PATHOLOGY University of British Columbia



Elisabeth Maurer, Clinical Associate Professor, Dept of Pathology & Laboratory Medicine / Canadian Blood Services Researcher Invents De Tice to L World Supply, Quality of Blood Platelets

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SUMMER / FALL 2006

FROM THE DEPARTMENT HEAD MAKING SENSE OF COMPLEXITY

The UBC Department of Pathology and Laboratory Medicine is the academic home to a wide variety of exceptional individuals who create and convey knowledge related to the causes (etiology) and mechanisms (pathogenesis) of disease, enabling translation into improved diagnosis, prognosis and management of patients and populations (service). This in large part defines the "business" we are in. The Department has major roles in undergraduate medical and residency education, continuing professional development-knowledge translation (CPD-KT), and in the education of allied health professions.

In addition, key features that distinguish this Department from others include its large and prominent cadre of faculty engaged in original research and in the scholarship of teaching, plus its sizable and thriving undergraduate (Bachelor of Medical Laboratory Science) and graduate (MSc, PhD) programs. A large proportion of Departmental academic activities occur in settings outside of UBC campus, including the regional health authorities, hospitals, agencies, research centres and institutes. The ongoing expansion of the medical undergraduate and residency programs to a province-wide distributed model underscores the reality of our being a geographically distributed Department.

To succeed, strong partnerships and alliances are necessary to leverage for effective collaborations and synergies, a highly challenging yet crucial task. Overall, the Department does not and cannot exist in isolation.

How can one begin to approach and optimize this high degree of complexity? When I was attending a conference earlier this year in San Diego, I went out for dinner one balmy evening and, while sitting on the restaurant patio, I could not help but notice the large aircraft carrier that was docked in the harbor. On or attached to this ship was a huge array

of aircraft: helicopters, support watercraft, fixed and movable armaments, radar systems and so on. Clearly, each



Richard Hegele, MD, FRCPC, PhD

of these components is critical toward ensuring the overall success of the aircraft carrier's mission, but their relationships to each other may not be readily discernible if viewed through a narrow lens.

Furthermore, much of the "action" associated with the aircraft carrier typically occurs at a considerable distance from the main ship, such that there is a great deal of individual responsibility and discretion required for dealing with the immediate tasks at hand, yet done without losing sight of the overall purpose of the enterprise.

Moreover, it did not escape me that aircraft carriers do not have the reputation of being the most nimble or maneuverable of vessels: in this respect, the Departmental administration works very hard to navigate through various compulsory processes and procedures of the University and our partners. In this latter aspect, the Departmental administration continues to work to enhance lines of communication and increase clarity to enable desired outcomes that are supported by robust processes.

This issue of the UBC Department of Pathology and Laboratory Medicine's Newsletter provides a sampling of the types of activities and interests occurring within our academic home. Please take the time to familiarize yourself with some of the recent developments, particularly in those areas that may not be part of your day-to-day experience, to better understand what we are all about and to think in terms of how we can advance the Department to higher levels of performance and accomplishment.

Events Calendar

University-Wide Orientation for new UBC staff and faculty

Monday, Nov 20, 2006 9:00 am - 12:30 pm Cecil Green Park House cost: free

Departmental Meeting & Seasonal Cheer

> Thursday, Dec 14, 2006 3:00 pm - 6:30 pm UBC Medical Student and Alumni Center

The Thirteenth Annual Practical Pathology At Whistler

> Tuesday, Feb 13-16, 2007 Fairmont Chateau Whistler Resort, Whistler, BC, Canada re register: http://www.pathology.ubc.ca/education/CME.htm

Path Day (Tentative Schedule)

Thursday, May 24-25, 2007 More to come soon. Contact smartin@pathology.ubc.ca if you have any questions

The 19th International Union for Health Promotion and Education (IUHPE) World Conference

> Sunday, Jun 10-15, 2007 Vancouver, BC http://www.iuhpeconference.org/ en/index.htm



Faculty Recognition Awards UBC

2006

Excellence in Education: Dr. A. Bradley, BSc, PhD Dr. V. Monsalve, BSc, MSc, PhD

Excellence in Research and Discovery: Dr. C. Wellington, BSc, PhD

Excellence in Service: Dr. J. Frohlich, MD, FRCPC

Lifetime Achievement Award: Dr. W. Godolphin, BSc, PhD, FACB

Teaching Excellence Award, BMLSc Program Awards:

Dr. M. Pudek, BSc, PhD and Dr. J. O'Kusky, BSc, MSc, PhD

Philip E. Reid Memorial Cup: Dr. W. Godolphin, BSc, PhD, FACB

UBC Killam Teaching Award: Dr. C. Park, BSc, MSc, PhD

The Spencer Award for IT Innovation: Dr. N. Kelly, BA, PhD

Merit Award, St. Paul's Hospital Foundation Prize, Trainee Travel Award:

Dr. M. Esfandiarei, BSc, MSc, PhD

BC Innovation Council: Lieutenant Governor's Technology Innovation Award:

Dr. B. McManus, MD, FRCPC, PhD, FACC, FCAP

Alumni Achievement Awards, UBC 2006 Recipient - Outstanding Young Alumnus:

Dr. D. Granville, BSc, PhD

FROM THE EDITOR



This issue contains information on different academic, clinical and research opportunities within our department. The next issue of the Pathology Newsletter will be published in June 2007.

The Pathology Newsletter is an attempt to enhance communication within the department. In order to succeed, this publication will rely upon your submissions, suggestions, comments, and ideas. Please submit brief notices of research and teaching accomplishments, activities

in your respective units, awards, presentations, grants and donations, alumni news, hiring and promotions, publications, guest lecturers, presentations featuring student or faculty work, and other news of interest to the Pathology community. The Pathology Newsletter will be published bi-annually, (November and July), but you are welcome to submit your article any time through out the year.

Certain events provide great photo opportunities. When you suspect a potential photo op, let me know about it. Photos are urgently needed for Web and publication projects. You can reach me at 822-7093 or *dbertanjoli@pathology.ubc.ca*. We need high resolution (300 dpi) images for print publications. We can reduce high-res images for Web use, but we cannot enhance low-res images for print publications.

Thanks for reading,

Debbie Bertanjoli Newsletter Editor

Requests for CVs

The departmental office requests updated CVs twice a year – at the beginning of July and the beginning of each calendar year (for various purposes like research, production of reports, to examine one's academic performance during the previous year, promotions etc). Despite these regular expectations staff often have to phone individual faculty members and "beg" for their CV submissions. If an updated CV is not received in January, it is presumed that the individual has nothing to add to their CV.

You can submit /request your CV via e-mail from Debbie Bertanjoli at dbertanjoli@pathology.ubc.ca .

WELCOME NEW FACULTY

Eleven new Faculty joined our department in 2006

Daniel T. Holmes, *Clinical Assistant Professor, St. Paul's Hospital*. Dr. Holmes received his undergraduate degree from the Univ of Toronto in Chemical Physics. Subsequently, he completed his MD and residency training (in Medical Biochemistry) at the Univ. of British Columbia. His academic interests include clinical lipidology and endocrinology, laboratory medicine statistics, and mathematical modeling in medicine. He has been teaching in the UBC undergraduate medical program and the Bachelor of Medical Laboratory Science program for 4 years. He looks forward to new and continued teaching and research collaboration with members of the departments of Pathology & Laboratory Medicine, Medicine, and Surgery.

Diana N. Ionescu, Clinical Assistant Professor, BC Cancer Agency. Dr. Ionescu joined the BC Cancer Agency as a Consultant Pathologist and the UBC Faculty of Medicine as a Clinical Assistant Professor in August 2006. Dr. Ionescu graduated from the Univ of Medicine and Pharmacy "Iuliu Hatieganu" in Cluj Napoca, Romania and did her residency training in Anatomical and Clinical Pathology at the University of Pittsburgh Medical Center, followed by a Fellowship in Gynecological Pathology at Vancouver General Hospital. One of Dr. Ionescu's main interests is in Pulmonary Pathology. Prior to her residency training Dr. Ionescu did a Postdoctoral Fellowship in pulmonary research with Dr. J. Hogg at the iCAPTURE Center, and during her residency focused on gaining extensive diagnostic experience by collaboration with Dr. Yousem at UPMC and Drs. K. Leslie and T. Colby at the Mayo Clinic. She is the recipient of several awards from the Pulmonary Pathology Society and the recipient of a Donald King Fellowship from the AFIP. She is the author of over 30 publications and abstracts and a book chapter. Dr. Ionescu's diagnostic interests are in pulmonary, gynecological and breast pathology and her research interests are in the implementation of molecular techniques in oncologic pathology. She also serves as a certified inspector and spokesperson for the College of American Pathologists. In addition, Dr. Ionescu is actively involved in telepathology and web-based continuing medical education as the designer and facilitator of the CME accredited "Case of the month" on www. ePath.ca. In her spare time Diana enjoys promoting the role of the pathologist to the community.

Peter van den Elzen, *Clinical Assistant Professor*, *Children's & Women's Health Centre of BC*. Dr. van den Elzen received his medical degree from the Univ of Calgary, and did additional training in immunology research as a medical student at McGill and Stanford University. After medical school he completed an Immunology Research Fellowship at the La Jolla Institute for Allergy and Immunology in San Diego in the lab of Eli Sercarz. He then went to Boston to complete a Clinical Pathology Residency at the Brigham and Women's Hospital and Harvard Medical School. He completed an Immunology Fellowship at Harvard in the lab of Michael Brenner. In the Brenner lab, his research led to the discovery of a new role for apolipoproteins in the immune system (published in Nature, 2005). The article about this work, published by the Harvard Med School Press, can be found at http://focus.hms. harvard.edu/2005/Oct14_2005/immunology.shtml

His present position is as a clinician-scientist, where he has an 80% research role studying immunology with particular emphasis on autoimmunity and lipids. His 20% clinical role is as a Hematopathologist at Children's, with a particular interest in flow cytometry and clinical immunology, He hopes to expand the role of the clinical immunology lab in the immune monitoring of patients with immunologic, inflammatory and infectious disease.

Gayle Shimokura, *Clinical Assistant Professor, St. Paul's Hospital.* Dr. Shimokura has been the Health Care Epidemiologist and Surveillance Officer for Providence Health Care's Infection Prevention and Control Team for the last two years. Her current research interests include designing and evaluating hospital-based interventions that prevent transmission of healthcare-associated infections, developing web-based and automated methodologies to conduct communicable disease surveillance, and elucidating the spread and epidemiology of antibiotic-resistant organisms in Vancouver's Downtown Eastside. Prior to moving to Vancouver, she spent a year at the Centers for Disease Control and Prevention's Division of Viral Hepatitis in Atlanta GA. Her dissertation was on dialysis-acquired hepatitis C virus infections in U.S. dialysis centres from the University of North Carolina's School of Public Health.



Daniel T. Holmes, BSc, MD



Diana Ionescu, MD



Peter van den Elzen, BSc, MD



Gayle Shimokura, BSc, MSc, PhD

All three newly hired staff pathologists at the BCCA are left-handed, a real challenge for the department in providing them with three lefthanded microscopes.



Gregory J. Naus, BA, MD



Patrick K.C. Tang, BSc, MD, PhD



Bernd O. Keller, PhD

WELCOME NEW FACULTY

continued

Gregory J. Naus, Clinical Professor, BC Cancer Agency. Dr. Naus is a graduate of Cornell University Medical College. He completed his anatomic pathology post-graduate training at New York Hospital and a Fellowship in gynecologic pathology at Columbia University of Physicians and Surgeons – Presbyterian Hospital. He served as the Medical Director of Gynecologic and Breast Pathology at Magee – Women's Hospital of the University of Pittsburgh from 1989-2000 and as the Residency, Fellowship and Education Program Director for the Department of Pathology since 2002. He was promoted to Professor of Pathology at the University of Pittsburgh School of Medicine in 2002 and elected to the Academy of Master Educators in 2006. He is the author of over eighty scientific papers, book chapters, abstracts and invited reviews in Gynecologic and Breast Pathology and is the recipient of more than 25 awards for medical education, including the Chancellor's Distinguished Teaching and the Sheldon Adler Teaching Technology Innovation awards; the latter in recognition of his design of the nationally recognized computer mentoring system: SocraTease. His current research interests include the development and implementation of efficient and effective computer-assisted problem-based instructional systems in graduate and post-graduate medical education, the design of prognostic models of integrated tumor cell analysis in tumors of the breast and female genital tract and the design and implementation of quality assurance and utilization procedures in anatomic pathology. Dr. Naus joins The British Columbia Cancer Agency as a Senior Consulting Oncologic Pathologist and as Clinical Professor of Pathology at the University of British Columbia Faculty of Medicine.

Patrick K.C. Tang, *Clinical Assistant Professor*, *BC Centre for Disease Control*. Dr. Tang will be joining the BCCDC as a Medical Microbiologist. He completed a combined MD/PhD focusing on bacterial pathogenesis in the laboratory of Dr. B. Brett Finlay at UBC. After finishing his residency training in Toronto, he conducted two years of post-doctoral research in the laboratories of Drs. Don Ganem and Joseph DeRisi at UCSF where he hunted for viruses in various malignancies. Dr. Tang brings expertise in molecular diagnostics, microarrays and bioinformatics, and he hopes to apply this in the clinical microbiology laboratory. He will continue searching for novel agents in infectious diseases as well as infectious etiologies in chronic diseases and cancer.

Bernd O. Keller, *Assistant Professor, Children's & Women's Health Centre of BC.* Dr. Keller specializes in bioanalytical mass spectrometry, having obtained his Ph.D. in Analytical Chemistry from the University of Alberta. Prior to UBC, Dr. Keller was the Laboratory Coordinator of the Alberta Cancer Board Proteome Resource Laboratory at the University of Alberta (2000-2003). He helped establish the facility, purchase instrumentation, train graduate students and staff, and managed all aspects of the Lab, including active participation in numerous interdisciplinary research collaborations. From 2003-2006, at the Department of Chemistry at Queen's University in Kingston, Ontario, Dr. Keller established and managed the new mass spectrometry laboratory, and was involved in various multidisciplinary projects. Dr. Keller was also an appointed Adjunct Professor, teaching advanced graduate courses in Modern Mass Spectrometry and its applications. Dr. Keller's research interests are mainly focused in the development of state of the art, sensitive, and robust mass spectrometric methods for biomolecule characterization. Dr. Keller's breadth of research experience will lead in the development of new methods applied to interrogate proteomic and metabolomic research questions in interdisciplinary research projects as for example in the Nutrition Research Program at the Child & Family Research Institute.

WELCOME NEW FACULTY

continued

Linda Hoang, *Clinical Assistant Professor, BC Centre for Disease Control*. Dr. Hoang completed her residency in Medical Microbiology with the UBC Department of Pathology and Laboratory Medicine in June 2006 and has since joined the Department as Clinical Assistant Professor and the BC Centre for Disease Control as Medical Microbiologist, Head of the Bacteriology, Enterics and Mycology Program there. She received her MD from UBC in 2001, and prior to that, her MSc in Physiology at UBC in 1997. Her interests are in emerging pathogens, healthcare acquired infections and international medicine. During her residency she lead a collaborative research initiative between the BC Centre for Disease Control and the Centre for Hygiene and Epidemiology in Hanoi, Vietnam on emerging food and waterborne parasitic diseases, a project funded by CIHR Global Health. In addition, she obtained the Diploma in Tropical Medicine and Hygiene through the London School of Hygiene and Epidemiology. Her publications cover topics such as Cryptococcus gattii, capsule null locus strains of invasive Neisseria meningitidis, and Cyclosporiasis in BC, to name a few. She enjoys teaching and continues to be involved in the Medical Microbiology Residency Training Program, now as the BCCDC Site Director.

Katherine Ceballos, *Clinical Assistant Professor*, *BC Cancer Agency*. Dr. Ceballos completed her medical school training at Dalhousie University, followed by an Anatomical Pathology Residency at UBC and a Gynecologic Pathology Fellowship with Dr. Dean Daya at McMaster University in 2001. Her areas of interest include breast and gynecologic oncologic pathology, especially as it relates to improving clinical practice and patient care. Her research interests include a range of topics in breast and gynecologic pathology. She has collaborated on projects identifying prognostic features in endometrial and ovarian carcinomas, and studying HPV related neoplasia of the gynecologic tract. She is involved in projects assessing the reproducibility of the diagnosis of cervical dysplasia and in assessing the impact of pathology review on the treatment of breast cancer patients.

Dr. Ceballos joined the BC Cancer Agency as a Consultant Pathologist in June 2006. She also has an appointment with the UBC Department of Pathology and Laboratory Medicine as a Clinical Assistant Professor. Prior to arriving in Vancouver Dr. Ceballos was a consultant pathologist at Henderson Hospital in Hamilton Ontario, the host hospital of the Juravinski Cancer Centre (formerly Hamilton Regional Cancer Centre).

Justin Lo, *Clinical Instructor, Prince George Regional Hospital*. Dr. Lo graduated from UBC Pathology in the summer of 2005. This was accomplished by attempting two research projects, spending time in the resident's room and meeting minimum requirements of the Royal College. During this time, he learned how to turn on a microscope and achieve Kohler illumination as well as gaining basic competency in the histologic diagnosis of common human diseases. In addition, some effort was given to learning the nitty-gritty of hematology, chemistry and microbiology. After residency, Justin moved to Prince George where he enjoys the fulfillment of days filled with clinical service and medical student teaching. On a more personal note, he likes mountain biking and snowboarding. His dislikes include absence of clinical history, inflammatory skin diseases and mountain pine beetle.

Katherine Tsang, *Clinical Instructor, Prince George Regional Hospital.* Dr. Tsang is a Consultant Pathologist at Prince George Regional Hospital who was appointed to the UBC Faculty of Medicine as a Clinical Instructor in July, 2006. She graduated from the Univ of British Columbia, Honours Physiology and she received her medical degree from the Univ of Calgary in 1989. Dr. Tsang completed her residency training in Anatomical Pathology at the University of Calgary and subsequently did a 6-month fellowship in Cytopathology Fellowship at Foothills Hospital. Being a mother of 3 children, her hobbies and interests have been deferred until retirement.



Linda Hoang , BSc, MSc, MD



Katherine Ceballos, BSc, MD



Photo Not Available

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RESEARCH HIGHLIGHTS

By: Andrew M. Churg, AB, MD, PhD

THE LAB OF DR. CHURG & DR. WRIGHT

Chronic obstructive lung disease (COPD) has been steadily increasing in incidence and is now the 4th leading cause of death in North American and Europe. Nonetheless, when Drs. Churg and Wright published the first model of cigarette smoke-induced emphysema in a laboratory animal in 1990, their paper was largely ignored.

Times have changed and now many labs are using animal models to investigate the pathogenesis of COPD. The lab of Dr. Churg and Dr. Wright has particularly looked at two areas: the mechanisms behind the inflammatory response to cigarette smoke, and interventions to prevent the effects of cigarette smoke.

Drs. Churg and Wright showed that the inflammatory response to smoke is very largely dependent on TNFœ signaling, and also reconciled competing claims about the inflammatory cells that drive the process by demonstrating a connection between macrophages, matrix metalloprotease-12, TNFœ, and neutrophil infiltration, the latter most likely the cells that are crucial to destruction of the lung matrix and eventual emphysema. They also demonstrated that serine elastase inhibitors can be used to ameliorate the development of emphysema in mice and guinea pigs, thus showing that it is possible to produce treatments that may stop the progression of COPD.

Current work in the lab is focused on two other aspects of COPD. Using laser capture microdissection and real-time RT-PCR, these investigators demonstrated that cigarette smoke rapidly upregulates expression of genes that control vasoconstriction and vasodilatation in small intrapulmonary branches of the pulmonary arteries, and that these changes correlate over the long term with muscularization of the pulmonary arteries and pulmonary hypertension.

These findings contradict a long-held belief that pulmonary hypertension in COPD is related purely to emphysematous destruction of vascular bed and hypoxia.



From left: Ms. R. Wang, Dr. J. Wright, Mr. X.S. Wang & Mr. J. Hua

Similar techniques are now being applied to the pathogenesis of small airway remodeling, an important cause of airflow obstruction in cigarette smokers. Using both tissue culture and in vivo models, it appears that smoke directly upregulates a variety of profibrotic cytokines, particularly TGFß, in the airways via an oxidant mechanism. This again contradicts the conventional wisdom that small airway remodeling is caused by inflammation. Both the pulmonary hypertension and small airway remodeling data suggest new targets for therapeutic interventions.

The lab of Dr. Churg and Dr. Wright is currently supported by grants from the Canadian Institutes of Health Research, the Heart and Stroke Foundation of British Columbia, and collaborative research agreements with several pharmaceutical companies.

Drs. A. Churg , J. Wright and S. D. Shapiro of Harvard University were awarded the prestigious Alton Ochsner Award for Research Relating Smoking and Health in 2005 for their work in elucidating the mechanisms of emphysema.

EDUCATION HIGHLIGHTS

By: Jason C. Ford, MD, FRCPC

"Pathologists at UBC are among the most 'popular" in the country"

In an article¹ published almost twenty years ago in Archives of Pathology and Laboratory Medicine, Richard Vance described a survey² of medical students at North Carolina's Bowman Gray School of Medicine, now the Wake Forest University School of Medicine. The students (Class of 1971) were asked about their opinions of pathologists, and their changing perceptions were tracked over time.



Vance summarizes the results as follows:

"Pathologists were considered to be morbid characters who enjoyed constant contact with the dead. [Italics in original.] The reason for these judgments, students claimed, had to do with perceptions of pathologists as insecure, uncomfortable, and ill at ease with others, and inept in interpersonal communication, shy, introverted, aloof, and cold. Interestingly enough, further encounters with pathologists tended to reinforce these conclusions for students, in that 27% of the freshman class and 58% of the senior class responded in this way."

This would be a fairly damning (not to mention hilarious) indictment of pathologists, if it were true, but I think it is safe to say this is not an accurate representation of pathologists at the University of British Columbia. Indeed, if the career choices of students are a reliable indicator of their judgment of various specialists, then there is some evidence to suggest that pathologists at UBC are among the most "popular" in the country.

Using data from the Canadian Resident Matching Service (CaRMS) over 12 years, from 1993 to 2004, the first choice residency preferences of Canadian medical school graduates show that pathology is the preferred option of about 1.2% of graduates overall ³, a figure which is similar to data from the UK and USA.

However, this average masks substantial differences between schools: some, such as Memorial University of Newfoundland and McMaster University, generated very few students who ranked pathology first (approximately 0.3% from each, over 12 years). Others, such as the University of Ottawa and UBC, graduated many more who selected pathology as their first choice of careers (approximately 1.8% and 2.0% respectively).

Either these latter schools admit medical students who are more pathologydirected in the first place, which seems unlikely, or there is something about the education they offer which is more "pathology-positive". Surely one likely explanation is that "pathology-positive" schools may offer their students more contact with pathologists, or that the pathologists themselves do a better job making the specialty appear interesting and attractive.

With the advent of the "new" curriculum at UBC, and the consequent loss of PATH 425—a course which no doubt did much to attract a generation of pathologists to the specialty—one might imagine that UBC students would now lack the opportunities to interact with pathologists which they had pre-1997. *cont'd on page 10*

Pathology rounds at C&W are generally held every Tuesday morning at 0830 in room 2J38, with a once per month exception on the 2nd Tuesday when the department holds its monthly Business meeting instead.

Rounds are part of the Royal College's Maintenance of Certification [MOC] Program, and, as such, are registered and accredited through the college. Rounds are scheduled by Dr Tom Mock who, in his capacity as Chair of the Education Committee, is always on the lookout for willing presenters. To arrange, call Dr. Mock at 875-7478, or email him at tmock@cw.bc.ca. If you would like to be placed on the distribution list for a weekly notice, email Leeanna at *lsimons@cw.bc.ca* and she will gladly add your name.

cont'd from p. 9

But there is evidence to challenge this assumption. First, students graduating from UBC in the four years prior to the institution of the new curriculum had an average likelihood of 1.4% that they would rank pathology first in their residency applications; in contrast, the first four graduating classes in the new curriculum were more than twice as likely (3.4%) to choose pathology as a career.

Second, the amount of "face time" which students at UBC spend with pathologists remains substantial. If we include lectures, labs, and small group sessions (excluding problem-based learning tutorials), pathologists at UBC spend more than 530 instructor hours teaching during the first two years of the MD program.

This represents by far the greatest contribution of any Department in the Faculty of Medicine, at approximately 43% of total instructor time in Years 1 and 2. The next greatest contribution is from the Department of Anatomy & Cell Biology, at about 22% of the total. There are certainly other potential explanations for pathology's popularity at UBC: if it is unlikely that UBC students are morbid, death-obsessed introverts, who simply find common cause with Vance's pathologists, then perhaps UBC does recruit more pathology-positive students at the outset. But a likelier explanation for UBC's success in generating pathologists is the time and effort which pathologists here invest in undergraduate medical education. The Department of Pathology and Laboratory Medicine at UBC is, in many respects, the backbone of the pre-clinical curriculum. To paraphrase Osler: as goes your pathology, so goes your medical education.

References

¹Vance RP. Role models in pathology: a new look at an old issue. Arch Pathol Lab Med 1989;113(1):96-101. ³Coombs RH. Mastering Medicine: Professional Socialization In Medical School. New York: The Free Press, 1978 ³Ford JC. Influence of a problem-based learning curriculum on the selection of pathology as a career: evidence from the Canadian match of 1993-2004. Hum Pathol 2005; 36: 600-604.

A Week of Paleopathology in France By: Maria V. Monsalve, BSc, MSc, PhD

The anticipation of an examination in French was certainly intimidating", says Vicky (she did pass) but "overall it was a very educational and energizing experience.

Have you ever wondered how scientists identify diseases in ancient human remains? This was a question that Vicky Monsalve had been pondering when she signed on for a course in paleopathology offered in France last July by Marseille's University of the Mediterranean.

Vicky became one of thirteen international academics to take the intensive one week program in diagnosing skeletal pathologies through anatomical, histological and X-ray analyses. Each student worked with several human bones, examining them for lesions caused by taphonomic (environmental conditions affecting preservation of animal or plant remains) and pathological processes. University instructors prominent in the field delivered lectures and guided practical exercises.

All participants stayed on-site in the enchanting Alpine village of L'Argentière-La-Bessée; students continued learning in the company of the five instructors during meals and evening conversations on a wide variety of related topics (plus cheese tasting and local history). By the end of the course, students were able to examine ancient skeletons and make differential diagnoses for traumatic injuries, tuberculosis, leprosy and arthritis, among other conditions.





Photo by: V. Monsalve - Alpine village of L'Argentière-La-Bessée

CLINICAL NEWS

By: Diana N. Ionescu, MD

CUTTING EDGE T E C H N O L O G Y

Today, CTAG offers pathologists the chance to get involved in the modern molecular testing of tomorrow.

Molecular pathology is the underpinning of individualized therapy and thus represents the future of pathology practice. In Vancouver, we are now equipped to embrace this future with the completion of the state-of-the-art Centre for Translational and Applied Genomics (CTAG). CTAG is one of the services of the Provincial Health Services Authority (PHSA) and is located at the British Columbia (BC) Cancer Agency's Vancouver Cancer Centre, with satellite sites at Children's and Women's Health Centre of BC and the BC Centre for Disease Control.

This genomics facility is truly unique in North America and is designed to be the platform for translating basic science molecular techniques into clinical laboratory tests, thus improving the diagnosis and management of conditions such as cancer, infectious diseases, and inherited disorders.

CTAG is well positioned to lead the transformation of laboratory medicine from a diagnostic to a predictive specialty, and is expected to become the knowledge generation engine for PHSA laboratories. Within the CTAG laboratory, grant funded research runs in parallel with assay development studies for the clinical laboratories. CTAG offers a wide range of genomic and molecular analysis services to the private and public sectors for a fee, and the facility is also preparing to offer fee-for-service tests for patients outside the province as well as for non-Canadians. Preparation for such an ambitious agenda includes applying for international accreditation and licensure by the College of American Pathologists (CAP) and US federal government's Clinical Laboratory Improvement Amendments (CLIA-1988), which establishes recognized quality standards for all laboratory testing involving human samples.

There are many examples of how CTAG has already impacted the clinical world within PHSA. Because of my long interest in the area of molecular testing of solid tumors, I became directly involved with CTAG in the validation of clinical assays for FISH and sequencing analysis in lung cancer patients, a test used to assess the possible response status of these patients to anti-EGFR therapy. I am also excited to work with CTAG on the development of specific molecular panels used to distinguish primaries from metastases in cases of synchronous or metachronous tumors of similar histology.

Today, CTAG offers pathologists the chance to get involved in the modern molecular testing of tomorrow. It also makes available to the residents and research trainees the unique opportunity to get outstanding training in one of the most competitive and quickly developing field of surgical pathology. For further information, a quick tour or to become directly involved with CTAG contact CTAG's Business Affairs Manager, Alicja Parker at 604-877-6000 x 2605.



The International Academy of Pathology 100th Anniversary

Congress took place this year in Montreal between September 16th and 21st. Several members of our department participated as invited speakers in symposiums (ISS) and slide seminars (ISSS) or moderators (M) for sessions in various fields of surgical pathology.

- John English (M): "Pulmonary tumors"
- *Blake Gilks* (ISS): "Molecular alterations in non-endometrial carcinoma"
- *David Huntsman* (ISS): "Familial cancer: The link between GI and breast"
- Diana Ionescu (ISS) "Applications of microdissection techniques in pulmonary pathology"
- Julie Irving (ISS, ISSS) "Simultaneous adenocarcinomas of uterus and ovaries" and slide seminar on "Value of immunohistochemistry in gynecological pathology"
- *Edward Jones* (ISSS): "Genito-urinary pathology"
- Andrew Churg (Short Course Director): "Atypical mesothelial proliferations"
- *Bruce McManus* (M): "Biomarkers of heart allograft rejection"
- *Torsten Nielsen:* "Microarray analysis of soft tissue tumors"

We congratulate these UBC Faculty Pathologists for their academic achievement.



ACADEMIC NEWS

By: Niamh Kelly, BA, PhD

LEARNER-CENTERED APPROACH TO EDUCATION

The Medical Microbiologists in our Department are an infectious lot when it comes to spreading new teaching and learning 'bugs'.

Higher education is currently undergoing a paradigm shift whereby the transmission of information in the form of a lecture is being reconsidered in favor of a learner-centered approach. The Medical Microbiologists in our department are at the forefront of this trend in harnessing the power of technology to promote just such a learner-centered approach.

It all started when Niamh Kelly (Associate Professor, Department of Pathology and Laboratory Medicine) began working with some of the Microbiologists in the Faculty of Science and with Tony Bates, then head of UBC's Distance Education and Technology (DET) unit (now called The Office of Learning Technology), to develop online learning material that would be central to UBC's Introductory Microbiology course. Along with her teaching in the Faculty of Science, Niamh also directed a course on Infectious Diseases delivered to upper level science students out of the Pathology department, called "Bacterial Infection in Humans" (PATH 417).

While Niamh was becoming aware of new horizons in teaching and learning coming into view as she learned more about educational technology, Elizabeth Bryce (Clinical Professor, Department of Pathology and Laboratory Medicine) who team taught PATH 417 with Niamh, was becoming aware of the power of small group, case based learning through her experiences

PHSA LABORATORIES EDUCATION DAY

By: Susan Michel Nye, PHSA Corporate - Laboratory Services

The inaugural PHSA Laboratories Education Day took place on Saturday October 21st at the Chan Education Centre on the Women's & Children's Hospital site. The theme of the day was Quality and the intent was to provide education on ISO 15189 (Medical Laboratories – Particular Requirements for Quality and Competence) and on uality initiatives being undertaken in laboratories across the province. The addition of general interest topics made the program both diverse and entertaining.

Sponsored by Bayer Inc., PHSA Laboratories staff and invitees from other health authorities were treated to presentations from a variety of interesting and knowledgeable guestspeakers. These included author and media personality Dr. Art Hister (Keys



Dr. Mike Noble and Dr. Diana Ionescu were invited speakers at the PHSA first Education Day Seminar

to a Longer, Healthier & Happier Life); Quality Management System expert and medical Microbiologist, Dr. Mike Noble; BC Cancer Agency pathologist, Dr. Diana Ionescu speaking on recent advances in telepathology; forensic pathologist Dr. Dan Straathof, who had

received special permission from the First Nations to present his investigations of the oldest preserved human remains ever discovered in a North American glacier. Additional topics were: Ergonomics in the Workplace by occupational therapist Daphne Lee and a presentation on Lean Manufacturing by consultants Kathryn Kolbuch and Jamie Bowman. The session was opened with greetings from Dr. Dirk

van Niekerk, Acting Interim Medical Director for the BC Cancer Agency and Michael Marchbank, PHSA Executive Vice President for Quality Management, Performance Improvement and Innovation.

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with the 'new' PBL medical curriculum.Aligning these two teaching and learning forces resulted in the "Bacterial Infection in Humans" PATH 417 course being developed as an online course constructed around case based learning. The course is designed around student learning and the learning occurs when students, working first on their own and then in groups, are directed to acquire content by working through case scenarios. Understanding of the content is pushed to deeper levels through the use of self-directed, e-portfolio driven learning, accompanied by peer and instructor-facilitated learning. The course is delivered over the WWW, using the WebCT platform, with students and instructors communicating through discussion boards online. (A demonstration site of this course can be viewed at: www. webct.ubc.ca using loginID: pathdemo and password: PATH 417 demo).

Having caught the distributed learning 'bug' Elizabeth joined forces with Diane Roscoe (Clinical Professor, Department of Pathology and Laboratory Medicine) and with the aid of the DET unit developed the first in what has now become a series of online learning courses. The Department of Pathology and Laboratory Medicine (and the Department of Health Care and Epidemiology) offer a series of courses leading to a Certificate in Infection Prevention and Control. The certificate program consists of three online courses: "Basic Principles of Infection Prevention and Control" (PATH 427); "Basics of Medical Microbiology for Infection Control" (PATH 467); and "Basic Epidemiology for Infection Control" (PATH 477 / HCEP 401) along with a self-directed clerkship in Infection Control. Fred Roberts (Professor Emeritus, Department of Pathology and Laboratory Medicine), who teaches the PATH 467 course, was unable to resist the infectious teaching and learning 'bug' when subjected to it by his highly infectious colleagues, Elizabeth and Diane.

These online Pathology courses have now engaged hundreds of learners from Campbell River to Quebec. The original PATH 417 online course, developed by Niamh and Elizabeth, has been written up in Effective teaching with technology in higher education: foundations for success, Bates, A. W., & Poole, G. (2003). Meanwhile, Niamh has been invited to engage with faculty from a variety of Universities and Colleges in introducing them to the learner-centered approach to education which is being promoted with these online case-based Pathology courses. She was honoured to receive UBC's Spencer Award for IT Innovation this year.

THE WILLIAM BOYD MUSEUM OF PATHOLOGICAL SPECIMENS HAS MOVED!

By: Helen Dyck, Education Support Manager

The William Boyd Museum has moved from the 3rd floor of JPN to the new Diamond Health Care Centre on the corner of 12th and Oak. It is now located on the second floor of the DHCC (room 2201), the same floor as the VGH branch of the UBC Biomedical Library and the 2nd year Medical Student seminar and clinical skills rooms.

The Museum has a collection of over 1500 pathological specimens and is now housed in a single, dedicated room. This will allow access to the specimens when other teaching sessions are in progress. We would like to thank Dr. Jennifer Davis for her dedication as curator of the museum during her time with us, and for her input into designing the new space.

Dr. Davis began a program for high school students, who would come and tour the museum and receive an information session

The William Boyd Museum Photo by: Helen Dyck

and exercises to increase their knowledge of disease processes. We are hoping to be able to continue these sessions now that she is retiring.

Access to the room is currently limited as we do not have a staff person on site to have the museum open set hours. There is card access which uses the VGH ID cards, so if you would like to access to the museum please contact Helen Dyck (*hdyck@pathology.ubc.ca*).

GRADUATE PROGRAMS

By: David Walker, BA, MA, PhD

Te currently have about 100 graduate students in laboratories at the seven sites including UBC. The largest numbers 20, 27 and 30 are at CRFI/CMMT/Children's, St Paul's and BCCRC/BCCA respectively. While there are about 10 students each at VGH/Jack Bell Res. and UBC, only a few are located at the BCCDC and one at the Eye Care Centre. Of these students, 64 are PhD students and 34 are MSc students. In addition, there are 3 MD/PhD students. Over the last year we have graduated 12 students (six PhD and six MSc) and acquired 13 new graduate students since January 2006. Over the last three years, of 22 PhDs who have finished their degrees, five earned ratings of 1 (the best rating) from both the external examiners and the thesis defense committees. Given the ambiguity of the criteria used to make these decisions this constitutes a good performance by our students.

A few significant changes have been made in the mechanics of the PhD program in the department. Perhaps the most significant is the making of the internal defense of the PhD thesis optional.

This decision was made in response to a survey of students and faculty in the department after discussion in the Graduate Committee. Although an internal defense is no longer required, each member of the committee must now sign off on the thesis indicating that they believe that it is of sufficient quality for the final university defense. Some faculty and students continue to organize and have internal defenses. As Graduate Advisor I like that there is choice. A second significant change to the program is that the comprehensive exam may now be more closely related to, but not a part, of the PhD thesis, and there must not be an existing grant for the proposal within the laboratory. Neither should it be a project that is currently being done by others within the laboratory. It may, however, be a logical extension of the work being undertaken for the PhD, but not destined to become a part of the thesis. I believe this has made the process of formulating an acceptable comprehensive exam topic a clearer process while retaining the aims of this exam format.

A few of significant changes are also being made in response to student opinion gleaned from exit interviews and a comprehensive survey done by now consists of four lecture/laboratory session on normal histology followed by introductory level lectures and laboratory sessions on topics of pathology like necrosis, apoptosis, inflammation, wound healing etc. Two topical lecture/labs are included to round out the semester. The Winter term beginning in January will carry on the same format used in previous years where selected faculty present a current paper and background to students to review and critique. In addition the course now only meets on Fridays form 2 until 5 PM. For the histology and histopathology we have begun to use the Aperio imaging system, an amazing system that promises to largely replace the light microscope in the teaching laboratory. Changes in response to student issues with Pathology 535/635 or Graduate Student Seminars



Dr. Walker & Dr. Hegele with students

Dr. Veronica Hirsch-Reinshagen's of fellow students. First, Path 500 has now been expanded to cover two terms and its credit value corrected. The fall term are also on going. A couple of years ago it was decided that first year graduate students would receive instruction in poster production and, in lieu of giving

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a talk in the spring, they now compose a poster. This year we are also reducing the number of times PhD and MSC students are required to present their work before graduation. There is also the intent to have some residents present to acquaint students to the clinical perspective. Because of the Tuition awards imposed upon departments it has been necessary to stipulate that any new admissions to the program who are either plan to or are beginning a PhD, their supervisors must agree to provide that money to the department for at least the next two years. The Department is continuing to pay the Tuition award for all current PhD students and MSc students who declared their intent to do a PhD. This is unfortunate but the department was given no real alternatives. I would like to sincerely thank all of those faculty

REPRESENTATIVE FOR THE PATHOLOGY GRADUATE STUDENTS

Veronica Hirsch-Reinshagen, MD (Chile)



Representative for the Pathology

Thave been the Representative for the Pathology Graduate Students since May 2005. It has been a rewarding assignment and I am very grateful for this opportunity. One of the most satisfying tasks was to conduct, in collaboration with Penny Woo and Dr David Walker, a survey among Graduate Students evaluating the Pathology Graduate program.

More than 70% of the students answered the questionnaire, allowing us to obtain a clear picture of what students perceived as strengths and weaknesses of the program. An anonymous summary of all answers was then presented to the Graduate Studies Committee. The Committee Members welcomed all suggestions and dedicated a considerable amount of time to discuss each of the

I was born and raised in Santiago, Chile. I completed my general medical training in The Catholic University of Chile in January 2002 and have been working under Dr Cheryl Wellington's supervision since October of that year. I joined the Pathology Graduate Program in January 2003 and am now preparing for my PhD defense, which will hopefully take place in February 2007.

I enjoy reading and have lately discovered my passion for hiking. I am very curious and I love to find answers and clues to questions that interest me, which is probably why I like my work so much. I can't say no to good food, wine or a dance, and dogs will catch my attention anywhere.

> points raised by the students and to incorporate the suggested changes into the curriculum. It is my hope that this survey contributed to the improvement of the Departmental Graduate course work and helped to foster the communication between Students and Faculty.

Finally, I would like to encourage Faculty Members to attend the raduate Student Seminars.

In my opinion, Graduate Students would greatly benefit from the comments and suggestions that Principal Investigators from other laboratories may have about their work. In addition, Faculty would have a unique opportunity to realize the breadth and depth of the Research carried out in this Department. who contribute so much to the Graduate Program and I think everyone involved would like to thank Penny Woo for all that she does to keep things running as smoothly as it does.

Finally, as Veronica Hirsh-Reinshagen is nearing the end of her PhD I would like to thank her for the outstanding job she has been doing as student representative to the Graduate Committee.



Congratulations to Brian Schick, Graduate Student in the MSc Program with Dr. J. Frohlich, whose oral poster presentation titled

"Decreased Skeletal Muscle Mitochondrial DNA in Patients on High-Dose Simvastatin Therapy" was named Runner-Up for the Student Presentation Award in Clinical Science at the Canadian Cardiovascular Congress in Vancouver, October 24, 2006.

This Award was first presented in 1986 to recognize the scientific merit and excellence of presentation and research work done by a resident, research fellow, or graduate student in a training program.



UBC PATHOLOGY & LABORATORY MEDICINE RESIDENCY TRAINING PROGRAM By: Michael Nimmo, BA, BSc , LLB, MD , LMCC, FRCPC

The UBC Pathology and Laboratory Medicine Residency Training Program [the "Program"] is in the midst of an exciting expansion phase. The Program has trainees in each of the five Laboratory Medicine specialties that are currently recognised by the Royal College. The total number of residents in the Program is 32. There are 14 residents in Anatomical Pathology, nine in General Pathology, four in Medical Microbiology, 4 in Hematopathology, and one in Medical Biochemistry.

The Program will have six entry residency positions for the coming 2007 CaRMS match. There were 32 applicants for the six positions offered in the 2006 CaRMS match. Three candidates were matched in the first iteration and an additional three candidates were matched in the second iteration. The increased number of positions is due to the increased number of students in the Medical School. In order to attract enough qualified applicants to apply for these positions, Department members are encouraged to discuss pathology as a career with medical students that display an interest and aptitude for pathology. Any

suggestions for raising the profile of the Department and pathology in general are welcome.

In addition, as of July 1, 2006 there is a new training program in Transfusion Medicine. This is a two year fellowship program established under the guidance of Dr. G. Growe. There is currently one candidate who began training in July 2006. We anticipate that this fellowship program will be well received.

The current program directors are Blake Gilks (Anatomical Pathology), Mike Nimmo (General Pathology), Wilson Yeung (Hematopathology), Andre Mattman (Medical Biochemistry), Patrick Doyle (Medical Microbiology), and Wayne Moore (Neuropathology).

It seems appropriate that the Department takes this opportunity to extend thanks to Drs. Louis Wadsworth (Hematopathology) and Gillian Lockitch (Medical Biochemistry) for their dedicated service as Program Directors over the past years. The respective programs thrived under their supervision and Wilson Yeung and Andre Mattman have inherited strong programs.

HEMATOPATHOLOGY PROGRAM

By: Nick Au, Hematopathology Chief Resident

Hematopathology is a subspecialty of pathology and laboratory medicine dealing with blood and bone marrow diseases, lymph node disorders, coagulation disorders, and transfusion medicine. The Hematopathology Residency training program is a five-year postgraduate medical training program. After one year training as an intern, residents have three years of training in various areas of hematopathology and one year of training in clinical hematology.

This year the residents are very excited about two new educational blocks in the training program. The first is a new transfusion medicine rotation that has been developed by Dr. Kate Chipperfield. With the help of many other medical faculty, technologists and clinical nursing staff, this block will provide training in different aspects of transfusion medicine including quality assurance, serological testing, and the clinical practice of transfusion medicine.

In addition to hematopathology residents, trainees in clinical hematology and general pathology also participate in this rotation. Another new lecture series with special emphasis on laboratory issues of hematopathology has been organized by Dr. Bakul Dalal. This series will cover the aspects of hematopathology that residents may have limited exposure to during their training, including laboratory management, specimen processing, and equipment purchasing.



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The Post-Graduate Deans' Office and the Government are to be congratulated for making funds available to enhance the Program. These monies have enabled the Department to fund administrative support and to purchase much needed teaching equipment. The current Program Assistants are Bonnie Quan-Symons [AP, GP, NP, MM and MB] and Darlene Kikuchi [HP and transfusion medicine]. Bonnie and Darlene are doing a tremendous job ensuring that things run smoothly. Twelve new Nikon eclipse 400 ergonomic microscopes and six new Olympus BX 45 ergonomic microscopes have been purchased and distributed to the various sites. The funds have also been used to purchase new multihead teaching microscopes for VGH and a new projecting microscope for SPH. Perhaps most exciting is the long overdue relocation and expansion of the AP residents' room at VGH. With the increased numbers of residents, ever increasing numbers of students, and requirements for modern technology, the VGH AP resident room has become woefully inadequate. The new location will be the old Transfusion Medicine area.

Recent graduates have fared very well; all passed the Royal College Exams and have obtained staff positions or fellowships. David Grynspan [AP] has accepted a fellowship position in Pediatric Pathology in Detroit, Zainab Abdul Rhaman [AP], a fellowship position in GI pathology at VGH, and Stephen Yip [NP], a fellowship position in neuropathology at Massachusetts. Quentin Nakonechny [GP] has accepted a position in Prince George, Linda Hoang [MM] a position at the BC CDC, and Dan Holmes [MB] a position at SPH. Diana Ionescu [fellow in gynepathology] has accepted a position with the BCCA. We wish them all well in their future careers!

The Program continues to train externally funded residents. These include residents from Saudi Arabia, Kuwait and Libya. There are currently 5 externally funded residents in Anatomical Pathology, and one externally funded resident in each of Medical Microbiology, Hematopathology, and Medical Microbiology. In addition, there are three residents that have obtained re-entry positions. One in general pathology, one in hematopathology, and one in medical microbiology. The increased number and quality of residents will ensure that the Program continues to thrive.

The 2006 Resident/Graduate student research Day took place in May. All third and fourth year residents, as well as fellows, presented the results of clinical and basic research studies carried out the previous year. The external adjudicator was Dr. Richard N. Kitsis, of the Albert Einstein College of Medicine. The awards for Best Oral Presentations went to Carol Lee: "Right ventricular lipomatosis and fibrous tissue in cases of non-cardiac death" and Billy Teng: "Presence and distribution of dendritic cells in inflammatory diseases of the central nervous system." The day culminated with a pleasant dinner and entertainment at Green College, UBC Campus.

Several of the residents are taking advantage of opportunities to further their education. Dr. Chang Han Lee is currently working on a research elective at Stanford and has been accepted for a 2 year fellowship at Harvard following the completion of his residency training. Dr. Tony Ng has been accepted to the Clinical Investigator Program and is doing a Masters degree under the supervision of Dr. Poul Sorenson.. Dr. Jefferson Terry is currently completing his PhD at UBC under the supervision of Dr. Torsten Nielsen. Finally, we would like to take this opportunity to thank all those involved in the many aspects of the residency

in the many aspects of the residency program. If it was not for your continued support and help the Program could not survive.

25 YEAR EVENT

The 25 year club honours staff members with 25 years or more of service to UBC. The following Pathology staff members are invited to a reception in their honour on January 18th 2007:

Janet Chantler, Professor Alison Clarke, Clinical Professor Evan Evans, Professor Emeritus Shirley Gillam, Professor Emeritus Judith Isaac-Renton, Professor

Gerald Krystal, Professor Andrew Leung, Research Asst/Tech 5 Joseph Tai, Associate Professor Joanne Wright, Professor Thomas Cooney, Clinical Associate Professor

From left: Q. Nakonechny, F. Hsu, G. Han & C. Lee

THE DEPARTMENT BIDS FAREWELL TO OUR DEAR FRIENDS AND COLLEAGUES DR. WILLIAM GODOLPHIN AND DR. EVAN EVANS ON JULY 7, 2006. A RECEPTION WAS HELD IN THEIR HONOUR ON THAT DAY.



From left: Dr. Evans, Dr. Godolphin and Dr. Hegele

Dr. Hegele presented retirement gifts and expressed his congratulations on behalf of the Pathology Department

BMLSc Graduating Class of 2006:

Suhanya Bhuvanendran (Technologist, CMPT)

Jennifer Born (Technologist, GPEC)

Melanie Chin (Student, Undergraduate Medical Program, UBC)

Benjamin Lai (Student, MSc Program in Experimental Pathology, UBC)

David Lin (Student, MSc Program in Oncology, UBC)

Erika Mehl (Technologist, VGH)

Teresa Sharp (Medical Laboratory Technologist, Burnaby General Hospital)

Challayne Smith (Technologist, GPEC)

Dylan Thomas (Technologist, Forestry)

Frankie Tsang (Student, MLT Diploma Program, BCIT)

Jennifer Xenakis (Student, MSc Program in Occupational and Environmental Hygiene, UBC)

BACHELOR OF MEDICAL LABORATORY SCIENCE (BMLS**c**) PROGRAM

By: Joanne Wouterse, Program Assistant

This year marked the twenty-fifth year the Department has graduated students from its successful Bachelor of Medical Laboratory Science Program. Eleven students received their BMLSc degrees in May 2006, bringing the total number of program graduates to 323.

At a reception for graduates and their families held following the official UBC Congregation, a number of students were recognized for their outstanding academic achievements:

- *Melanie Chin* Professor C.F.A. Culling Bachelor of Medical Laboratory Science Prize and Donald M. McLean Prize in Medical Microbiology
- David Lin B.J. Twaites Prize in Laboratory Administration
- *Erika Mehl* The Eugenie Phyllis and Philip Edward Reid Prize in Morphological Sciences
- Jennifer Born Prize for Best Presentations in Path 405



BMLSc Graduating Class of 2006

The graduates in turn recognized two outstanding instructors, Dr. Morris Pudek and Dr. John O'Kusky, who were awarded the BMLSc Graduates' Choice for Teaching Excellence. A special presentation was made to Dr. William Godolphin, on the occasion of his retirement. In recognition of his outstanding contributions to teaching in the BMLSc Program over the past 22 years, Dr. Godolphin was also presented with the Reid Memorial Cup. Approximately half of this year's graduates are currently employed as research assistants at clinical sites or on campus, or as medical laboratory technologists. Others are continuing their education in graduate studies, medicine,

or medical laboratory technology. This September 24 new third year students and 22 fourth year students enrolled in the program for the 2006-7 academic session. Four of the 46 students hold RT diplomas; the remaining students come from the Science stream.

Approximately 65 Department members participate in teaching the BMLSc students in a range of subject areas including Clinical Chemistry, Toxicology, Histology, Histochemistry, Microscopy, Laboratory Safety, Haematology, Immunology, Biochemistry, Cytology and Cytogenetics.

WHO THEY ARE, WHAT THEY DO AND WHAT THEY THINK DAVID G. HUNTSMAN, MD, FRCPC, FCCMG

Associate Professor of Pathology and Laboratory Medicine at the University of British Columbia, Genetic Pathologist for the British Columbia Cancer Agency (BCCA) and the British Columbia Hereditary Cancer Program (HCP), Director of the Genetic Pathology Evaluation Centre (GPEC), Vancouver Coastal Health Research Institute, and the Centre for Translational Research and Applied Genomics (CTAG), British Columbia Cancer Agency.

Dr. Huntsman has active research programs in hereditary gastric cancer and also the development of predictive and prognostic tissue based cancer biomarkers for a wide variety of tumor types. His gastric cancer research has resulted in the discovery of over half of known CDH1 (a hereditary diffuse gastric cancer susceptibility gene) mutations.

In addition, his pathologic study of specimens from prophylactic gastrectomies uncovered the common presence of occult gastric carcinomas; this alerted the medical community to the lack of sensitivity of standard endoscopic screening for diffuse gastric cancer detection.

Dr. Huntsman was also a member of the research team that discovered EMSY, a BRCA2 interacting protein. The amplification of the EMSY gene is clinically significant in breast and possibly ovarian cancers and overexpression of a truncated form of EMSY results in dramatic chromosomal instability. As collaboration is critical to his field, Dr. Huntsman leads or participates in a number of multidisciplinary research groups.



Sanofi-aventis presented GPEC with a \$250k unrestricted educational grant in support of our translational research efforts.

Recent News: The Globe and Mail, Jul 12, 2006, Eva Salinas

The stomach detective: Local pathologist identifies rare mutation that leads to fatal form of gastric cancer

The Globe and Mail profiles UBC genetic pathologist *David Huntsman*, in the news recently for finding a genetic mutation in a large U.S. family, a discovery that lead to 11 cousins having their stomachs removed to avoid a fatal type of stomach cancer.

"What I was expecting was to meet people who were feeling life was pretty lousy but were grateful they weren't going to get stomach cancer," he says. "And what was a really pleasant surprise was to meet 10 people who are really enjoying life and who are now looking forward to growing old."





As a teenager I read a vivid description of the joys of carving marble with hammer and chisel. This memory lay dormant until about seven years ago when I saw a one week stone carving course offered at the Vancouver Academy of Art. So I took a week off and signed up. It began with a Monday morning trip to Quadra Stone to pick out a piece of alabaster which I turned into a pit viper over the next week. I was hooked. It was like living a dream. I took three more classes each 8 weeks long during which I began and have finished three portrait busts, one of Nefertiti (not the famous one), and two from models hired for the course. Eventually I learned that the instructor Alberto Replanski had his own studio and a few students. I invited myself to join the group and he agreed. I have been doing most of my carving there ever since.



The Pit Viper



Carving of the Niobid (statue in Rome)



Egyptian Princess



Golgi Apparatus

The first big piece I attempted began as a commission but I am no longer willing to part with her. I have created my own version of the torso of a sculpture of the Dying Niobid, a piece currently held in a museum in Rome. About this time I was invited to join the B.C. Sculptors Society and have begun to show some of my work with them. As I was finishing my Niobid I went to a sculpture symposium in Marble Colorado run now for 18 years by Madeline Weiner, a well known sculptor in Colorado. The enrollment fee included a three cubic foot block of marble of your choice.

The piece I began then was inspired by a statue of a daughter of Ramses the 1st and has evolved into my Egyptian Princess. That was two years ago, during the beginning of my sabbatical leave, and she is almost complete. I have fallen in love with marble and so returned this summer to Marble and began a 2' x 1'x 1' marble sculpture of a golgi apparatus, my favorite organelle. Eventually, I will drill holes through the three secretory vesicles and make it into a fountain. Amongst the many joys I get from carving stone with hammer and chisel is the opportunity to share some of the incredibly beautiful things I have observed as a morphologist and cell biologist with anyone willing to take a look.

MEET THE PEOPLE OF PATHOLOGY - DR. DAVID GRANVILLE, BSc, PhD

Here is a chance to get to know your fellow employees. In each issue of the newsletter we will pose ten fun questions to a randomly chosen lucky employee. Our first "victim" is Dr. David Granville.

Assistant Professor Dr. David Granville is one of Canada's rising stars in cardiovascular research. He specializes in fathoming the mechanisms of cell injury and death in cardiovascular diseases from atherosclerosis (hardening of the arteries) to heart transplant rejection. He holds a Canada Research Chair in Cardiovascular Biochemistry in UBC's Department of Pathology and Laboratory Medicine and in fewer than 10 years has published 50 articles, four book chapters and has two patents pending to accompany the four he already holds. This years Dr. Granville received the Outstanding Young Alumnus Award from Alumni Affairs, UBC. Last year, Dr. Granville was



named by The Caldwell Partners and the Globe and Mail as one of Canada's Top 40 under 40 - individuals who have achieved great success under the age of 40. He also won a Young Investigator Award from the Canadian Society of Transplantation in 2004. More evidence of the confidence in his ability is provided by the number of scholarships and grants he continues to receive.

We posed these ten questions to Dr. Granville:

1. You just won the lottery, what's your first purchase?

Fund my research so I can do what I enjoy without the worries and restrictions associated with obtaining enough grant funding. Other than that, I've always wanted to own a bar called "The Lab". I wouldn't feel

as guilty calling home and saying I'm still in 'The Lab' brainstorming. (Joking of course...)

- 2. What are you reading right now? Dr. Seuss (Kids are 1, 4 and 6)
- 3. What do you do in your spare time?

Camping, coaching kids soccer, travel, home renovations.

4. What's the one thing you'd like to do before you die? Figure out a way to attenuate atherosclerosis. Other

than that I'd Live Like I was Dying and go skydiving, Rocky Mountain climbing, and bull riding!!!

5. What are you most proud of?

Family, beautiful wife and 3 boys, being able to return to UBC as a Faculty member, Canada Top 40 Under 40 award.

6. Favorite movie?

I don't have a favorite movie...just happy to be watching one without interruptions these days!

7. If you could travel anywhere in the world, where would you go? France for the 2007 Rugby World Cup.

8. If you had a chance to meet three people dead or alive, which three would you choose? Albert Einstein, Christian Barnard, Jonas Salk.

9. Favorite restaurant or type of food to eat?

So many great restaurants in Vancouver. Let's say the Cannery. Favorite food: Thai Food or pretty much anything that's not vegetarian.

10. Coke or Pepsi?

Coke (preferably with Rye!)



XVI INTERNATIONAL HIV/AIDS CONFERENCE - AUG 2006

By: Courtney Kang, Research Associate

The theme of the Toronto conference was *"Time to Deliver"*, which expresses the urgency of scaling up prevention and the anti-retroviral therapy worldwide, especially in the developing countries. The 24,000 delegates from all Prominent progresses reported in the conference included the identification of several natural protective molecules, from HIV-resistant individuals who are infected for many years without developing AIDS. These findings have the potential to add alternative weapons in fighting against the virus. A variety of

Dr. Julio Montaner, director of BC Centre for Excellence in HIV/AIDS addressed another tremendous advance in the simplification of the anti-HIV regimen, from 10 pills total/3 times a day in 1996 to the present single tablet once a day.

corners of the world included doctors, nurses, scientists, social workers, physiotherapists, care givers, activists, government officials, business men, even artists and religious leaders. Nowadays, everybody seems to have a role to play in helping deliver the knowledge, medication, test and care required to stop the spread of HIV, which infects some 40 million people on earth, and a further 4 million more each year. novel vaccine candidates have also been under intensive investigation. This is where our best tool for prevention lies. Another effective approach, microbicide, might be available much faster because at least a dozen such substances are now under clinical trials. They attracted broad attention through out the conference.

Microbicides are believed to fill an important gap in our ability to prevent

HIV and other sexually transmitted diseases (STDs). They will be particularly helpful in protecting women, many of whom do not have the social or economic power necessary to insist on condom use and fidelity or to abandon partnerships that put them at risk.





Mark Wainberg, McGill AIDS Centre Director

BCNET 2007 ANNUAL CONFERENCE

By: Vanessa Scott, BCNET Networking Society

Gain New Insights into Cutting-Edge Research and Education Technologies at the 2007 BCNET Annual Conference

On April 17 and 18, 2007, attend Western Canada's premier technology event for research and higher education at the BCNET Annual Conference.

Focussed on the theme "Making Connections: Shared Knowledge for Greater Innovation," the conference provides opportunities to network with some of BC's leading researchers, academics, executives and government leaders, and learn about the latest technologies that can enhance teaching, learning and research in the field of medicine.

The event's diverse program covers such hot topics as learning technologies and will feature tracks on health and 'tools for researchers'. Hosted by BCNET, the not-for-profit society that builds and manages British Columbia's high-speed research networks, the conference offers a unique chance to explore new ways of addressing technological challenges in health, research and education. In its sixth consecutive year, it will continue to expand as a forum for sharing information on the development of advanced networking technologies.

Sessions will include coverage of BCNET's Coolest Applications Contest, which in 2004/05 was won by Maggie Cheang, a PhD student in the Department of Pathology and Laboratory Medicine, for her development of the Genetic Pathology Evaluation Centre's tissue microarray image database. The database, which has contributed to new findings in international cancer research, is among the many applications at the University of British Columbia (UBC) made possible by its advanced, high-bandwidth BCNET connection.

This year's conference attracted 400 registered guests as well as 80 participants through webcasting. In spring 2007 at the Simon Fraser University (SFU) Harbour Centre campus, take advantage of the new opportunity to network with like-minded researchers and educators, and learn about technologies that can enable innovations in your field. Contact *info@bc.net* for more information.

MAKING A DIFFERENCE

By: Jenny Tai, Teaching Technician, BMLSc Program

It is surreal being back in Canada. I really believe that we are living in the best city in the world, and summer in Vancouver is too good to be true.

This past summer I volunteered for two weeks in a summer camp for the intellectually and physically disabled orphans in Hunan, China. It was an unforgettable experience. I still remember when I saw the babies in the orphanage; my heart was broken by seeing no hope in their eyes. They looked like they were dying from within. I felt totally helpless. We took sixty teenage orphans to the summer camp and, unlike a usual summer camp, where you just need to prepare and facilitate different activities,



in this summer camp I had to help the campers with personal care such as use of the bathroom, showering, eating, etc. Trust me, doing those tasks in a far from standard hygiene environment is a huge challenge. However, my heart keeps reminding me to love them the way they are and treat them the way I treat myself because they are just like us and need respect and unconditional love. After the summer camp was over, I could start to see the happiness and hope come into their eyes. It was my reward to see their transformation from withdrawal to openness to receive love. The Pathology Newsletter is published bi-annually. Suggestions from readers are both encouraged and welcome at any time.

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Current and back issues of all Newsletters can be found on the Departmental Website: http://www.pathology.ubc.ca

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