hoogeveen RC, Rushing J, Schwenke DC, **Tracy RP**, Pi-Sunyer FX, Kriska AM, Ballentyne CM. Lifestyle intervention and/or statins for the reduction of c-reactive protein in type 2 diabetes: From the look ahead study. *Obesity (Silver Spring).* **In Press**, 2013.

Polak JF\*, **Tracy R**, Harrington A, Zavodni AE, O'Leary DH. Carotid artery plaque and progression of coronary artery calcium: The multi-ethnic study of atherosclerosis. *J Am Soc Echocardiogr.* **In Press**, 2013.

Steffen BT, Steffen LM, Liang S, **Tracy R**, Jenny NS, Tsai MY\*. N-3 and n-6 fatty acids are independently associated with lipoprotein-associated phospholipase a2 in the multi-ethnic study of atherosclerosis. *Br J Nutr.* 2013;1-8.

Oelsner EC\*, Pottinger TD, Burkart KM, Allison M, Buxbaum SG, Hansel NN, Kumar R, Larkin EK, Lange LA, Loehr LR, London SJ, O'Connor GT, Papanicolaou G, Petrini MF, Rabinowitz D, Raghavan S, Redline S, Thyagarajan B, **Tracy RP**, Wilk JB, White WB, Rich SS, Barr RG. Adhesion molecules, endothelin-1 and lung function in seven population-based cohorts. *Biomarkers.* **In Press**, 2013.

## RECENT PUBLICATIONS/ABSTRACTS/POSTERS

### Russell Tracy, Ph.D. (continued)

Banerjee D, Biggs ML, Mercer L, Mukamal K, Kaplan R, Barzilay J, Kuller L, Kizer JR, Djousse L, **Tracy R**, Ziemann S, Lloyd-Jones D, Siscovick D, Carnethon M. Insulin resistance and risk of incident heart failure: Cardiovascular Health Study. *Circ Heart Fail. In Press*, 2013.

**Tracy RP\***, Doyle MF, Olson NC, Huber A, Jenny NS, Sallam R, Psaty BM, Kronmal RA. T Helper Type 1 Bias in Healthy People is Associated with Cytomegalovirus Serology and Atherosclerosis: the Multi-Ethnic Study of Atherosclerosis. *JAHA. In Press*, 2013.

Baker JV\*, Hullsiek KH, Bradford RL, Prosser R, **Tracy RP**, Key NS. Circulating levels of tissue factor microparticle procoagulant activity are reduced with antiretroviral therapy and are associated with persistent inflammation and coagulation activation among HIV positive patients. *J Acquir Immune Defic Syndr. In Press*, 2013.

Reiner AP, Hartiala J, Zeller T, Bis JC, Dupuis J, Fornage M, Baumert J, Kleber ME, Wild PS, Baldus S, Bielinski SJ, Fontes JD, Illig T, Keating BJ, Lange LA, Ojeda F, Muller-Nurasyid M, Munzel TF, Psaty BM, Rice K, Rotter JI, Schnabel RB, Tang WH, Thorand B, Erdmann J, Jacobs DR, Jr., Wilson JG, Koenig W\*, **Tracy RP\***, Blankenberg S\*, Marz W\*, Gross MD\*, Benjamin EJ\*, Hazen SL\*, Allayee H\*. Genome-wide and gene-centric analyses of circulating myeloperoxidase levels in the charge and care consortia. *Hum Mol Genet. In Press*, 2013.

Tang W, Teichert M, Chasman DI, Heit JA, Morange P-E, Li G, Pankratz N, Leebeek FW, Paré G, de Andrade M, Tsourio C, Psaty BM, Basu S, Ruiter R, Rose L, Armasu SM, Lumley T, Heckbert SR, Uitterlinden AG, Lathrop M, Rice KM, Cushman M, Hofman A, Lambert J-C, Glazer NL, Pankow JS, Witteman JC, Amouyel P, Bis JC, Bovill EG, Kong X, **Tracy RP**, Boerwinkle E, Rotter JI, Tregouet D-A, Loth DW, Stricker BHC\*, Ridker PM\*, Folsom AR\*, Smith NL\*. A Genome-Wide Association Study for Venous

Thromboembolism: The Extended Cohorts for Heart and Aging Research in Genomic Epidemiology (CHARGE) Consortium. *Genetic Epidemiology. In Press*, 2013.

Diehr PH\*, Thielke SM, Newman AB, Hirsch C, **Tracy R**. Decline in health for older adults: Five-year change in 13 key measures of standardized health. *J Gerontol A Biol Sci Med Sci. In Press*, 2013.

Varadhan R, Yao W, Matteini A, Beamer BA, Xue QL, Yang H, Manwani B, Reiner A, Jenny N, Parekh N, Fallin MD, Newman A, Bandeen-Roche K, **Tracy R**, Ferrucci L, Walston J. Simple biologically informed inflammatory index of two serum cytokines predicts 10 year all-cause mortality in older adults. *J Gerontol A Biol Sci Med Sci. In Press*, 2013.

Shea MK, Booth SL, Miller ME, Burke GL, Chen H, Cushman M, **Tracy RP**, Kritchevsky SB. Association between circulating vitamin k1 and coronary calcium progression in community-dwelling adults: The multi-ethnic study of atherosclerosis. *Am J Clin Nutr. In Press*, 2013.

### Christina Wojewoda, M.D.

Evaluation of the Verigene Gram-Positive Blood Culture Nucleic Acid Test for the Rapid Detection of Bacteria and Resistance Determinants. **Wojewoda CM**, Sercia L, Navas M, Tuohy M, Wilson D, Hall GS, Procop GW, Richter SS. **Article: Accepted** to Journal of Clinical Microbiology. 2013 Apr. 17.

Pathology Consultation on Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry for Microbiology. **Wojewoda CM. Article: Accepted** to AJCP. 2013.





## RECENT GRANTS AWARDED

### Russell Tracy, Ph.D.

**U34 DK091958 (Pittas) 06/01/13 - 05/31/18 NIDDK**

#### Vitamin D to Prevent Type 2 Diabetes (D2d)

This is a multicenter, randomized (1:1), double-masked, placebo-controlled primary prevention parallel-group clinical trial with 2 arms (oral daily vitamin D vs. placebo) in participants at high risk for diabetes (with pre-diabetes) who will be followed for an average of 3 years after randomization for incident diabetes. The aim is to assess whether, in participants with pre-diabetes, oral daily vitamin D3 supplementation reduces the rate of progression from pre-diabetes to clinical diabetes.

**U24 AA022001 (Justice/Freiberg) 09/01/12 - 08/31/16 NIAAA**

#### Translational Research on Alcohol, Immunodeficiency and Aging in COMpAAAs

This proposal will collect and bank longitudinal samples (blood, urine and DNA) with which to characterize the interaction and physiologic impact of alcohol and age-related multimorbidity and polypharmacy on immune dysfunction and organ system injury among HIV+ initiating cART and demographically and behaviorally similar uninfected individuals.



## RECENT REGIONAL, NATIONAL, AND INTERNATIONAL PRESENTATIONS

### Kossivi Dantey, M.D.

**Poster Presentation: Paris at the 18<sup>th</sup> Congress of the International Academy of Cytopathology.**

- “SOLITARY SUB-SOLID PULMONARY NODULES: A PARTICULAR AREA OF CONCERN IN FNA CYTOPATHOLOGY” K Dantey, J Klein, A Maxwell, Sharon Mount, Gladwyn Leiman.

### Christine Jabcuba, M.D.

**Poster Presentation: Paris at the 18<sup>th</sup> Congress of the International Academy of Cytopathology.**

“HOW IMPORTANT IS FINE NEEDLE ASPIRATION IN PLASMA CELL NEOPLASMS? REVIEW OF THIRTY CASES AT A USA ACADEMIC CENTER” – C Jabcuba, Gladwyn Leiman.

### Mairin Jerome (Medical Student)

**12<sup>th</sup> International Congress on Cleft Lip/Palate and Related Craniofacial Abnormalities, Orlando, FL, May 6-10<sup>th</sup>, 2013.**

- Primary Cleft Lip Repair: Nutritional Assessment and Surgical Risk in Assam, India. **Poster presentation.**

### Nancy Swords Jenny, Ph.D.

**53<sup>rd</sup> Annual Conference on Cardiovascular Disease Epidemiology and Prevention**

- Jenny NS, McClelland R, Jorgensen N, Garg P, Burke G, Criqui M, Greenland P, Rosenson R, Siscovick D, Cushman M (2013) Associations of lipoprotein-associated phospholipase A<sub>2</sub> mass and activity with coronary artery calcium: The Multi-Ethnic Study of Atherosclerosis (MESA). **(Poster)** .

### Gladwyn Leiman, M.D.

**Invited/Platform Presentation: Paris at the 18<sup>th</sup> Congress of the International Academy of Cytopathology.**

“THE LIFE, TIMES AND LEGACY OF MAURICE GOLDBLATT Esq”” Gladwyn Leiman.

### Brooke Mossman, Ph.D.

**10th International Particle Toxicology Conference, Dusseldorf, Germany, June 4, 2013**

- Plenary Lecturer: “New data on how asbestos fibers interact with cells to trigger extracellular signal-regulated protein kinase (ERK) pathways critical to toxicity and disease”

### Sharon Mount, M.D.

**USCAP Cytopathology for the Practicing Pathologist, New Orleans; Invited Speaker**

- FNA metastasis of the unknown primary: making the most out of uncertainty
- Effusion cytology: making the most out of scattered cells
- Atypical glandular cells: managerial and histologic implications.

**Oklahoma State Cytology Society; invited speaker. April 2013**

- Atypical glandular cells on Pap Test: the agony of AGC
- Effusion cytology: an algorithmic approach

**33<sup>rd</sup> Annual Meeting of New England Association of Gynecologic Oncologists (NEAGO) Abstract Presentation, June 14, 2013, Connecticut**

- Uterine Leiomyosarcomas: immunoreactivity patterns for vascular epithelial growth factor (VEGF), estrogen receptor, and Ki-67 with clinical correlation and potential therapeutic implications. S. Couture, B Schlappe, C Wong, S Mount, E Everett.

### Jennifer Sauter, M.D.

**Presentation: Paris at the 18<sup>th</sup> Congress of the International Academy of Cytopathology.**

“TESTING OF INTEGRATED HPV MRNA DECREASES COLPOSCOPY REFERRALS AT A TERTIARY ACADEMIC INSTITUTION IN THE UNITED STATES” – J Sauter, R Bryant, C Wojewoda. T St John, Gladwyn Leiman.

## RECENT REGIONAL, NATIONAL, AND INTERNATIONAL PRESENTATIONS

### William Pendlebury, M.D.

**UVM Center on Aging 2013 Annual Gerontology Symposium. March 2013. Burlington, Vermont.**

- Moderator, Panel on “Elder Justice and Quality of Care: Promising Partnerships on the Use of Antipsychotics in Long-Term Care.

**Eighth Annual Vermont Geriatrics Conference. April 2013. Montpelier, Vermont.**

- Biomarkers and beyond: the science of diagnosing Alzheimer’s disease.

**UVM Center on Aging 2013 Annual Gerontology Symposium. June 2013. Rutland, Vermont.**

- Normal aging: inevitable but modifiable.

### Russell Tracy, Ph.D.

**The 2013 Annual Meeting of the Uganda-Russia Boston Alcohol Network for Alcohol Research Collaboration (URBAN ARCH); Featured Speaker – Boston, MA – 2013.**

**University of Sao Paulo 2013 Conference; Invited Speaker**

- From the Complex Etiology Of Diseases To Translational Strategies - Sao Paulo, Brazil - 2013.

### Jessica Wood, M.D.

**Wood J., Mount S, Harmon M. “Atypical Glandular Cell (AGC) Diagnosis on Pap Tests and Human Papillomavirus (HPV) testing: Can reflex HPV Testing in women under 35 reduce the number of women referred for colposcopic examination? Poster Presentation (#164). 18th International Congress of Cytopathology, Paris May 2013 (Dr. Sharon Mount co-author).**

### Christina Wojewoda, M.D.

**Association of Public Health Labs**

- Webinar – Reporting Critical Results for Microbiology



# NEW APPOINTMENTS TO HOSPITAL COMMITTEES, UVM COLLEGE OF MEDICINE COMMITTEES, HONORS

## COMMITTEES

### Laura Green, M.D.

- Admissions Committee UVM College of Medicine

### Gladwyn Leiman, M.D.

- Reappointed to FAHC Institutional Review Board

### Debra G.B. Leonard, M.D., Ph.D.

- FAHC Strategic Management Committee  
(Dr. Brumsted leads)
- UVM Dean's Advisory Committee on  
Diversity & Inclusion
- UVMMG Medical Board Committee
- UVMMG Research & Education Committee
- UVMMG OneCare Clinical Advisory Board  
Committee

### Russell Tracy, Ph.D.

- Reappointed to FAHC and FAP  
Boards of Trustees

### Christina Wojewoda, M.D.

- Medical Records Committee

## HONORS

### John Lunde, M.D.

- Nominated, Foundations Teaching Award, UVM  
College of Medicine Class of 2015
- Nominated, Silver Stethoscope Award, UVM  
College of Medicine, Class of 2015





## AWARDS

### Yvonne Janssen-Heininger, Ph.D. - Laboratory Honorable Mentions

**Sidra Hoffman**, Ph.D. Candidate (Maastricht University Medical Center). Sidra Hoffman was awarded the following scholarship attend a course at the Jackson Laboratories in Bar Harbor, Maine - July 2013:

*"You have been awarded a scholarship in the amount of \$1000.00 provided by the March of Dimes to be credited toward your registration fee for the 54th*

*Annual Short Course on Medical and Experimental Mammalian Genetics. Please consider this message your official scholarship notice. "*

**Benjamin Lane**, Undergraduate Student, won:

Distinguished Undergraduate Research Award - May 2013:

*"Awardee: The Emerging Infectious Diseases Fellowship Program sponsored by the CDC, June 2013".*

### Massive Transfusion Protocol Team Won the "Becoming One" Award - July 10th



Team Name:

*"Improving the massive transfusion protocol with failure mode effects analysis and multidisciplinary team simulation"*

Team Members' Names:

Mark Fung, M.D.	Medical Director of Blood Bank
Paulette Hammond	Supervisor, Blood Bank
Sharon Bushor	Technical Specialist, Blood Bank
Margaret Tandoh, M.D.	Trauma/Critical Care
John Fortune, M.D.	Trauma/Critical Care
Jennifer Gratton, RN	Trauma Program Manager
Sally Lewis, RN	Staff Nurse III, OR
Sue Hale, RN	Nurse Educator, SICU
Deb Smith-McMahon, RN	Nurse Educator, ED
Mike Wehner	Manager Patient Support & Telehealth Services
Alicia Cardoza	PRISM-Clinical Informatics Specialist
Karen Fragnoli-Munn RN, CMQ/OE	Quality Improvement Consultant

## AWARDS

### Massive Transfusion Protocol Team Won the “Becoming One” Award - July 10th (continued)

The “Becoming One” team award, as part of our enhanced recognition program, was developed to celebrate the successes of cross-disciplinary teams who engage in work that results in a positive, direct impact on patient care or customer service.

The Massive Transfusion Protocol has been in existence at FAHC for many years, and is used primarily by Emergency department, the Operating Room and Intensive Care Units. Although it is mainly used in these areas in essence, it can be utilized anywhere. The Massive Transfusion Protocol is about simplifying blood ordering, pickup and keeping up with blood loss at an exsanguination rate in traumatic situations (ie: traffic accident, traumatic bleeding event)! The standard of delivery involves 4 units of RBC’s and 4 units of Plasma which represents 2 liters of product.

Although, FAHC currently has a Massive Transfusion Protocol in place, due to infrequency of use by multiple providers and variation in practice, the process can be viewed as complex and ineffective (high risk, low frequency process). Upon review, the Team identified several issues with current protocol resulting in delay in delivery of care. Thus, in accordance with FAHC’s Strategic Initiatives for 2012-2013 moving Fletcher Allen from a highly functioning organization to “high reliability” organization, the Team decided to reduce system failures by more effective use of the established MTP protocol.

After careful review of current state and the potential for failures using the Failure Modes and Affects Quality methodology, a group convened in July of 2012 to improve the protocol and minimize any possibility of failure. This team consisted of stakeholders across the organization including: Emergency Department, ICU, OR, Blood Bank, Patient Support Services, PRISM, Surgical Residents and Trauma Services.

The goal was to implement a protocol that was: standardized, adhered to when consistently used, concise, easy to understand/follow, quick/less complicated with fewer steps, fool proof/reliable, and rarely fails.

The FMEA process greatly improved delivery as confirmed with a simulation using blood bank staff, ICU-OR-ED nurses, a surgery resident, patient support staff and Quality.

The Team accomplished the following:

- Redesigned protocol upon review of SAFE events and known problematic areas with current MTP
- Conducted a Failure Modes and Effects Analysis (FMEA), a quality methodology used to proactively reduce level of risk or failure
- Developed Communication/Education tools
- Simulated re-designed process with a cross-organizational team

By pairing the new improved protocol design with actual simulation, we engaged staff to use knowledge, skills experience, ideas and questions to test and enhance further design.

Congratulations to the great work of our Blood Bank members and the rest of the Team!!



## RECENT PROFESSIONAL ENDEAVORS

### Yvonne Janssen-Heininger, Ph.D.

- Appointed as Associate Editor, July 2013: American Journal of Respiratory Cell and Molecular Biology/ AJRCMB

### Brook Mossman, Ph.D.

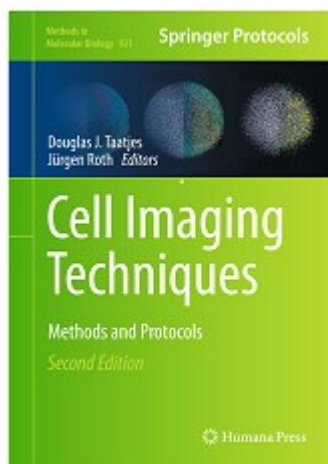
- National Service Activities: Chair, Special Emphasis Panels for the review of Program Project grants, NHLBI, on May 13, 2013 and June 13, 2013
- Scientific Advisory Board of the Mesothelioma Applied Research Foundation (MARF), Washington, DC

### Arti Shukla, Ph.D.

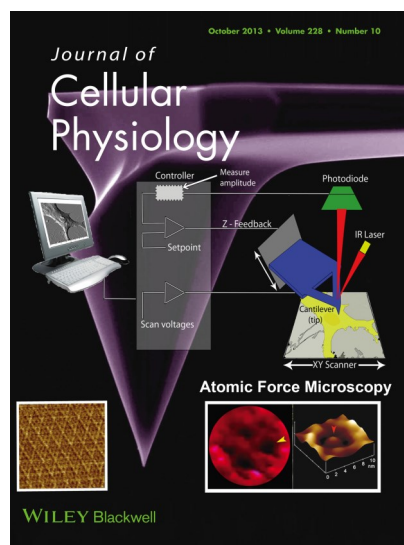
- Invited to participate in NCI Peer Review Panel, March 28-29, 2013.
- Our Lab was selected for tour to Colchester High School Students as part of Vermont Cancer Clinic Outreach Program, April 1, 2013.

### Douglas Taatjes, Ph.D.

- Doug Taatjes had the second edition of his edited book "Cell Imaging Techniques" published by Springer in late fall of 2012. Since its online publication on Oct 02, 2012, a total of 3399 chapter downloads have occurred through Springer Link, placing the book in the top 25% most downloaded eBooks in the relevant Springer eBook Collection in 2012.



- The following announcement appeared in Vermont Cancer Center e-alert Newsletter May 22, 2013: Announcements: Doug Taatjes' Imaging Featured "The utilization of advanced imaging approaches by Doug Taatjes has been featured as the cover story in Journal of Cellular Physiology. Doug provides the Vermont Cancer Center/ UVM investigators with exceptional capabilities for imaging at the cellular level. His strategies and technologies have been important for visualizing dynamic parameters of structural and functional components to the regulatory mechanisms for gene expression, replication and repair.



## NEW RESIDENTS & STUDENT FELLOWS & FELLOWS IN DERMATOPATHOLOGY, SURGICAL PATHOLOGY, CYTOPATHOLOGY

### NEW RESIDENTS



**Javier De Luca-Johnson** - University of Vermont College of Medicine - "Javier De Luca-Johnson was born in Argentina, but grew up in North Carolina. As an undergraduate he majored in chemistry at the Naval Academy (Go Navy!) and for medical school he attended UVM. He is

married with one daughter and is expecting another child in August. He also has two cats. "



**Jill Miller** - Creighton University School of Medicine - "Jill Miller grew up in California in a small town named Copperopolis. For my undergraduate education, I attended Gonzaga University and ran cross country and track where I met my husband. I went to medical school at Creighton University in Omaha, NE. My family and I moved to Vermont in

2010 and I completed a preliminary year in internal medicine and postdoctoral research fellowship in Environmental Pathology. "



**Lauren Pearson** - Touro University-California College of Osteopathic Medicine - "Lauren Pearson is originally from the San Francisco Bay Area. I grew up in Santa Cruz as the oldest of six kids. My favorite thing in life is spending time with friends and family. I will miss the beach and the mountains on the west coast but I look forward to discovering all that the east coast

has to offer."

### NEW STUDENT FELLOWS

Beginning March 18, 2013 – March 17, 2014



**Mairin Jerome**

Mairin Jerome - "I am very excited to be a Pathology Student Fellow. The Fellowship offers the opportunity to deepen my knowledge and enrich my understanding of anatomy, physiology, and pathology. I believe this year of additional training will make me a more competent and effective physician, as well as a better educator for both patients and the next generation of doctors. Thank you all for making me feel so welcomed."



**Gabriel (Eli) Morey**

Gabriel (Eli) Morey - "I see pathology as a wide new world that answers the question I was asking throughout my clinical rotations: What is actually going on within this person? I also love the descriptive aspect: Is that vermiform, starry sky, nuclear grooving, pseudopapillary, dislodging, honeycombing, or is it just lumpy bumpy? With the knowledge I gain this year I hope to expand my differential and gain a deeper appreciation of the pathophysiology of disease."

### Dermatopathology Fellow

#### Blythe Bowman

Residency: University of South Alabama College of Medicine, Mobile, AL  
M.D. University of Arkansas for Medical Sciences, Little Rock, AR

B.S. University of Central Arkansas Honors College, Conway, AR

### Surgical Pathology Fellow

#### Brian McMillin

Residency: Northwestern Memorial Hospital, Chicago, IL  
M.D. Boston University School of Medicine  
B.S. Boston University

### Cytopathology Fellow

#### Michelle Horton

Michelle Horton went to medical school at Texas College of Osteopathic Medicine in Fort Worth, TX. Michelle's residency was at Augusta Georgia at the Medical College of Georgia Michelle was also a Flight Surgeon in the Navy.



## TRANSITIONS FOR GRADUATING SENIOR RESIDENTS

### GRADUATING SENIOR RESIDENTS

#### Jessica Bekker, M.D.

Graduating from the dermatopathology fellowship program this month and then starting a job in Madison Wisconsin as a general pathologist (AP/CP) for Meriter Hospital.

#### Aaron Klein, M.D.

Graduating from cytopathology fellowship program this month will be starting a private practice at Pacipath in Springfield, Illinois.

#### Cherie Paquette, M.D.

##### **Where are you going?**

"University of Virginia in Charlottesville."

##### **Why are you going there?**

"Two fellowships in a row, one year each. After that, who knows? I would be happy to come back to Vermont!"

##### **What was your favorite pathology department celebratory activity?**

"Tina's yearly dessert extravaganza."

#### Chelsea Tooke, M.D.

##### **Where are you going?**

"I'm excited to be going to Ann Arbor, Michigan for 1 year Transfusion Medicine fellowship at the University of Michigan."

##### **Why are you going there?**

"I interviewed at some really great places, but when it came time to decide, the choice was pretty clear. I felt that the department in Michigan was very well run and very collaborative, and I got the sense that the attending staff would be great educators and mentors for me."

##### **What was your favorite pathology department celebratory activity?**

"The activity that I loved (and will REALLY miss this coming year) was helping the department celebrate the holiday season with music. It was really special to be part of such a fun and diverse ensemble of musicians (where else do you get to hear a violin, cello, trombone, and saxophone play holiday tunes together?!)."

#### Sarah Brownschidle, M.D.

Dr. Brownschidle will be staying with us for an additional year as our Cytopathology Fellow. ■

## COMMUNITY SERVICE ACTIVITIES

### Christina Wojewoda, M.D.

- Mentor for First Strides

### Sharon Mount, M.D.

- American Medical Women Association (AMWA) hosted the “Girls in Science Day” at UVM on May 11, 2013.
- Faculty Sponsor for the AMWA, hosted a potluck dinner and discussion at our home in March, 2013.