

News Pathology

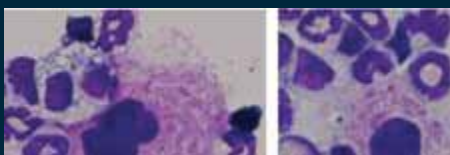
Fall/Winter 2009/10

The University of British Columbia

www.pathology.ubc.ca



RESEARCH



EDUCATION



HOLIDAY CELEBRATION



THE PATHOLOGY NEWSLETTER

Contents

1 *Overview*

- From The Department Head 3
- New Faculty Member(s) 4
- New Staff Member(s) 7

2 *Academic activities*

- Graduate Studies in Pathology 8
- Residency Training Program 12
- Undergraduate Medical Education 14
- Summer Student Program 15

2 *Research environment*

- GPEC 2009 17
- Nature Medicine, Abstract by Dr. Aly Karsan . . 18
- Recent Research Breakthrough from
Sam Aparicio's Lab 19
- Starting a New Laboratory in Pathology . . . 20
- New Study Identifies a Protein that Makes Breast
Cancer Cells More Invasive 22
- Pandemic Response Enabled by
Public Health Microbiologists 23
- Canadian External Quality
Assessment Laboratory 24
- The Seabird Island Indian Band Diabetes
Outreach Program Laboratory 25

3 *Meet the people of pathology / creative interests*

- Meet the People of Pathology 26
- The Art and Science of the Wan Lam Lab. . . 28
- Stained Glass Designs 30
- Announcements 31
- Holiday Festivities. 34

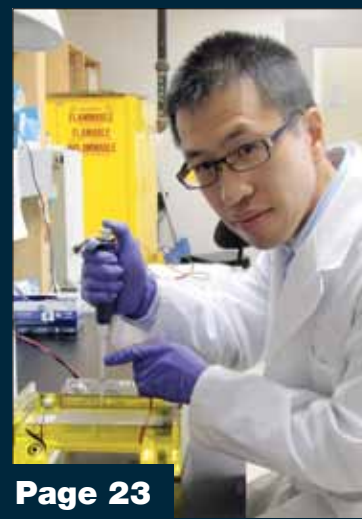
Features



Page 34



Page 26



Page 23



Page 8

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DEPARTMENTAL REFLECTIONS..

INTERIM HEAD GREETING

It has been a great privilege and pleasure for me to serve as Acting Head of the department for the past four months. Duties and activities as the Acting Head have enabled me to truly appreciate the breadth and diversity of talents in the community of scholars, educators and clinicians represented by our department and the potential for greatness that resides within this community.

Fall and especially winter are times of reflection as well as times to look forward to what the coming year and beyond might hold. So, it was timely and appropriate that I was recently asked, “Why do we exist as a department?”. I have been reflecting upon a potential response for some time since.

Pathology is a medical specialty concerned with diagnosis of disease and a scientific investigative discipline concerned with understanding mechanisms and pathogenesis of disease, with both aspects ultimately devoted to improving the care, treatment, and well-being of patients. It seems to me that a characteristic feature shared by these two sides to Pathology is knowledge, with Pathology playing a foundational role in the pathway of knowledge from its creation to its integration, dissemination, application, and interpretation. As a community our department excels at all steps in the pathway, a fact that I believe provides a response to the question about our purpose. The current issue of Pathology News, as others in the past have done, highlights selected examples of achievements along the pathway by members of the department.

We live and work in a complex environment that contains challenges as well as opportunities for the future. By defining and embracing what binds us together, building upon strengths, and working collectively, we can overcome the challenges and take advantage of the opportunities. Simply stated, tomorrow can be better than today...

Michael F. Allard BSc MD FRCP(C)

Professor & Interim Head

Department of Pathology and Laboratory Medicine University of British Columbia

WELCOME NEW FACULTY MEMBERS



Zohra Daw, MD, FRCPC
Clinical Instructor
LifeLabs Medical Laboratory
Services

Dr. Daw obtained her medical degree from Al-Fateh University, Tripoli, Libya where she was honored with the top ten student scholarship award to complete her post graduate studies. In January 2000, Dr. Daw's postgraduate journey started – first to Montreal to take her Medical Council of Canada exams, and then to Ottawa, to enroll in the Residency Training Program at Ottawa Hospital/ University of Ottawa . She obtained her FRCPC degree in Hematological Pathology in 2005 and then went on to a two year Transfusion Medicine fellowship program at the University of Ottawa/ Queens's University and Canadian Blood Services. Dr. Daw joined Life Labs' hematology department in October 2007.



Kent Dooley, PhD
Clinical Associate Professor
Children's & Women's Health
Centre of BC

Dr. Dooley obtained his PhD in Organic Chemistry from UBC in 1976. He then did a Post Doctorate Fellowship in Inherited Metabolic Diseases at the BC Children's Hospital. This was followed by a Clinical Chemistry Fellowship at the University of Texas in Houston where he was subsequently appointed to the position of Assistant Professor of Pathology at the University of Texas Medical Branch - Houston and Assistant Technical Director of Clinical Chemistry at Hermann Hospital. In 1981 he moved to the IWK Children's Hospital in Halifax, Nova Scotia to become the Head of Clinical Biochemistry. In 1984 he became a Founding Fellow of the Canadian Academy of Clinical Biochemists. In 1990 he assumed to role of Director of Pathology and Laboratory Medicine at the IWK Grace Health Center. Dr Dooley has the rank of Adjunct Associate Professor of Pathology at Dalhousie University. His primary clinical and research interests at Dalhousie University were in newborn screening, inherited metabolic diseases and pediatric and maternal-fetal clinical chemistry. From 1999 – 2007 he was the Chair of the Nova Scotia Newborn Screening Committee and from 2001 – 2003 President of the Canadian Society of Clinical Chemists. In 2007 he was awarded the Canadian Society of Clinical Chemists award for Outstanding Contribution to Clinical Chemistry. In 2007 Dr Dooley joined LifeLabs to be the Clinical Chemist at the LifeLabs Victoria Regional Laboratory. He maintains a consultant role with the IWK Health Center on matters of biochemical genetics and newborn screening.



Maged Hemida, PhD,
Postdoctoral Research Fellow,
St. Paul's Hospital

Dr. Hemida. is a new Postdoctoral fellow at Dr. Decheng Yang's laboratory. He received his PhD r from University of Guelph in Ontario in Feb 2009. Dr. Hemida is a Molecular Virologist. He is working under Dr. Yang's supervision on a project entitled "MicroRNA-mediated gene regulation in tissue tropism and pathogenesis in coxsackievirus infection". Dr. Hemida is very happy to join the iCAPTURE centre research team. He is inspired by good social spirit among all the people around and hopes to be able to participate in all the social events held.



Benjamin Jung, PhD
Clinical Instructor, Children's
& Women's Health Centre
of BC

Dr. Jung recently joined the Children's and Women's Health Centre of British Columbia in the Department of Pathology and Laboratory Medicine as a Clinical Laboratory Scientist. Born and raised in Toronto, Ontario, he studied at the University of Toronto in the Department of Pharmacology, obtaining his PhD in 2005. His doctoral thesis investigated the role of a family of epigenetic regulatory proteins during development, including that encoded by the MECP2 gene, which is responsible for Rett Syndrome in children. Following his PhD, Dr. Jung enrolled in the Postdoctoral Training Program in Clinical Biochemistry within the Department of Laboratory Medicine and Pathobiology, also at the University of Toronto, graduating last June. Dr. Jung has a strong interest in pediatric medicine and looks forward to research opportunities with colleagues, as well as opportunities to teach at the University of British Columbia. He and his wife are excited about moving to Vancouver with their daughter.

Dr. Cheng-Han Lee received his MD-PhD degree from the University of British Columbia in 2004. His graduate work was conducted under the guidance of Dr. Casey van Breemen (Pharmacology) and focused on intracellular signalling mechanism of vascular and airway smooth muscle cells. Dr. Lee subsequently started his Anatomic Pathology residency training in Vancouver. During his residency training, his interest in mesenchymal cell biology led him to pursue a one-year post-doctoral research fellowship (PGY-3) on the biology of mesenchymal malignancy (sarcoma) in Dr. Matt van de Rijn's laboratory at Stanford University. His work helped to demonstrate the importance of tumor-stroma interaction in the progression of leiomyosarcoma (malignant smooth muscle tumor) and to characterize the microRNA expression profiles in sarcomas. Diagnostically, Dr. Lee also developed a strong interest in tumors of musculoskeletal and gynecologic systems. Dr. Lee successfully completed his Anatomic Pathology training and Royal College examination in 2009. He is currently being supported by the UBC Clinical Investigative Program and the Department of Pathology to pursue a research/diagnostic fellowship on mesenchymal tumor biology and pathology in Dr. Jonathan Fletcher's laboratory at Brigham and Women's Hospital. His current work focuses on the genetics of uterine mesenchymal tumors and the mechanisms of tumor-stroma interaction in leiomyosarcoma. While he and his family are enjoying the old world charm of New England, Dr. Lee is looking forward to a return to the beautiful west coast in the near future.

Cheng-Han Lee, MD-PhD, FRCPC
Postdoctoral Research Fellow



Dr. Patenaude graduated from Université Laval in Québec City. After a BSc in Biochemistry he studied Genetic Engineering, which was a first working experience in molecular biology research and a decisive step to begin graduate studies. His MSc, under the supervision of Dr. Pierre Savard in Molecular & Cellular Biology, study the cell cycle mechanisms in the context of the salamander regeneration process. Thereafter, he did PhD studies in Molecular & Cellular Biology to study antioxidant mechanisms of mitochondria and the importance of oxidative stress in neurodegenerative diseases and aging. Dr. Patenaude's PhD background gave him the opportunity to work on studies of new anticancer compounds that target mitochondria and antioxidant resistance mechanisms of cancer cells with Dr. René-C. Gaudreault. In his current postdoctoral studies, under the supervision of Dr. Aly Karsan, he studies the mechanisms of angiogenesis, the process by which new blood vessels are formed in tumors.

Alexandre Patenaude, MSc, PhD
Postdoctoral Research Fellow
BC Cancer Research Centre



Dr. Raqeeb is a Postdoctoral Fellow in the Seow Lab at St Paul's hospital (iCAPTURE). He received his PhD in Physiology and Neurosciences from the University of Pavia, Italy. Soon after he joined the Smooth Muscle Research Group, Libin Cardiovascular Institute, University of Calgary as a Postdoctoral Fellow. He mainly worked on Ca²⁺ signaling in endothelial/vascular smooth muscle cells, using calcium imaging techniques. Here in the Seow Lab, he will be working in the area of airway smooth muscle mechanics and ultrastructure, with the ultimate goal of understanding the difference in the functional behavior between smooth muscles from normal and asthmatic patients. Dr. Raqeeb's first project is elucidating the relationship of muscle shortening and the degree of muscle activation, and the factors determining the amount of shortening in airway smooth muscle and therefore airway narrowing.

Abdul Raqeeb, PhD
Postdoctoral Research Fellow,
St. Paul's Hospital



Dr. Sadar, received her BSc degree in Biochemistry from Simon Fraser University and her PhD in Molecular Biology from the University of Bradford (United Kingdom) in 1995. Postdoctoral Fellowships were done at Astra-Hassle (now AstraZeneca) in Sweden followed by the BC Cancer Agency in Vancouver. Dr. Sadar is the Program Leader for Prostate Cancer Research at the BC Cancer Agency and Senior Scientist in the Genome Sciences Centre at the BC Cancer Research Centre. She is a chartered member of the National Institutes of Health (USA) Drug Discovery and Molecular Pharmacology Study Section (DMP) committee and Treasurer for the Society of Basic Urologic Research (SBUR). Her research interests include the molecular mechanisms of hormonal progression of prostate cancer and development of therapeutic strategies for improved clinical management of advanced disease. Dr. Sadar has been selected for the 2009 Simon Fraser University Outstanding Alumni Award for Academic Achievement and last year received the 2008 Terry Fox Young Investigator Award for her contributions in cancer research.

Marianne D Sadar, PhD
Honorary Associate Professor,
BC Cancer Research Centre



WELCOME NEW FACULTY MEMBERS



Congratulations

Suzanne Vercauteren, MSc, MD
Clinical Instructor, Children's &
Women's Health Centre of BC

Dr. Vercauteren was born and grew up in Waalwijk, The Netherlands. She attended the University of Utrecht, where she received her BSc; and MSc (Honours) in Medical Biology, and her MD degree in 1999. During her MSc and MD degree Dr. Vercauteren spent nine months in Dr. Keith Humphries laboratory at the Terry Fox Laboratories in Vancouver Canada. In 1999, she started training in Hematology as well as a PhD degree, which she finished in 2003. During PhD degree she spent most of her time in the Terry Fox Laboratory in Vancouver, working with Dr. Heather Sutherland and Dr. Peter Lansdorp as well as Dr. Anton Hagenbeek from the University in Utrecht.

Dr. Vercauteren did a Post Doctoral Fellowship in Dr. Connie Eaves' laboratory, and between 2003 and 2008 completed her Hematopathology Residency at the University of British Columbia. She stayed actively involved in research under the supervision of Dr. Aly Karsan and Dr. Connie Eaves on Myelodysplastic syndromes. After her residency she did a year fellowship at Vancouver General Hospital where her time was divided between clinical duties and research under supervision of Aly Karsan.

In September 2009, she started a job as staff Hematopathologist at Children's and Women's hospital in Vancouver and recently received a grant from the Leukemia and Lymphoma Society to continue research. In October 2009 she has received the Governor General's Fellowship Award for Leukemia Research.

Dr. Vercauteren is married, has three sons, three and a half, two years of age and welcomed their third son on November 21st 2009. She enjoys biking, running and playing with her children.

**On November 21, 2009
family Vercauteren
welcomed their
third son.**

WELCOME NEW STAFF



DEPARTMENT OF
PATHOLOGY &
LABORATORY
MEDICINE
WELCOMES NEW
HR MANAGER,
MS. SANDY LIU



I have been with the department since the beginning of November and one thing that I have noticed is that there is never a dull moment in the Department of Pathology and I am enjoying every second of it. Before joining the department, I was working in UBC Central Human Resources as a HR Associate, providing advice to departments on matters relating to staffing, job evaluation, and interpretation of the collective agreements.

Prior to working at UBC, I was working on a 6 month project as a HR advisor for an electronic company in Asia, establishing recruitment and selection procedures, performance management system, and developing interview questions and job descriptions. I have a Human Resource Management Certificate from the British Columbia Institute of Technology and a Bachelor of Arts in Family Studies from the University of British Columbia.

Currently, I am working towards the Certified Human Resources Professional (CHRP) designation. On a personal note, I like to watch movies and walk along the beach with my 10 year old Beagle. I am a world traveler and I enjoy any chance I get to try out different kinds of cuisine. An interesting fact about me is I once climbed Mt. Fuji (in Japan) for 6 hours just to see the sunrise and another 5 hours to get down the mountain. The phenomenal view made it all worth it. Please do not hesitate to drop by my office or contact me any time with your HR inquiries and I look forward to working with you.

SAVE THE DATE
Pathology Day
COMING
UP

May 28, 2010



Ms. Farrah Ronney, Mrs. Penny Woo and Dr. Haydn Pritchard

Penny Woo has rejoined us in December as Program Assistant! During her leave, we have missed her experience, knowledge and support and it will be great to have her back.

Welcome back Penny.

Farrah Rooney has been our second acting Program Assistant during Penny's leave and she has done a great job in supporting both students and supervisors over the past 3 months. She will be staying on full time to help transition Penny back to full time work as well as taking on new assignments in the area of communications and recruitment.

GRADUATE STUDIES IN PATHOLOGY

By: Haydn Pritchard
Program Director
and Graduate Advisor

Over the past few months, we have sought the opinions of students, supervisors, and program administrators to identify opportunities for program development. Working with a group of current and past GS committee members, as well as with student input, we have proposed some changes to the organization of the faculty work load in the program to involve those faculty members who wish to participate.

One of the strong messages that has come from this informal internal review is the need to address the challenges of Graduate Advisor support at the geographic centers of research in Pathology. Consequently, we have identified a group of "on site" associate graduate advisors who will be an accessible resource to students and supervisors at each site who are familiar with local culture and challenges. In addition, the strong desire for student input into the development of the program has triggered the appointment of site specific student peer supporters to help new and ongoing students throughout their program.

We have established a set of specific working groups who will manage the nut and bolts of the program from the faculty and students perspective. The activities include: admissions, awards, student representation, curriculum, and student supervision/progress. A current student will be appointed to each of these groups and the leaders, along with the onsite advisors and the student rep, will constitute the restructured Graduate Studies committee for the Department.

The positions are as follows:

- Student Affairs – Agatha Jassim
- Onsite Advisor – Children’s site – Jacki Chantler
- Onsite Advisor – St. Paul’s site – Chun Seow
- Onsite Advisor – VGH site – Marcel Bally
- Onsite Advisor – UBC – Ed Prydzial
- Admissions – Colin Fyfe
- Awards – John Hill
- Curriculum – Hélène Côté
- Student Progress – Haydn Pritchard

I am looking forward to working with this renewed GS committee and all the associated working groups. We should, however, all recognize that the real success of the program depends the skill and engagement of our Program Assistants - Penny and Farrah. It is they who will hold all this together!

How to Reach Us

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Did you know?

There are currently 76 students in the program.

Site	MSc	PhD	MD/PhD	TOTAL
BCCH	4	14	2	20
SPH	1	19	-	20
VGH	8	17	-	25
UBC	3	8	-	11

We graduated several outstanding students in November 2009. Well done to all of you!

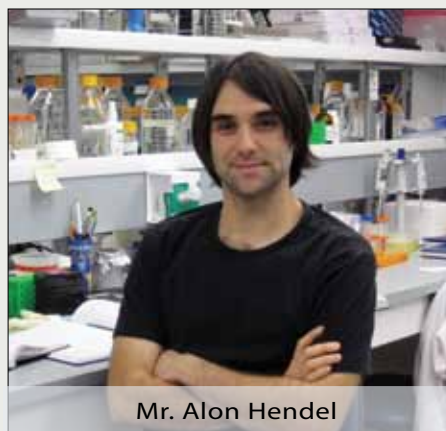
Student	Degree	Thesis Title	Supervisor
Tyler Hickey	PhD	Identification of Cpn60.2 as a surface ligand of Mycobacterium tuberculosis that facilitates bacterial association with macrophages via CD43	Richard Stokes
Will Lockwood	PhD	Genetic alterations and lineage specificity in lung cancer	Wan Lam
Jill Williamson	PhD	Global Investigation into the Population Genetic Structure of Cryptosporidium hominis based on a Whole Genome Multi-locus SNP-typing Scheme; inferences about the existence of biogeographical partitions	Corinne Ong
Henry Stringer	MSc	Mitochondrial DNA Alterations and Statin-Induced Myopathy	Helene Cote
Alice Kuo	MSc	Mapping Epigenetic Features and Cisplatin-induced Alterations in Cancer Genomes	Wan Lam
Troy Sutton	PhD	Prevention of Respiratory Syncytial Virus Infection via Methoxypoly(ethylene glycol)-Modification of the Virus or its Host Cell	Mark Scott
Ming Yang	PhD	Investigation of the Function of Lipo-protein associated Phospholipase A2 in Lipid Metabolism	John Hill
Leah Prentice	PhD	The Kisspeptin and GPR54 Ligand-receptor pair in Autocrine and Endocrine Signaling in Cancer	Sam Aparicio
Tim Buys	PhD	Clonal Evolution and Lung Cancer Pharmacogenomics	Wan Lam
Cleo Lee	PhD	Tumor-Specific Targeting Using Oncolytic Herpes Simplex Virus Type 1 for Prostate Cancer Treatment	William Jia

VANIER SCHOLAR NOMINATIONS

By: Farrah Rooney – Program Assistant

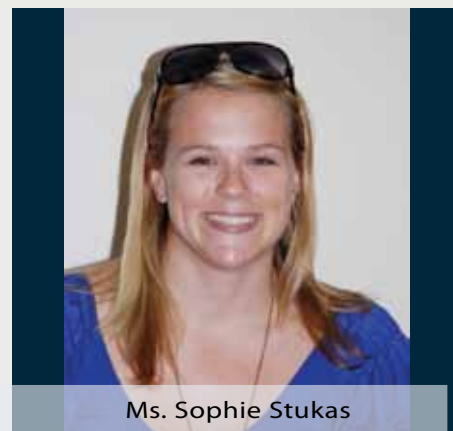
The Vanier Canada Graduate Scholarships program is designed to attract and retain world-class doctoral students by offering them a significant financial award to assist them during their studies at Canadian universities. Canadian and international students are eligible to be nominated for a Vanier Scholarship, which is valued at \$50,000 per year for up to three years. For more information visit: <http://www.vanier.gc.ca/hp-pa-eng.shtml>.

The 2009-2010 Vanier Award nominations competition in the Department of Pathology was very competitive. Out of 7 excellent applicants, the awards committee chose two applications to be nominated based not only on their superior academic achievements but on their leadership skills. Our two selections this year were Sophie Stukas and Alon Hendel. These two students competed for a limited number of nominations from UBC to compete for this national award. The 2009-2010 Vanier Award nominations competition in the Department of Pathology was very competitive. Out of 7 excellent applicants, the awards committee chose two applications to be nominated based not only on their superior academic achievements but on their leadership skills. Our two selections this year were Sophie Stukas and Alon Hendel. These two students competed for a limited number of nominations from UBC to compete for this national award.



Mr. Alon Hendel

Alon is also in his first year of his PhD after being promoted from his MSc in September 2009. Under the supervision of Dr. David Granville in the James Hogg iCAPTURE Centre his research focuses on the role of Proteinase Inhibitor 9 in atherosclerotic plaque stability. Alon also served as a combat medic instructor for Israel Defense Forces and was responsible for the teaching and practical training of advanced trauma life support (ATLS) skills. Due to his exceptional performance as an instructor, he was promoted to the role of Medic Course Head Coordinator. This position allowed him to gain a supervisory perspective and acquire fundamental managerial skills. Alon was able to continue and fulfill his passion for teaching in the Israel Emergency Medical Services (MADA) as a CPR and First-aid instructor, where he trained paramedics and ambulance personnel. He has also started his own CPR and First-aid training company in Canada; Community Care First-aid, a Canadian Red Cross Authorized Provider Company that currently runs courses in community centers across Vancouver.



Ms. Sophie Stukas

Sophie is in her first year of her PhD program under the supervision of Dr. Cheryl Wellington at the Child & Family Research Institute. The focus of her research is investigating the use of recombinant brain high density lipoproteins (rHDL) as a novel therapeutic platform for the treatment of Alzheimer's Disease (AD). In addition to her academic work she was selected for and competed on the BC Provincial Sailing Team (2003-05) and Canadian Junior National Sailing Team (2004-05). She earned her Head Instructor and High Performance Race Coach certifications from the Canadian Yachting Association (2005). Sophie served as the Junior Vice-Commodore (2000-03) and Intermediate Representative (2004-06) on the Royal Victoria Yacht Club Executive Committee, attending monthly meetings, writing a monthly newsletter, and organizing social events and trips, and was the founder and president of the UVic sailing team (2005-06).

Whilst nomination by the Department and by UBC is only first step in the Vanier Award process, we thought it fitting to highlight these two outstanding students.

BRINGING TOGETHER GRADUATE STUDENTS ACROSS DISCIPLINES

By: Agatha Jassem - PhD Candidate and Graduate Student Representative

One of the greatest attributes of the Department of Pathology and Laboratory Medicine is the breadth of research concerning the mechanisms of disease that exists within it.

To witness first hand the immense diversity of research fields represented within the department all you have to do is attend a session of the Graduate Student Seminars (Path 535/635). Student research projects span a wide range of disciplines including cell biology, oncology, immunology, microbiology and neuroscience! Bringing students together at social events, such as the one recently held on September 22nd of this year (pictured), further encourages the development of a collaborative environment across disciplines and also a sense of community within a large university.

This year we've expanded from having just one graduate student representative to four to better represent the diversity of the student body and the sites at which students do their research.



Ms. Agatha Jassem, left



Ms. Rachel Wade, right

The current student representatives for each geographic site are as follows:

- Rachel Wade, UBC main campus
- Alon Hendel, St. Paul's Hospital
- Emily Vucic, VGH
- Agatha Jassem, BCCH

Please don't hesitate to contact any of us with questions or concerns, and we look forward to seeing you at future social events.



Mr. Alon Hendel, third from the left, Ms. Emily Vucic, fourth from the left

RESIDENCY TRAINING PROGRAM

MEDICAL BIOCHEMISTRY

By: Andre Mattman, Medical Biochemist



"The current UBC Medical Biochemistry Residency Training Program Committee sees an exciting future for chemistry testing in the clinical laboratory and, thus, is committed to reviving the specialty in BC"



Dr. Andre Mattman



Dr. Ahmad Al Sarraf



Mrs. Grace Adrias, Post-Graduate Resident
Ms. Carolyn V. Mill, Residency Coordinator

Throughout the last 20 years, the medical biochemistry program at UBC has been relatively inactive due to a combination of factors but mostly due to a lack of recruitment and promotion of the specialty. The handful of recent graduates who have come through are enjoying careers in tertiary care centres in Vancouver or in Montreal. The current UBC medical biochemistry residency training program committee (RTC) sees an exciting future for chemistry testing in the clinical laboratory and, thus, is committed to reviving the specialty in BC.

We are making several changes:

- We are welcoming an increasing number of residents to the program. Nafila Al-Riyami is our first resident to complete the residency training program (completion date Dec 1, 2009) since Dr Dan Holmes graduated in 2005. In addition to Nafila, there are three other current residents with two CaRMS entry positions requested for 2010. There is a strong pool of applicants particularly from international medical graduates with a keen interest in chemistry and math, which, along with clinical medicine, form the cornerstone of the medical biochemistry realm of expertise. Our residents have a diverse range of backgrounds and interests which will allow them to each contribute uniquely to laboratory medicine in BC and elsewhere in the near future.
- Increased clinical focus to training: Medical biochemistry remains a clinically focused subspecialty of pathology. The future of medical biochemistry may be a shift to an even stronger clinical emphasis by becoming a sub-specialty of internal medicine / pediatrics. The national specialty committee has proposed this plan to the Royal College committee on specialties and this proposal has been accepted in principal. The major change would be from two years of clinical medicine in the current program to three years of clinical medicine as a subspecialty of internal medicine or pediatrics. A definitive change will take time to implement so residents entering the training program in the next two years would be unaffected. Certification status is determined based on RTC requirements at the time of acceptance into the residency training program.

EDUCATION



Program Coordinator and
Program Assistant



Resident Ladies

- Introduction of new diagnostic technologies in the clinical laboratory. Mass spectrometry analyses are available at all clinical lab rotations in the UBC medical biochemistry program. Each site has MDs or PhD scientists with expertise in the mass spectrometry analysis of diverse entities including trace metals, steroids, amino acids, acylcarnitines and immunosuppressants. Proteomic profiling is not yet routinely available in the clinical labs but exposure to proteomic analysis via mass spectrometry and multiplex immunoassays is encouraged. There are also opportunities for synergistic approaches to the diagnosis of genetic conditions, to pharmacogenomics and other areas via protein and DNA based technologies. Residents with interest in this are encouraged to take electives involving exposure to these techniques. Each resident is given a full unrestricted and funded year of research to enable development of expertise in a novel technology or field that will be of importance to their future career.
- Inclusion of private laboratories. Private laboratories oversee a large proportion of the high volume clinical chemistry tests in BC. Two years ago, the RTC expanded to include membership from the private sector. In the past few years, residents have been asked to do electives at the two major private laboratories in the lower mainland: BC Bio and Life Labs. At these facilities, residents are readily exposed to principles of management and automation with respect to sample processing, testing and data handling for samples analyzed in the tens of thousands per day.

While the new era unfolds, the emphasis on the medical biochemistry training program is fourfold. *First*, to train residents in the basics of high quality laboratory testing using manual and automated techniques. *Second*, to train residents to guide patient investigations in an efficient manner that both facilitates diagnosis and uses minimal resources. *Third*, to promote flexibility knowing that the world of laboratory medicine is fluid and that opportunities and responsibilities vary between labs and over time. *Fourth*, to encourage strong clinical skills so that medical biochemists are medical experts able to provide competent clinical care for patients with a range of medical disorders ranging from those affecting lipid metabolism, the endocrine system, to inborn errors of metabolism.

The current residents are an outstanding group:

- Ahmad Al Sarraf, PGY-4 – chief resident
- Vincent Fung – PGY-3
- Hans Frykman – PGY-2

Teaching Faculty:

- SPH – Dan Holmes, Andre Mattman, Nadine Urquhart, Jiri Frohlich, Greg Bondy
- VGH – Morris Pudek, Wes Schreiber, Dailin Li
- C&W – Cathy Halstead, Hilary Vallance, Benjamin Jung, Paula Waters, Graham Sinclair, Brett Casey, Tanya Nelson
- Royal Columbian Hospital- Arun Garg, Chiman Chow
- Surrey memorial hospital- Richard Cleve
- BCBio Medical laboratories Ltd - John Heathcote, Jim Darbyshire, Ming Dong-sheng
- Life Labs – Michael Moss, Jan Palaty, Cheryl Tomalty



Dr. Ford and his family

UNDERGRADUATE MEDICAL EDUCATION IN PATHOLOGY AT UBC

By: Jason Ford, MD, FRCPC, Medical Undergraduate Program Director

The number of Canadian medical graduates who choose pathology as a career remains too low. Over the last seventeen years, 1.2% of medical graduates ranked a pathology specialty as their #1 choice in the Canadian residency match. There are some schools—such as UBC, Ottawa, and Alberta—which are consistently above the national average. Of these, UBC is an order of magnitude more “pathology friendly” than the rest,

with an average of 2.1% of our graduates choosing pathology.

What is UBC doing right?

I have recently surveyed residents in clinical (non-pathology) fields to find out why they did not choose pathology. While the majority simply preferred hands-on patient care, a sizable minority said they didn’t have enough exposure to pathology or pathologists in medical

school. It may be that UBC graduates are the most likely to choose pathology because they have the best exposure to pathology. This speaks very well of our Department’s small group teaching for first and second year medical students. These Clinicopathologic Conferences (CPCs) are very highly rated by students, and are almost certainly a major reason why UBC is more successful than other schools in recruiting students into pathology.

The CPCs were authored, and managed for over ten years, by Dr Andrew Churg at UBC Hospital. Without Andy’s incredible energy and his devotion to the medical students, undergraduate pathology education at UBC might well have flickered and died.

I remember wanting to become a pathologist because of my second year Path 425 course at UBC. Those of us who were students at UBC over the



"Avi Ostry, Blake Gilks, Diana Ionescu, and Brian Skinnider, are revising and updating the CPCs this year, ensuring that UBC will continue to be a leader in Canadian pathology education."

80s and 90s owe our gratitude to David Hardwick, and Jim Dimmick, and Mike Allard, and Doug Filipenko, and all of the pathologists who brought that course to life. Today our thanks are owed to Andy Churg, and to the dozens of pathologists who teach in the CPCs as well as in our lectures and labs, for UBC's success in recruiting pathologists.

We have a new team of pathologist educators who are building on Andy's excellent work, to make the CPCs even more important and valuable to our medical students.

Avi Ostry, Blake Gilks, Diana Ionescu, and Brian Skinnider, who are revising and updating the CPCs this year, are ensuring that UBC will continue to be a leader in Canadian pathology education. And to all of the pathologists and residents who teach our medical students, thank you—you're doing the best pathology teaching in Canada.

SUMMER STUDENT PROGRAM

By: Daniel Holmes

Every summer the UBC Department of Pathology and Laboratory Medicine offers bursaries for medical and undergraduate students interested in pathology research. As our disciplines span everything from anatomical pathology to analytical chemistry, students have a wide range of academic opportunities. The program offers 2 months of support (\$1500 per month) to seven students each summer. The positions will be advertised in February for an application deadline in late March.

Prospective supervisors should submit brief research proposals with their application. These should clearly lay out the necessary background information and hypothesis along with a description of the scope of the project. There should be well-defined goals that are achievable within the two-month time frame. Ethics approvals should be completed before the student commences the project.

Typically, students apply together with the supervisor because preference is given to UBC Medical Students followed by UBC undergraduate students. Students from non-UBC schools will be funded only if suitable UBC students are not available.

Ms. So Ra Lee, (centre), Summer Student 2009, worked on programming automated sample preparation for St. Paul's Hospital Department of Pathology and Laboratory Medicine. She worked with Medical Biochemist, Dr. Daniel Holmes, (left) and Medical Laboratory Technologist, Ms. Suzette Wals (right).

Supervisors who would like to find a student with whom to formulate an application may contact the UBC Medical Undergraduate Office who will advertise the position and research description on their behalf. Applications are reviewed by a committee and bursaries are distributed according to the merit of the proposals and the academic record of the student.

Students are required to submit a report of their findings in the form of a scientific report, poster, or draft manuscript as appropriate before August 31, 2010. Supervisors take note: failure of the student to submit a report will result in exclusion of the supervisor and the student from access to funding the following summer.



(from left) Hugh O'Neil (CEO sanofi-aventis Canada), Dan Kennedy (Senior Manager, Western Canada, sanofi-aventis Canada), Torsten Nielsen, David Huntsman, Susan O'Reilly (VP Cancer Care, British Columbia Cancer Agency), Blake Gilks

GPEC 2009

By: Blake Gilks

The Genetic Pathology Evaluation Centre (GPEC) of the Prostate Research Centre at Vancouver General Hospital, British Columbia Cancer Agency, and Department of Pathology and Laboratory Medicine of the University of British Columbia received an unrestricted educational grant for \$250,000 from sanofi-aventis Canada at a dinner on December 8, 2009. This marks the seventh consecutive year that sanofi-aventis has supported GPEC, and with the termination of MSFHR unit grant support, is the sole source of support for the laboratory, located on the fifth floor of the Jack Bell Research Centre.

The Genetic Pathology Evaluation Center has achieved the following significant accomplishments, that reflect our pioneering work in the use of tissue microarrays (TMAs), and our specific emphasis on identifying important molecular subtypes of cancer.

We were the first in the world to recognize that TMAs can be used to improve the performance of immunohistochemistry. This led directly to provincial and then national quality assurance programs that have resulted in improved breast cancer biomarker testing. This approach of using TMAs for quality assurance has been adopted worldwide.

In collaboration with Matt van de Rijn at Stanford, we developed the first software tools for automated analysis of tissue microarray data. We were the first to apply the analytical technique of hierarchical clustering analysis to immunohistochemical staining data, an approach now widely used to analyze these complex data sets.

We showed that ovarian cancer is not a single disease but five distinct diseases. This has been very influential in leading to more customized, subtype-specific treatments for patients with ovarian cancer. Our work on sarcomas has led directly to two clinical trials of new treatment for these tumors, with Dr.

Nielsen co-chair of one of these trials through the National Cancer Institute of Canada.

Again in collaboration with Dr. van de Rijn at Stanford, we discovered the translocation present in pigmented villonodular synovitis and tenosynovial giant cell tumor; this has led to patients with pigmented villonodular synovitis being treated with a drug that targets the gene affected by the translocation.

We have identified and validated two new diagnostic markers for sarcoma subtypes that are now widely used in hospitals around the world.

Starting in 2004 we have had a leading role in defining the molecular subtypes of breast cancer. Our first paper in this area, in *Clinical Cancer Research*, describing the immunophenotype of basal-like subtype of breast cancer has been cited more than 500 times, and is the fourth most cited paper ever in this *American Society for Cancer Research* journal. We have shown that the basal-like subtype of breast cancer is a more aggressive subtype, more common in African-American women, and shows a favorable response to chemotherapy.

We are now at the cutting edge in re-analysis of clinical trials material to determine the response of different breast cancer subtypes, including basal-like, to different treatments. Subtype specific treatment of breast cancer, with treatments that are specifically chosen for effectiveness against the molecular abnormalities in each subtype, are saving lives.

We recently discovered a mutation that is present in almost every case of an uncommon and previously completely inscrutable form of ovarian cancer, granulosa cell tumor.

Since being founded in 2001 by Drs. Nielsen, Huntsman and Gilks, more than 200 publications have resulted from work done in GPEC.

ARTICLE ABSTRACT

Nature Medicine

Published online: 8 November 2009 |

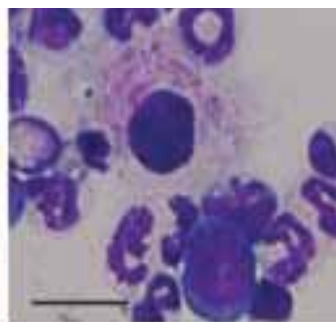
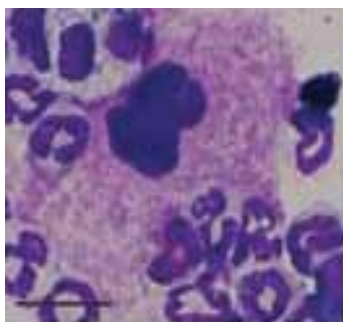
doi:10.1038/nm.2054



Some of the members of Dr. Karsan's laboratory studying MDS. Left to right: Dr. Suzanne Vercauteren (former Hematopathology Resident); Dr. Dan Starczynowski, Post-doctoral Fellow; Ms. Sandy Sung, Technician

A study published online in November 2009 in *Nature Medicine*, led by Dr. Aly Karsan, Professor and Medical Director of the Cancer Genetics Laboratory, BCCA, and Head of Clinical Genomic Diagnostics at the Genome Sciences Centre, and Dr. Dan Starczynowski, a post-doctoral fellow in Dr. Karsan's laboratory, reveals the role of two microRNAs (miRs) in the phenotype of a subtype of myelodysplastic syndromes (MDS). MDS comprise a group of malignant hematopoietic stem cell disorders characterized by dysplastic and ineffective hematopoiesis associated with peripheral blood cytopenias.

Patients with MDS progress either to bone marrow failure or acute myeloid leukemia. Interstitial deletion of the long arm of chromosome 5 is the commonest structural genomic abnormality in MDS. An isolated deletion of this chromosome arm associated with macrocytic anemia, normal or increased platelets and characteristic megakaryocytic dysplasia has been referred to as 5q- syndrome. MicroRNAs are small RNAs, 19 to 25 nucleotides long, that do not code for a protein, but rather function



This finding is seen in patients with 5q- syndrome.

Characteristic hypolobated dysplastic megakaryocyte seen with loss of miR-145 and miR-146a (right panel) compared to a normal megakaryocyte (left panel).

to repress translation of multiple target mRNAs. Dr. Karsan's group reports that loss of miR-145 and miR-146a, which are encoded on chromosome 5, results in derepression of innate immune signaling pathways. This inappropriate activation of innate immune signaling in hematopoietic stem cells explains the megakaryocytic abnormalities in 5q- syndrome, and also the propensity to progress either to bone marrow failure or acute myeloid leukemia. Currently an immunomodulatory drug is used to treat

MDS patients with deletions of the long arm of chromosome 5, but it is unclear how the drug functions. Ongoing studies in Dr. Karsan's laboratory are addressing the mechanism of action of this drug with respect to microRNA expression and innate immune signaling.

This work was conducted in collaboration with various groups at the Genome Sciences Centre, the Terry Fox Laboratory and investigators at the Sunnybrook Hospital in Toronto.

RECENT RESEARCH BREAKTHROUGH FROM SAM APARICIO'S LAB



The research highlight of the year for Sam Aparicio's lab was their publication in *Nature* of the first breast cancer genome sequence. Partnering with the BC Cancer Agency's Genome Sciences Centre, Dr. Aparicio's team used the latest next-generation DNA sequencing technology to study the evolution of a single patient's lobular breast cancer tumour over a nine-year interval. They found 32 mutations in the metastatic cancer, and then determined how many were also present in the original tumour. The result was surprising - only five of the 32 mutations could have been present in all of the cells of the primary tumour, and thus potential "drivers" of tumorigenesis. These five mutations had not previously been implicated in breast cancer.

An analysis of the frequency of the various gene mutations in different cells revealed that the primary breast tumour contained considerable genetic heterogeneity, even at the earliest stages of the disease. This phenomenon may explain certain properties of breast cancer cells, such as the development of drug resistance and the potential for metastasis, which are thought

to reside in a small subpopulation of cells within the original tumour. Dr. Aparicio's study therefore highlights the importance of developing breast cancer therapies that target all mutations in a given tumour at an early stage of the disease.

"I never thought I would see this in my lifetime," said Dr. Aparicio. "This is a watershed event in our ability to understand the causes of breast cancer and to develop personalized medicines for our patients". Dr. Marco Marra, director of the Genome Sciences Centre, added, "this study demonstrates the remarkable capacity of next-generation DNA sequencing technology. The project that decoded the first human genome in 2001 took years and an enormous amount of funding. We were able to sequence the breast cancer genome in weeks and at a fraction of the cost."

The study was funded by the BC Cancer Foundation, the fundraising arm of the BC Cancer Agency; the Canadian Breast Cancer Foundation, BC/Yukon Region; the Canadian Institutes for Health Research; Genome Canada and Genome BC; the Canadian Foundation for Innovation; and the Michael Smith Foundation for Health Research.



"I never thought I would see this in my lifetime.

This is a watershed event in our ability to understand the causes of breast cancer and to develop personalized medicines for our patients".

I remember before the move, people saying, “wow, new job, new lab, new schools, new home, new city, different country—that’s a big change”. Once we were here, people kept saying the same. We thought, sure, but we’ll be just fine. Of course a billion things always take a bit longer than you originally anticipate. *Okay, a lot longer.*

STARTING A NEW LABORATORY IN PATHOLOGY

By: Jacqueline Quandt, PhD, Assistant Professor



Starting my first faculty position at the University of British Columbia meant many things: returning to family in beautiful British Columbia, the instructors and professors that had trained me for both undergraduate and graduate education, and a top-notch academic research institution. After five years of work as a fellow and the same as a staff scientist at the NIH, it was now or never if I was ever planning to consider an independent research career. Real world.

Translation: Grant writing, grant review, laboratory set up, equipment, lab compliance, recruitment, animal care protocols, safety training, committee membership, teaching, training of students and fellows, stimulating collaborations, more grant writing and papers, papers, papers. Rain.

But even though at times it really was like starting from scratch, it’s been great. The support of everyone in the department made everything as smooth as possible, whether it was deciphering the hierarchy of UBC vs.



Dr. Arun Garg has been awarded the BCIT's most prestigious award, an Honorary Doctor of Technology (D. Tech. Hon)) and the UBC Wallace Wilson Alumni Award in 2009. This award recognizes a graduate of the UBC Faculty of Medicine who has demonstrated high ethical standards and outstanding leadership to the profession.



Dr. Arun Garg

Coastal Health building and maintenance authorities, finding a place to crash during the time it was all getting done, or getting out all the grants on time and after a thorough review.

Years back, I remembered the challenge within the Department of Pathology was that our "community" was spread out at different sites, with a mix of clinical and basic scientists, from all over the map (literally). Helping with the coordination of the graduate studies seminar course has helped to bring the community to me, in a sense, with immersion in departmental research interests through our trainees.

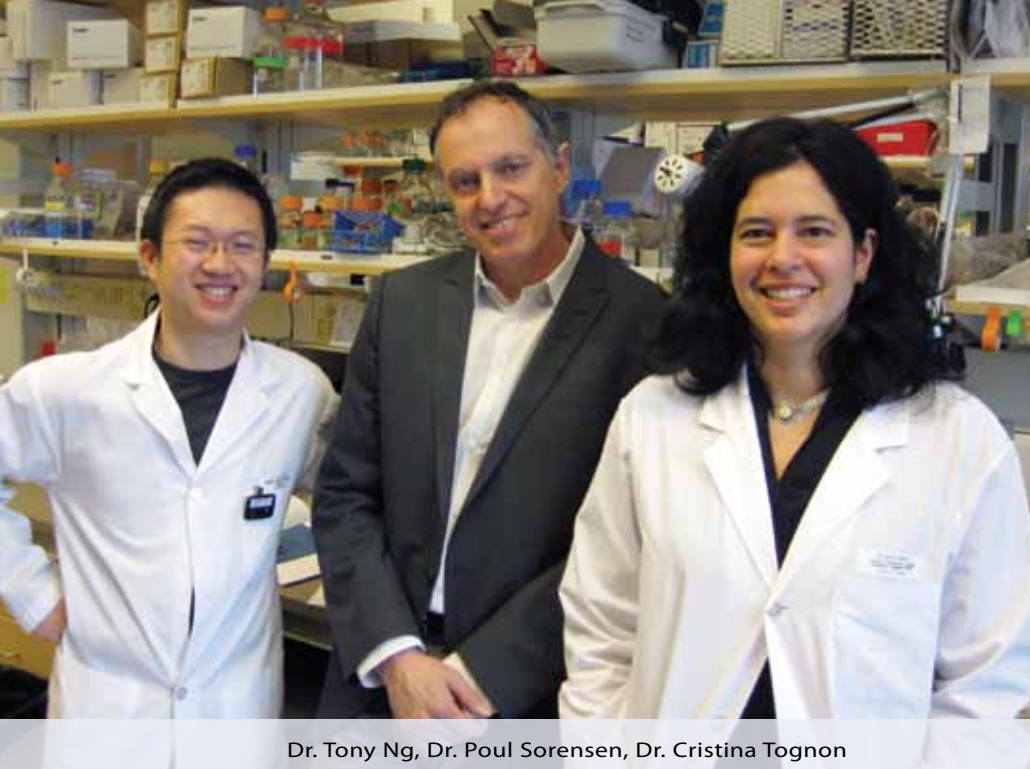
Many familiar faces and also new -- within the Department, MS Research Group and the Brain Research Center -- are helping forge this path. It really does feel like home. The lab space is great, and the first fellows and students have started trickling in. I am of course chomping at the bit--my favorite days are at the bench. Finally up and running--good thing. The next grant deadline is only four months away.

BEFORE.



AFTER.





Dr. Tony Ng, Dr. Poul Sorensen, Dr. Cristina Tognon

NEW STUDY IDENTIFIES A PROTEIN THAT MAKES BREAST CANCER CELLS MORE INVASIVE

Understanding of cell behaviour offers new treatment targets

By: Poul Sorensen

Almost all breast cancer deaths are the result of metastasis of the original tumour to other sites around the body. Metastasis can occur five to ten years after treatment of the primary breast tumour, and is thought to be caused by a small number of drug-resistant cells that persist after treatment and resume growth after being dormant for extended periods.

A recent paper from Dr. Poul Sorensen's laboratory in the UBC Department of Pathology and implicates the RNA binding protein, Y-box binding protein-1 (YB-1), in this process. The study, published in a recent 2009 issue of the journal, *Cancer Cell*, found that over-expression of YB-1, which is present in a subset of breast cancers, actually slows or stops the growth of cancer cells at the primary site. However, it simultaneously enables these cells to become more invasive and to migrate to secondary sites, thereby potentially causing a recurrence of breast cancer when the cells re-activate.

"What is significant about this discovery is that it suggests that conventional therapies may not work in eradicating breast cancer cells with high quantities of YB-1," says Dr. Sorensen. "Conventional therapies are targeted at cancer cells that rapidly grow and divide, but these cells behave differently, since the YB-1 protein actually prevents cells from growing." Team member Dr. Cristina Tognon adds, "we need to understand how cancer cells over-expressing YB-1 are different from other cells so that we can find ways to eradicate them before they become reactivated, causing metastatic disease."

The next step of the research will be to study the mechanisms of reactivation after YB-1 expressing cells have migrated to secondary sites. The team also plans to investigate druggable proteins and pathways that may allow specific targeting of YB-1 over-expressing cells.

The study was funded by the Canadian Institute of Health Research (CIHR) and the BC Cancer Foundation. The work was also supported by a Rethink Breast Cancer Career Development Award, and fellowships from CIHR, Michael Smith Foundation for Health Research and the Royal College of Physicians Clinician Investigator Program to two of the investigators. Support for this study was also provided through the BC Children's Hospital Foundation.

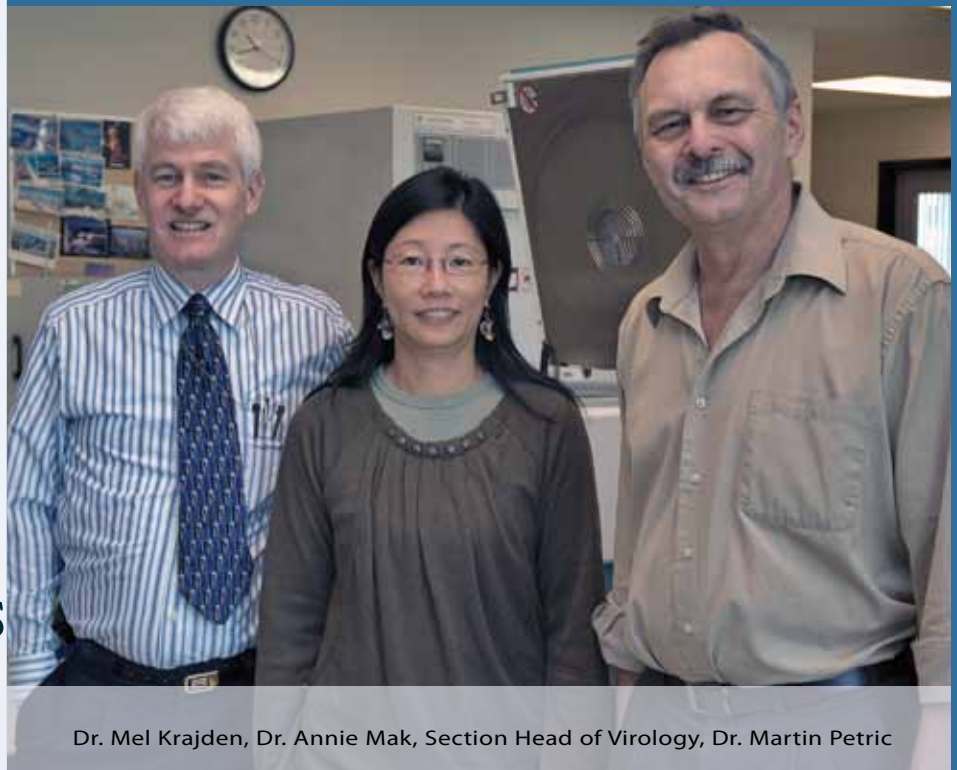
Translational Activation of Snail1 and Other Developmentally Regulated Transcription Factors by YB-1 Promotes an Epithelial-Mesenchymal Transition.

Valentina Evdokimova, Cristina Tognon, Tony Ng, Peter Ruzanov, Natalya Melnyk,

Dieter Fink, Alexey Sorokin, Lev P. Ovchinnikov, Elai Davicioni, Timothy

PANDEMIC RESPONSE ENABLED BY PUBLIC HEALTH MICROBIOLOGISTS

By: Judith Isaac-Renton



Dr. Mel Krajden, Dr. Annie Mak, Section Head of Virology, Dr. Martin Petric

During a dark and stormy April night, members of the Department at the British Columbia Public Health Microbiology & Reference Laboratory (BCPHL), PHSA Laboratories, worked long hours with their teams to develop new molecular microbiology tools to detect a new Influenza A virus. Many fatalities from Flu were being reported in Mexico. Then the same Influenza A subtype was reported by CDC Atlanta from a child in California. A novel, pandemic Influenza A virus (pH1N1) had arrived.

Over the next months, the first wave of the pandemic came and went; there was time to prepare before the second wave arrived in September (Figure 1). All BCPHL Faculty members (Drs Linda Hoang, Judy Isaac-Renton (Director), Mel Krajden, Muhammad Morshed, Martin Petric, and Patrick Tang) pulled together as the public health molecular labs developed and optimized a new Reverse Transcription Polymerase Chain Reaction (RT-PCR), along with DNA Sequencing and SNP anti-viral resistance analysis, assays required to meet the pandemic demand. Once

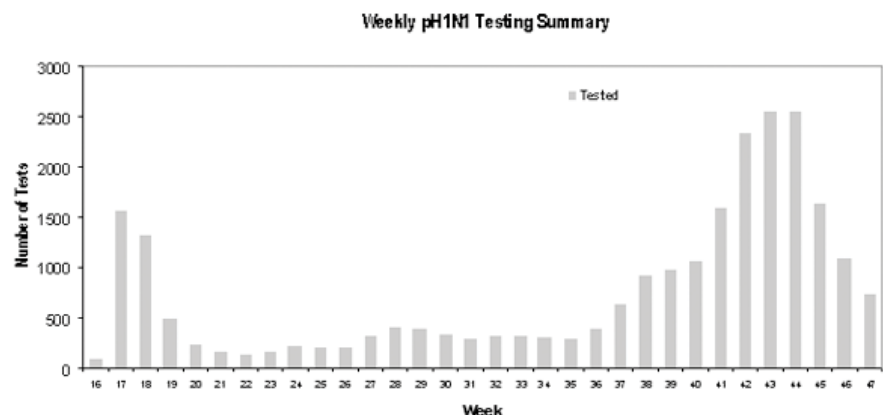
implemented within our College of American Pathologists (CAP) accredited environment, new ideas based on hot-off-the-press science, were put forward by Dr. Patrick Tang, Head of our Molecular Services.

This additional work further improved our turn-around-times and included a duplex molecular assay and other new methods that were rapidly adopted by many labs across BC and Canada. Molecular microbiology provides

better, more rapid and more accurate diagnostic and outbreak responses, in this case to a global epidemic of to an emerging pathogen.

The British Columbia Public Health Laboratory is only to respond so effectively because of its strong scientific leaders who enable these Core Functions of research and training. (http://www.cphln.ca/CPHLN/src/documents/2004-09-14_CPHLN_Core_Functions.pdf).

Figure 1. Pandemic Influenza Testing at the BC Public Health Microbiology & Reference Laboratory, PHSA Laboratories





CANADIAN EXTERNAL QUALITY ASSESSMENT LABORATORY

By: David Seccombe MD, PhD, FRCPC
Managing Director
Canadian External Quality Assessment
Laboratory (CEQAL)

The Canadian External Quality Assessment Laboratory (CEQAL) began in 1988 as the Canadian Cholesterol Reference Foundation with a mission to serve as an accuracy base for the standardization of lipid testing in clinical laboratories across Canada. The Foundation emerged from research efforts within the Department of Pathology and Laboratory Medicine at the University of British Columbia and at inception was fully endorsed by the Canadian Association of Pathologists, the Canadian Society of Clinical Chemists, the Canadian Society of Laboratory Technologists, the Inter-society Council of Laboratory Medicine and the federal Ministry of National Health and Welfare (as it was then called).

Today CEQAL serves as an accuracy resource in support of proficiency testing and laboratory standardization initiatives worldwide. It is a member of the Cholesterol Reference Method Laboratory Network (CRMLN), an international network of 8 Reference Method Laboratories which operates under the aegis of the Centers for Disease Control and Prevention (CDC) and the National Heart, Lung and Blood Institutes in the United States.

CEQAL's first proficiency testing (PT) program was offered in 1990 at the start of the "information age". A fax-OCR system was used for processing performance data. Today an online informatics system that is supported by 30 people is providing 165 different PT programs in four different languages to clinical laboratories in over a 100 countries worldwide. The system also supports the International EQA Collaboration – a co-operative project in which members cost-effectively share technology, information, scientific expertise, academic and educational resources while at the same time maintaining the uniqueness of their PT programs with branding at the local level. Collaboration participants include the following:

- Canadian External Quality Assessment Laboratory (Vancouver, Canada)
- HealthMetrx (Vancouver, Canada)
- AccuTest Proficiency Testing Services (Boston, United States)
- Asociación Mexicana de Bioquímica Clínica (Mexico City, Mexico)
- National Serology Reference Laboratory, Australia (Melbourne, Australia)
- National Laboratory for HIV Reference Services (Ottawa, Canada)
- Ministry of Health, Guyana (Georgetown, Guyana)
- Human Quality Assessment System (Nairobi, Kenya)
- Valutazione Esterna di Qualità (Bologna, Italy)
- Fujian Provincial Center for Clinical Laboratory (pilot)(Fuzhou, Fujian, China)
- STI AIDS Cooperative Central Laboratory (Manila, Philippines)
- Projet Retro-CI, Ministère de la Santé Public du Côte d'Ivoire (Abidjan)
- Thistle QA (Johannesburg, South Africa)
- Ministry of Health, Trinidad & Tobago (pilot)
- Ministry of Health, St Lucia (pilot)
- Ministry of Health, Suriname (pilot)
- Ministry of Health, Jamaica (pilot)
- Ministry of Health, Antigua & Barbuda (pilot)
- Ministry of Health, Barbados (pilot)

The functionality of this informatics system is continually being expanded in response to the feedback from collaboration members.



THE SEABIRD ISLAND INDIAN BAND DIABETES OUTREACH PROGRAM LABORATORY

By: David W. Seccombe MD, PhD, FRCPC

The Seabird Island Indian Band is located in the upper Fraser Valley, three kilometres northeast of the town of Agassiz, BC. The Band provides a wide range of health services and social programs to the First Nations communities it serves. First Nations people have a rate of diabetes that is 3-5 times higher than the Canadian average. In January, Seabird will begin providing a diabetic screening program to its First Nations communities in an effort to reduce the diabetes service gap to this population. Operated by diabetes nurse practitioners, this outreach program will provide education, medical advice and “point of care” finger stick blood testing for the measurement of total cholesterol, HDL cholesterol, triglycerides, LDL cholesterol (calculated), fasting blood glucose and hemoglobin A1c (HbA1c). In addition, the albumin:creatinine ratio in urine will be determined and retinal photographs taken.

The Canadian External Quality Assessment Laboratory (CEQAL) has developed a comprehensive quality control (QC) program to support the POC testing in the Seabird diabetes program. CEQAL emerged from research efforts within the Department of Pathology and Laboratory Medicine at the University of British Columbia in 1988. It is a member of Cholesterol Reference Method Laboratory Network (CRMLN) that operates under the aegis of the NHLBI/CDC in the United States and serves as an accuracy base for lipid testing in North America. The accuracy base for the Seabird QC program is the credentialed reference methods (RM) at the DCCT Reference laboratory at the University of Missouri (HbA1c) and within the CRMLN (total cholesterol, HDL, triglycerides). Prior to field release, the performance of each analyzer is assessed according to NCCLS guideline EP15-A (User Demonstration of Performance for Precision and Accuracy). In the field, the analyzers are monitored by quality control samples (two levels) that have RM target values and assigned limits of acceptable performance. The Seabird training and quality control program is based upon CEQAL's experiences in providing a similar level of support to the mobile diabetes screening programs that are operating on First Nation reserves in Alberta, Manitoba and in other regions of British Columbia. With the appropriate training, quality control and ongoing monitoring, the test results that are produced in these mobile programs have been shown to meet the total error performance goals for clinical laboratories as recommended in treatment guidelines for the testing of lipids and HbA1c.

“Perhaps we may never know where we are in the analytical universe in an absolute sense, but certainly we ought to know where we are in relation to each other.”

— William Horwitz

MEET THE PEOPLE OF PATHOLOGY

Gregory Naus, Clinical Professor, BC Cancer Agency

► ... Little known facts:

- Reads non-medical nonfiction in the bathtub from 4:30 to 6:30 every morning.
- Used the monetary portion of his Chancellors Distinguished Educator Award to take acting lessons.
- Participates (poorly) in many sports, but has no interest in watching sports.
- Is the father of three remarkable sons: a 28 year old historian (James), a 25 year old musician (Jesse) and an adorable 2 year old (Andrew).
- Favorite teaching evaluation from a medical student is "Dr. Naus is a pathology God".
- An agnostic who visits and stays in monasteries around the world.
- Rents different musical instruments for a few months to see how they feel.
- Is directionally challenged
- Attempts to own and have as little as possible... except art.





Brief Life History

Born December 1951 and grew up in a small city in Wisconsin on Lake Michigan. An ideal place to be a child....despite the weather.

Youngest of three children with one brother Peter (Gastroenterologist in Texas) and one sister Mary (Professor of Psychology in Texas).

Mother Leone was a journalist, librarian and high school teacher and father Don wrote advertising for the local newspaper.

Attended parochial grade school, public high school and then the University of Wisconsin in Madison.

Moved to Boston for two years to work as a research associate in artificial intelligence at MIT and in the Department of Neurology at Massachusetts General Hospital.

Moved to New York City and began medical school at Cornell, followed by a Residency in Anatomic Pathology at New York Hospital and a Fellowship in Gynecologic Pathology with Ralph Richart at Columbia Presbyterian Hospital. Then joined the Pathology faculty of Cornell-New York Hospital Medical Center as an Assistant Professor for two years.

Moved to the University of Pittsburgh to become the Director of Anatomic Pathology at Magee Womens Hospital. Stayed for 18 years, also serving as the Director of Pathology Education, Pathology Residency and Fellowship Program Director and Director of professional billing and investments.

Promoted to Professor of Pathology and elected to the Academy of Master Educators in recognition of being the recipient of numerous awards in medical education including the Chancellors Distinguished Educator Award and the Sheldon Adler Teaching Technology Innovation Award for the design and implementation of the nationally recognized computer mentoring program: SocraTease.

Came to Vancouver in 2006 as a Senior Consultant Pathologist at the BC Cancer Agency and Clinical Professor of Pathology at UBC.

Currently lives in Yaletown with wife Diana Ionescu and son Andrew.

Views the above as just the first chapter of a very long story.

... Just for fun:

How would you describe yourself in three words?

A: Often follows directions poorly.

What one thing that has happened in your life has made the biggest impact on who you are today?

A: Learning to adore reading.

When did you realize you were no longer a child?

A: Have yet to realize this.

What's your best excuse for coming home late?

A: Not needing an excuse

What song would you want played during your entrance at your 100th birthday party?

A: You're The Top

Do you agree that all students must have some source of entertainment along with concentration and hard labor towards their study? Can you suggest some tips for entertainment?

A: Since great lecturers combine information, motivation and entertainment, seek out great speakers.

What is the most interesting trip you have ever taken? Why?

A: My first trip to New York City, where I was introduced to the vastness of the possibilities the world has to offer.

If you could trade places with one other person for a week, famous or not famous, living or dead, real or fictional, with whom would it be?

A: Bertrand Russell....to finally really understand mathematics and philosophy, if only for a week.

If someone wrote a biography about you, what do you think the title should be?

A: Curious To A Fault

Is Elvis really dead?

A: Hard to say....we've lost touch.

THE ART AND SCIENCE OF THE WAN LAM LAB

By: The Lam Labbers

Wan was asked to write an article on his art work in this issue of the Newsletter. He forgot, so we would like to take this opportunity to showcase the artistic talents in our lab as interpreted by members of the lab.

The primary research interest of our lab is to understand the molecular events leading to cancer progression, primarily in lung cancer. However, as it turns out the dedicated staff and students have many seemingly unrelated talents that go beyond scientific experiments.

For example, the first graduate student in the lab, Adrian Ishkanian, was an accomplished pianist with a degree in Music. Caitlin Clugston recently starred in the theater version of "Arsenic and Old Lace", and Alice Kuo is a flutist. Ian Wilson and Timon Buys formed a rock band,

not to mention Kelsie Thu who was kicked out of the band for creative differences. We are all familiar with Dr. Walker's delightful, sometimes cell biology inspired sculptures.

Wan Lam's beautiful scenic watercolors are only overshadowed by his talent for lobster hypnosis and lobster yoga – the attached portrait is loosely titled the "Thirsty Crustacean".

The Lam Labbers also have their version of structural art. We will illustrate this point by showing the following examples: a Toblerone sculpture entitled "Deconstruction of a giant chocolate bar -- the persistence of time" or "The breakdown of will power" for short; also the "Attack of the giant sandwich", nicknamed "The lack of will power, again!". Other artwork such as the oral cancer cake and the booze luge ice sculpture also fit under the food and beverage theme.





STAINED GLASS

By: Hélène Côté

I've always enjoyed arts & crafts; drawing, painting, macramé, pottery and batik were a big part of my life growing up. As a teenager, I made pocket money selling my crafts rather than babysitting. I continued watercolour over the years but ten years ago, I discovered stained glass through a Vancouver School Board night class and found my passion. It started at night on the kitchen table but grew to dictate major renovations to our home, creating a small workshop where I could safely work with glass, away from our daughters. Stained glass window making mixes graphic design, drawing and "therapeutic" manual work (glass scoring, cutting, and grinding), as well as lead came soldering and cementing. It has become a necessary creative outlet that enriches my life. Having run out of windows in our house, the latest pieces have made their way to our families in Quebec City and Boston.



Dr. James Hogg Named to Canadian Medical Hall of Fame

Dr. James Hogg, a Professor Emeritus in the Department of Pathology and Laboratory Medicine, UBC, was recently selected as an inductee to the Canadian Medical Hall of Fame.

Dr. James Hogg's brilliant career and uniquely-blended background in pathology, pulmonary physiology and molecular biology has leveraged over 40 years of seminal contributions to the world's understanding of lung disease. Recruited to UBC and St. Paul's Hospital in 1977 from McGill University, Dr. Hogg went on to build a world-renowned centre for pulmonary and cardiovascular research, with 120 trainees and 30 principal investigators a year. The laboratory was named the James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research in 2003.

An outstanding researcher, teacher, lecturer and colleague, Dr. Hogg has arguably had a greater influence on the medical community's knowledge of Chronic Obstructive Pulmonary Disease (COPD) and Asthma than any other individual worldwide. His impact is perhaps best attested to by his highly sought-after lectures around the world and by his training of distinguished pulmonary scientists. Dr. Hogg joins 76 other Hall of Fame laureates who have previously been inducted for pushing the boundaries of knowledge to improve human health. This year's inductees were selected by an independent committee of prominent leaders from Canada's medical community.

To read Dr. Hogg's bio visit: www.cdnmedhall.org/induction/pdf/Hogg.pdf



Dr. Marianne Sadar Simon Fraser University Outstanding Alumni Award for Academic Achievement 2009

Dr. Marianne Sadar was only 10 years old when she lost her older sister to leukemia. Since then she has dedicated her life to achieving her childhood dream: finding a cure for cancer. As the Program Leader for Prostate Cancer Research at the BC Cancer Agency, she has made groundbreaking discoveries that are giving hope to thousands of men who are diagnosed with the disease every year. Dr. Sadar's work began with the aim to increase the efficacy of treatment for patients whose cancer had progressed to the most aggressive state. Normally advanced prostate cancer cells don't respond to any kind of treatment. In 2007 after eight years of work, her laboratory team found a way to kill cancer cells and shrink tumors by using an androgen receptor decoy molecule that interrupts a key step in cancer growth. This major breakthrough could result in improved treatment for prostate cancer within the next five years. Her research team is now focusing its energy on finding a drug that will do the job of the decoy molecule, with potential applications to earlier stage prostate cancer and other endocrine cancers such as breast and ovarian cancer. Dr. Sadar has made seminal contributions towards understanding prostate cancer progression and has been the first in the world to develop a novel therapeutic strategy to combat currently incurable advanced prostate cancer. In recognition of her outstanding work, she was presented with the Terry Fox Young Investigator Award by the National Cancer Institute of Canada in 2008.

Australian Professor Fiona Stanley AC, Director, Telethon Institute for Child Health Research delivered iCAPTURE Centre 2009 Alan Bernstein Distinguished Lectureship



Professor Fiona Stanley AC, Director, Telethon Institute for Child Health Research; Chair, Australian Research Alliance for Children and Youth, and Professor, School of Paediatrics and Child Health, The University of Western Australia presented the 8th Annual Alan Bernstein Distinguished Lecture Series on November 23, 2009 at St. Paul's Hospital. Trained in maternal and child health epidemiology and public health, Professor Stanley has spent her career researching the causes of major childhood illnesses such as birth defects.

Professor Stanley had the crowd enthralled with her presentation entitled- "Does Science have a Soul? Research for Children in a Complex World" and was an immediate inspiration to all levels of faculty, students and staff at the Centre. The Lectureship, which is sponsored by the UBC-affiliated James Hogg Research Laboratories and the Providence Heart + Lung Institute (HLI), provides the opportunity for the BC scientific community to learn from recognized international research leaders.



Dr. Arun Garg and
Dr. Arun Chockalingam
Co-Chairs,
Canada-India CVH2010



Cardiovascular Health 2010
Social, Clinical and Economic Impact:
Opportunities and Challenges
for Collaboration Between Canada and India

JUNE 21-23, 2010 - SURREY, BC CANADA

Key decision makers from both Canada and India will attend to address the current state of knowledge and research in Cardiovascular Health.

CANADA-INDIA WORKING TOGETHER FOR THE FUTURE HEALTH

HOLIDAY FESTIVITIES 2009



- Halloween 2009 :
Jacqueline Quandt won first prize for her Halloween costume followed up by Dr. Hélène Côté who was placed second.





- Some 110 faculty and staff members of the department shared good cheer at this year's Seasonal Party which was held at the Vancouver Lawn and Tennis Club for the first time. The setting with a fireplace, cozy seating, and wonderful music provided by Willie Chan Trio created a warm, very seasonal ambience that was complemented by a varied and excellent selection of food and drink. The extent of conversation, interaction, and laughter indicates attendees were captured by the spirit of the season. Susana Martin, who also served as an enthusiastic greeter at the door, and Maureen Barfoot were responsible for organizing this year's successful event and deserve our great thanks and appreciation.





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