Pathology News

Fall/Winter 2012

BMLSc Program: 30 YEARS OF WORLD-CLASS GRADUATES

a place of mind
THE UNIVERSITY OF BRITISH COLUMBIA
pathology laboratory medicine



















CONTENTS

PATHOLOGY MAGAZINE

PATHOLOGY DAY

AT THE PAETZOLD EDUCATION CENTRE, VGH

The Pathology Day is an annual event held in late May featuring oral and poster presentations from graduate students, residents, and other trainees. At an evening reception Cash prizes ($500) are awarded for the top three graduate student oral presentations, top three resident oral presentations, and the top three poster presentations.

MAY 25, 2012

don't forget to visit

WWW.PATHOLOGY.UBC.CA

AWARDS, HONORS, ACHIEVEMENTS, PROMOTIONS

CONGRATULATIONS TO ALL AWARD RECIPIENTS!

ROBERT KRIDEL, PHD

Supervisor: Randy D. Gascoyne

Robert Kridel won a travel award ($500.00 USD) for the American Society of Hematology meeting in San Diego.

DAVID SCOTT, FELLOW

Supervisor: Randy D. Gascoyne

Won an award for $3,000.00 from the Canadian Hematology Society for best abstract.

"Much like New Year's Resolutions, there are a number of educational initiatives springing up and any and all of them would welcome your participation and/or input."

FROM THE PATHOLOGY LEARNING CEN

DR. MARIA I.C. GYONGYOSSY-ISSA

PEER EVALUATION OF TEACHING COMMITTEE

We have re-started (resurrected?) the Peer Evaluation of Teaching Committee. The committee has two major objectives:

- develop the framework, policies and procedures for how peer evaluation of teaching should be managed;
- find, train and support a team of experts who will do the peer evaluations.

The committee has some "founding members" but more of **you are needed**!

PROGRAM LEADERS

The Educational Program Leaders have met and started their "cross-discipline" communication so that resources - both intellectual and practical - can be shared. Lots still to be done there – but it has been a great start.

HAVE A READ

Dr. Niamh Kelly has been a major contributor to the Department's, indeed the University's, "scholarship of teaching and learning" (SoTL) activities. Her article entitled "A Difficult Journey: transitioning from STEM to SoTL" was published in January's edition of the International Journal for the Scholarship of Teaching and Learning (*http://academics.georgiasouthern.edu/ijsotl/v6n1.html*) having garnered a lot of attention at this years ISSoTL conference.

PATHOLOGY WEBSITE

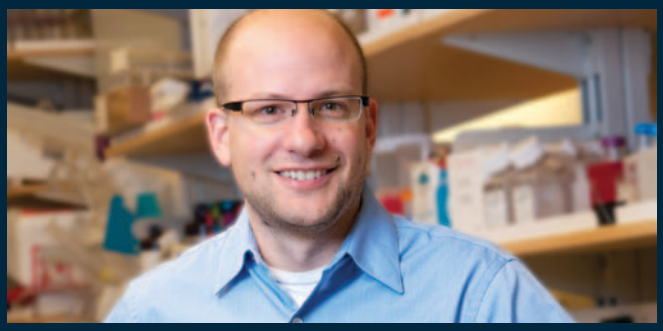
Debbie Bertanjoli has been working on our "new and improved" Pathology website which will be more functional, flexible and will have some new bells-and-whistles. Be prepared to be awed!

SOCIAL MEDIA SURVEY

A survey of your IT and social media use and expertise – was sent your way. The survey has received UBC and Coastal Health ethics approval and has been officially blessed and has appeared in your email. If you have already filled it out: THANK YOU!!! If you haven't, PLEASE FILL IT OUT. All completed surveys will be entered into a draw for a Kobo. Considering the normal rates on survey returns – your chances are excellent!

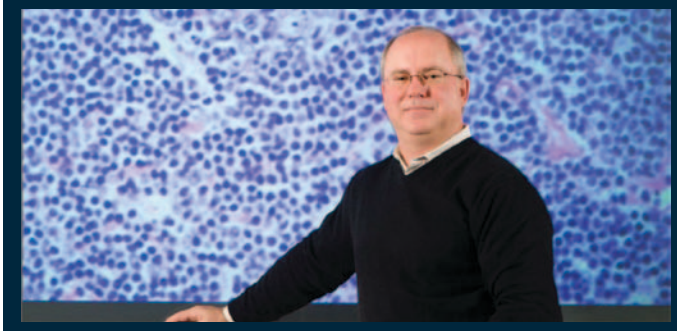
A NEW SEMINAR SERIES

Saving the best for last: with kudos to Dr. Pat Doyle and his committee – there is a new seminar series to address the CanMeds roles of physicians. The presentations will be "cross-disciplinary" to suit the most esoteric of tastes: the subjects will be of interest to everyone from graduate students and residents to clinicians and scientists. The seminars provide **CME CREDITS** ...as well as **LUNCH**! The second presentation will be on the 2nd of March, 12:00 – 1:30 PM and will be on bio-banks and the surrounding issues of tissues access and storage: more complicated than appears at first blush: *Biobanking and Pathology: The 51% opportunity to create a 4P (Public-Patient-Pathology Partnership) solution*. Location - Eye Care Centre Lecture Theatre – 2550 Willow Street.



CHRISTIAN STEIDL, ASSISTANT PROFESSOR

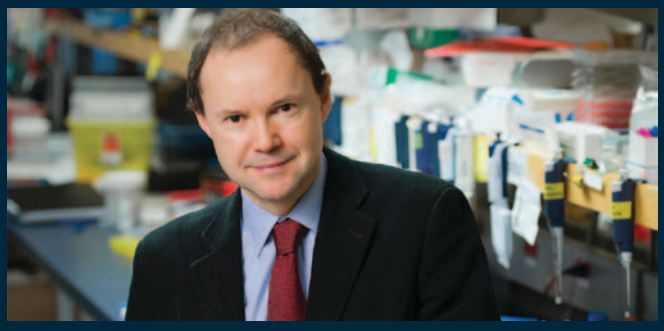
Won a junior faculty award ($3,000.00) from the Canadian Hematology Society.



RANDY D. GASCOYNE, CLINICAL PROFESSOR

Dr. Gascoyne – made UBC history by becoming the first clinical faculty member to receive a Killam Research Prize .

Dr. Gascoyne is also being awarded an Honorary Doctorate degree from the University of Paul Sabatier in Toulouse France, to be awarded on April 12, 2012.



DAVID HUNTSMAN, PROFESSOR

Congratulations to Professor David Huntsman for being awarded a 2011 UBC Killam Research Prize.

THE UBC BACHELOR OF MEDICAL

THIRTY YEARS OF WOR

CAROL PARK AND JOANNE WOUTERSE

LABORATORY SCIENCE PROGRAM

RLD-CLASS GRADUATES

Since 1980, the UBC Department of Pathology and Laboratory Medicine has offered an undergraduate degree in medical laboratory science through its Bachelor of Medical Laboratory Science (BMLSc) Program. The Program was developed in the late 1970s as the result of a joint initiative of the BCSMLS (BC Society for Medical Laboratory Science) and the University of British Columbia, with the aim of expanding and enhancing career and educational opportunities available to registered medical technologists (RTs) and students of the life sciences. Faculty members of the Department who were instrumental in the development of the BMLSc Program were Professor Charles Culling, Dr. Donald McLean, Dr. Phil Reid, and former Department Head, Dr. David Hardwick.

Prof. Charles Culling

Dr. Donald McLean

Dr. Philip Reid

Dr. David Hardwick

The initial intake into the BMLSc Program was four students in September 1980; this cohort graduated in May 1982. Since that time, the Program has expanded considerably, reaching a total annual enrolment of 40 students on average, with 15 courses taught by approximately 70 faculty members of the Department of Pathology and Laboratory Medicine and other UBC departments.

For three decades, the UBC BMLSc degree has provided motivated and dedicated individuals with career opportunities previously not available to them and helped them to fulfil their personal goals. Our BMLSc graduates have gone on to pursue a diverse range of interesting, challenging and rewarding careers, and many are world-class leaders in health care and medical research.

TERRY BAINBRIDGE (1982)

After graduating from the BMLSc Program, Terry pursued MSc (Pathology) and MD degrees at UBC, as well as a residency in Anatomical Pathology. He subsequently completed a Fellowship in Anatomical Pathology at the Baylor College of Medicine, and a Fellowship in Oncologic Surgical Pathology at the University of Texas MD Anderson Cancer Center, Houston. Terry currently holds the position of Clinical Assistant Professor in our department, and is Consultant Oncologic Surgical Pathologist, BC Cancer Agency, and Surgical Pathologist, Kelowna General Hospital.

"Long time ago now but fond memories and a very good program. I enjoyed interacting with/learning from Charles Ramey, Phil Reid and Charles Culling - grand fellows!"

JOHN HILL (1988)

John completed his MSc and PhD degrees in Pathology at UBC. After a postdoctoral fellowship at UCLA, he returned to the UBC Department of Pathology and Laboratory Medicine, where he now holds the rank of Associate Professor and is Director of the Atherosclerosis Specialty Laboratory at St. Paul's Hospital.

"The BMLSc provided the basic building blocks to continue my career as a research scientist in Pathology and Laboratory Medicine. The most valuable experience was being exposed to a variety of disciplines within Pathology, many of which I continue to use today. The small class size allowed greater interaction with my peers and we enjoyed excellent quality of teachers."

LYLA YIP (1982)

"After the BMLSc Program, I obtained an MSc in Health Planning in Administration, and certification as a Doctor of Traditional Chinese Medicine. In 2003, I became one of the first Registered Doctors of Traditional Chinese Medicine (outside of China) and am currently practicing in Vancouver. The degree gave me a solid background in Western medicine and helped me to understand about the 'artefacts' of laboratory findings. What I enjoyed most about the program was the high quality of instructors."

SHERIN RAHIM-JAMAL (1989)

After graduating from the BMLSc Program, Sherin obtained an MSc in Health Services Planning and Administration from UBC. She subsequently worked in the Department of Psychiatry and at the Centre for Health Services and Policy Research (CHSPR) at UBC. Sherin is the Leader for both the Centre for Healthy Aging and the Centre for Practitioner Renewal at Providence Health Care. She is currently enrolled in an Interdisciplinary PhD program (Social Dimensions of Health) at the University of Victoria.

"The BMLSc program provided me with a foundation in the health sciences ... [What did I enjoy most about the program?] The small class size, the availability of the instructors, the willingness they had to teach, and the support and guidance that was provided to students."

STAN SHAW (1989)

Stan completed a PhD in Pathology at UBC, and is currently a professional IT project manager (PMP), specializing in health care and higher education. He has worked with all provincial Health Authorities, and in several First Nations health care organizations in various leadership roles. Currently, he is the acting Vancouver Regional Lead for the Physician Information Technology Office (PITO).

"The BMLSc program provided fundamental analytical and presentation skills that were instrumental in both pursuing my PhD, and later when working in the health care and IT community. It also brought me in close contact with a number of teaching staff who have since become both friends and invaluable contacts after I completed my training and entered the professional community…The most valuable experience I gained from my studies in the BMLSc Program was that it broke the 'glass ceiling' between technical training as a general laboratory technologist and a deep understanding into the pathology foundations of laboratory science. From this, I was given the opportunity to choose a career that could take many directions, from basic science research to clinical chemistry, to health care management... I use my training from both the undergraduate and graduate programs on a daily basis when working to address information technology challenges in the medical and higher education community."

BRAD SPILLER (1989)

Brad completed his PhD in Pathology at UBC with Dr. Dana Devine in 1994. He was subsequently recruited by one of the leading international complement research laboratories at the University Hospital of Wales, UK. Following a successful postdoctoral position, Brad was the recipient of a Wellcome Trust Career Development Fellowship at the University of Wales College of Medicine. He is currently a Senior Lecturer in the Department of Child Health, Cardiff University.

"I have always had a focus on pathogenesis in human patients, despite occasionally forming collaborations with UBC members to investigate potential therapeutics in animal models of disease. Having training in histochemistry, clinical chemistry and toxicology have always been helpful in interfacing with physicians to access patient samples for research, as well as developing clinically relevant investigations… I was very fortunate to be mentored by outstanding individuals with a heart-felt focus on student training and apprenticeship, who made learning exciting and fun. I have adopted similar approaches to training PhD and MD students in my lab. More than 20 years later, I still occasionally bump into lecturers at international airports and conferences and keep in touch with people that I met through the program."

SONJA NEHR-KANET (1990)

Following completion of her BMLSc and MSc (Human Reproductive Biology) degrees at UBC, Sonja held various teaching positions, including Medical Laboratory Technology (MLT) Program Director at Pima Medical Institute (Seattle). She is currently Clinical Associate Professor and ISU CLS/MLS Program Director at Idaho State University.

"My degrees at UBC have helped me to achieve even more than I had envisioned when I returned to school in 1988. The combination of my BMLSc/MSc degrees has permitted me to teach at private school, non-profit [organizations] and obtain a teaching position at a university. The most valuable experiences I gained from my studies in the program are a love of teaching and sharing knowledge, as well as the passion, empathy and dedication of the faculty in the BMLSc Program…My experiences at UBC continue to influence my daily efforts as a Clinical Associate Professor/Medical Laboratory Science Program Director. I continue the tradition of sharing the love of Medical Lab Science and contributing to the creation of quality future lab professionals."

LISA MORROW (1991)

Lisa graduated with honours from Ontario Veterinary College (2000) and worked in mixed rural practice in England for four years. She was Head of Veterinary Services for Cats Protection, a UK-wide cat charity, before completing a master's degree in Veterinary Epidemiology at the London School of Hygiene and Tropical Medicine and the Royal Veterinary College. Currently, she works as a Field Veterinary Officer at Cats Protection.

"The BMLSc degree prepared me for my current career in many ways. The broad-based nature of the subject matter meant that in most things I studied later there was something that could be applied from the BMLSc teachings. It gave me the skills to be able to adapt to the unexpected and apply basic principles to novel situations. The very high quality teaching and small group setting fostered in me a life-long desire for learning. The variety of topics we learned about and being in a small group of people was what I found most enjoyable about the program."

NEIL LALACH (1991)

After finishing his BMLSc degree, Neil returned to the Okanagan, where he worked at Vernon Jubilee Hospital and Penticton Regional Hospital. He completed the Modern Management Program with the Canadian Healthcare Association, obtained a certificate of Continuing Professional Studies with the CSMLS, and fulfilled the requirements for the Certification Maintenance Program as a Medical Laboratory Scientist with the ASCP. Neil currently holds the position of Hematology Supervisor at Kelowna General Hospital.

"The BMLSc degree was part of the job requirements for my current Supervisor position. I considered the BMLSc program to be an extension of my Laboratory Technologist training. For me, the program built upon the knowledge I learned at BCIT. The instructors were top-notch and leaders in their respective fields, which provided an academic atmosphere, taking my education to the cutting edge in current knowledge… Classes were a perfect size, staff were helpful and keen to work with students. The program was a truly challenging and satisfying experience."

MIKE HOEFER (1992)

Mike completed a Master of Health Administration (MHA) degree at UBC in 1994. He was self-employed as a management and health technology consultant, and also worked as the provincial Communicable Disease Coordinator at the BC Centre for Disease Control. Mike began a successful career at Northern Health as a Health Service Administrator (Burns Lake), as Regional Director, Diagnostic Services (Prince George) and he is currently Regional Director, Capital Planning and Support Services.

"My BMLSc was my foray into higher education. After working as a technologist, I decided to go back to school and the first step was this degree. It prepared me for everything: the master's level program, going into management, knowing the health system, and the clinical side of health care really helped me get a foothold in the industry…I would have to say [what I enjoyed most was] the exposure to a wonderful department, and probably most memorable, the entire faculty whose experiences and expertise were willingly given. Another positive experience was the rest of my class and those in classes ahead and behind me. Their social support and the collegial environment were what convinced me I could do one more degree... A great place to learn and I am forever grateful."

Christine Jacob (née Nisbet) and Jerry Jacob

CHRISTINE JACOB (1992)

"After graduation from BMLSc, I was accepted into the Radiation Therapy Program at the Vancouver Cancer Centre. I finished this program in 1995 and have been working in this profession ever since. Jerry (Jacob) and I met when we both entered the BMLSc program. We were married in 1995 and then moved to Victoria, which is my hometown, and have lived here since then. We now have two boys, ages 9 and 12…We look back on the BMLSc Program with fond memories. Jerry and I were both science students when we entered the program and had no previous medical lab experience.

BMLSc helped expose us to a medical setting which we both use to this day. It gave me a strong background in many concepts that I use in my everyday work treating patients with cancer. We liked that it was a small program and we felt that we were able to get to know the professors and they got to know us."

JERRY JACOB (1992)

"I was accepted into the UBC dental program. I graduated in 1996 with a DMD degree and now have my own private dental practice in Victoria. The BMLSc Program's curriculum provided an excellent stepping stone for dentistry. Exposure to such courses as histology, pathology and immunology made first year dentistry a lot easier. As Christine mentioned, we really enjoyed the small class sizes and the opportunity to really get to know our instructors, professors and fellow classmates."

CAMILLE ROZON (1993)

A graduate of the Medical Laboratory Technology Program at Dawson College, Montreal, Camille moved to Vancouver to complete both her BMLSc and Master of Health Administration (MHA) degrees at UBC. She is a holder of the Applied Project Management Certificate (PMP), International Association of Project Management Level D Certification, and is a Certified Health Executive (CHE). Camille has worked in a management positions for various organizations, including the Provincial Blood Coordinating Office, Canadian Arthritis Network, Arthritis Research Centre of Canada, and Vancouver Coastal Health. She is currently a Change Specialist/ Accreditation Leader for Providence Health Care.

"My BMLSc degree paved the way for a master's [degree] and a varied and interesting career in health care - after the [BMLSc] Program, doing a master's was easy! What I enjoyed most about the program was the small group learning environment, and good balance between didactic and practical hands-on experience... Excellent supportive staff and instructors."

TIM SEABROOK (1995)

After his BMLSc degree, Tim pursued a PhD in Laboratory Medicine and Pathobiology at the University of Toronto. He completed a postdoctoral fellowship in the Neurosurgery Department at Harvard Medical School and held positions as Instructor at Harvard Medical School, and Research Investigator at Novartis (Switzerland). Tim is currently Director, Immunohistochemistry at Merck Serono (Switzerland).

"The [program's] small class size was especially important to me, and the easy access to tutors and teachers was especially helpful, as I did not have any university experience before this and had been out of school for a few years. I must admit that I was completely overwhelmed for the first few weeks and really needed the support.

The fact that the BMLSc built on the knowledge that a Medical Lab Technologist has already acquired made the courses relevant to me… The BMLSc Program was my first experience with performing research - before this I didn't have an inkling of what happened in a research lab. Because of my BMLSc, I was able to obtain my MT (ASCP), enter a PhD program and progress to my current position. Without it I wouldn't have been able to accomplish any of these things."

SAIMA HABIB (NÉE KASSAM) (1998)

Following graduation, Saima obtained certificates in bioinformatics, training specialist and project management in biotechnology, and has held various research, clinical and industry positions. She is currently a Senior Field Applications Specialist at Affymetrix, working with clinical laboratories, individuals in biotechnology and pharmaceutical companies, government institutions, and research institutions. In this position, she consults with and supports customers who perform and interpret data from microarray analyses.

"The BMLSc degree gave me exposure to a number of different areas of specialization and gave me practical experience in each of these areas. The program also provided me with background knowledge in a variety of disciplines, but specialization in one which moved my career forward in genomics. Having exposure to multiple disciplines allowed me to gain general knowledge in all, but further specialize during and after the program in the specific area of my interest… I enjoyed having a smaller class size and exposure to experts in the field and on campus. The program was very dynamic and really helped me to advance my career."

CHERYL KELLY (1999)

Cheryl obtained a law degree at the University of Alberta in 2003, after which she spent several years in private practice as a Corporate Energy Associate at a national law firm. She is currently employed as Senior Legal Counsel at Talisman Energy in Calgary.

"I always have people ask me how I ended up in Law, after hearing my undergraduate background. Although I don't directly use the specific knowledge that I learned in the BMLSc Program in my day-to-day work, the program certainly helped make me a more rounded and interesting person. I enjoyed the hands-on nature of the program and the ability to work closely with a tightly- knit group of peers."

MARTIN KANG (1998)

Martin pursued an MSc degree in Pathology at Queen's University (Kingston) after graduation from the BMLSc Program. He subsequently returned to UBC, where he is currently completing a PhD in Medical Genetics under the supervision of Dr. Michael Hayden.

"I can't even begin to explain how much the BMLSc Program has helped me so far. It provided a broad background in many areas of my research, both as a graduate student and research technician. It gave a really good background in both clinical and basic science areas and allowed me to feel confident in discussing these subjects with my peers and pursuing them in my work. The depth and the breadth of the courses and subject matter really creates a well-rounded health sciences student capable of handling subjects in many relevant areas, as well as learning how to deal with the pressures of future work and schooling. I enjoyed my fellow classmates, my instructors and learning so many new and diverse topics... Easily the two years of university where I learned the most, and two of my best undergraduate years."

MERRILEE HUGHES (1999)

A successful BMLSc graduate with a talent for writing, Merrilee completed the Master of Journalism Program at UBC, specializing in health reporting. Some of the positions she has held include Staff Writer for Canadian Blood Services (Ottawa) and Copy Editor for Springer-Verlag (Germany); she also worked as a freelance journalist and received her Diplôme de Langue from the Université d'Aix-Marseille. At UBC, Merrilee was employed as Research Coordinator in the Faculty of Medicine and she currently holds the position of Grant Facilitator in the School of Nursing.

"This degree [BMLSc] has informed my work across a variety of fields – health journalism, academic publishing, research project coordination, and grant facilitation. I am well-acquainted with a wide range of biomedical research and health care issues. My studies during this degree underpin my current understanding of the scientific process, pathology, epidemiology, and statistical analysis. It is also the framework that I have built on in subsequent degrees and in my career. [What I enjoyed most was] the small class size, engaged professors, hands-on instruction, and enthusiastic, committed peers."

BRENDA FARNQUIST (2000)

While working as a Medical Laboratory Technologist in Ontario, Brenda began her BMLSc studies by distance education, and then moved to Vancouver in 1997 to complete her degree as a full-time student. She obtained her MD at UBC and went on to pursue a Radiology Residency at Queen's University (Kingston) and a Women's Imaging Fellowship at Brigham & Women's Hospital/Harvard Medical School. Brenda is currently a Staff Radiologist and Assistant Professor of Radiology at Queen's University (Kingston) doing a Musculoskeletal Imaging Fellowship.

"[How did my BMLSc degree prepare me for my current career?] First, it fulfilled most of the pre-requisites I required for medical school. Secondly, it has served quite useful in the radiologic/pathologic correlation of the studies I assess and biopsies I perform as a radiologist. The most valuable experience I gained from my studies in the BMLSc Program was definitely the research experience, for the development of inquisitive thought and introduction to research techniques. What I enjoyed most about the program was my fellow students and instructors for their comradeship, support and direction."

CAROLINE NAKATSUKA (2000)

In addition to her BMLSc degree, Caroline completed an MSc in Occupational and Environmental Hygiene at UBC, as well as a Bachelor's degree in Education from SFU, along with her teaching certificate. She currently works for the BC provincial government as the Manager of Occupational Health for the Mines and Mineral Resources Division of the Ministry of Energy and Mines.

"My BMLSc prepared me for my MSc as it helped me to better understand the potential effects of worker exposures to occupational health hazards, and I use this in my current job as well. The most valuable experience I gained was the variety of lab experiences, projects and information. It provided a broad experience which has been extremely helpful in my MSc studies and my current work. I enjoyed that there was so much to learn and that so many different areas were covered - not just theory but a lot of hands-on work and transferable skills."

FAYE SIRIANNI (2001)

Following graduation, Faye worked for three years as an Electron Microscopy Technician at the iCAPTURE Center at St. Paul's Hospital. She published papers in prominent journals and attended numerous conferences before entering medical school at UBC and obtaining her MD. Faye completed a family medicine residency in Calgary, where she currently practices as a family doctor and participates in low-risk obstetrics.

"Through my BMLSc degree, I was given a firm base in lab science which focused on pathology and helped to prepare me for medical school. I have a unique perspective in that I understand the background theory of the tests I order for patients. The [comparatively] heavy course load also prepared me for the rigors of medical school and I learned how to study as an adult. I really enjoyed the high instructor-to-student ratio [in the BMLSc Program]. Students would never get that in larger programs! I think the most valuable experience for me was gaining a mentor who helped me both in my career planning as well as my life in general."

BRIAN WONG (2001)

Following graduation, Brian completed his PhD in our department. During his graduate training, he received doctoral research awards from the Heart and Stroke Foundation of Canada, the Canadian Institutes of Health Research and the Michael Smith Foundation for Health Research. He is currently a postdoctoral fellow at the Vesalius Research Center (Belgium) and is the recipient of a postdoctoral fellowship from the FWO (The Research Foundation - Flanders).

"BMLSc was a great mix of basic science theory and clinical laboratory tests that provided both fundamental knowledge of techniques and science, practical knowledge of many techniques useful in the clinical and biomedical research laboratory, and also very useful courses that were structured in a problem-based learning format. Classes were filled with practical knowledge that was mostly framed around health and disease. The most valuable experience was completing a directed studies course (PATH 438) with Dr. Bruce McManus, who later supervised my PhD studies."

IAN WILSON (2002)

Ian completed a PhD in Pathology at UBC and was the recipient of a CIHR Senior Student Fellowship and a MSFHR Senior Student Fellowship. He is currently doing a Canadian College of Medical Geneticists (CCMG) Molecular Genetics Fellowship at Vancouver Children and Women's Hospital.

"The study of such a wide variety of disciplines within pathology, as offered by the BMLSc program, has been immensely helpful in getting me where I am today. The interdisciplinary nature of many of the BMLSc courses taught me to see the whole picture of human pathology – from molecules to populations. What I enjoyed most about the program was the camaraderie and quality of instruction in the BMLSc program - it is second to none within the University."

BARRY McTAVISH (2002)

Barry is a Registered Technologist who entered the BMLSc Program as a distance education student while working in Churchill, Manitoba and Sioux Lookout, Ontario; he completed some of his degree requirements by attending UBC as a full-time student for a year.

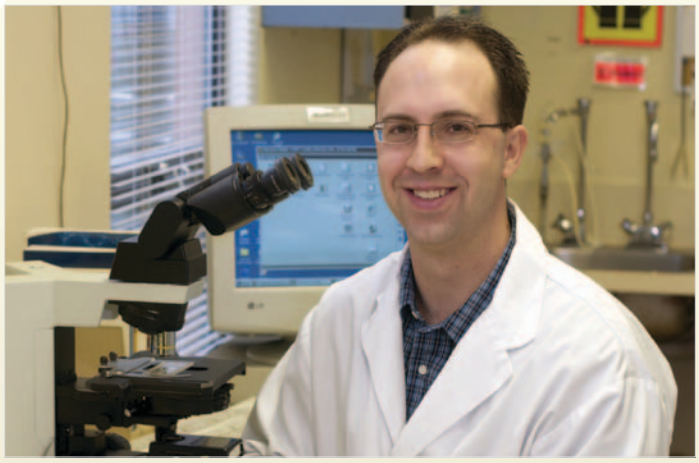
After graduation, he went on to obtain a Master of Biotechnology at the University of Calgary and a Genetics Technology Diploma from BCIT. Barry is currently working as a Cytogenetics Technologist at the Health Sciences Centre in Winnipeg.

"The BMLSc degree prepared me by teaching me to work independently as well as within a group. The thing I enjoyed the most about the program was the location. The UBC campus was amazing. Having grown up in Manitoba, having a winter with no snow was quite novel!"

PAULINE SO (2003)

A recipient of a University of Toronto Graduate Fellowship award, Pauline obtained her MSc in the Department of Laboratory Medicine and Pathobiology. She then carried out research on Alzheimer's disease for her PhD in the Molecular Medicine Department at the Boston University School of Medicine, and completed a fellowship at the Harvard NeuroDiscovery Center. Pauline intends to pursue further training for a career in research.

"The various courses taught in the program provided me with medical knowledge and practical hands-on experience in a wide variety of laboratory techniques, which is very useful for a career in science. Many of the skills that I learned in the program are transferable to many laboratory settings, and it helped a lot when I was working in research labs later on… We were also trained in communication skills such as writing and presentations, which is also very important. The most valuable experience that I gained would probably be the directed research elective (PATH 438) that I did at the BC Center for Disease Control. It was my first real research experience - this is how I became interested in a career in research in the first place."



ATILA ALMOS (2003)

Attila pursued his BMLSc degree by distance education while continuing his career in the clinical laboratory, specializing in clinical chemistry. He went on to complete a Master of Health Administration degree at UBC in 2005. Attila is currently Regional Laboratory Scientist (Biochemistry) for Fraser Health Authority with responsibilities including quality control/quality assurance, policy and procedure development, and methodology support.

He is an active member of the Clinical Chemistry Advisory Committee for the Diagnostic Accreditation Program of BC; at the national level, he served as a committee member for Canadian Institute for Health Information (CIHI), working to re-develop the workload measurement system used in the public laboratory system.

"The BMLSc Program provided me with a solid and detailed knowledge extension, building upon my previous technical training from BCIT. Ongoing education and advanced training are needed for senior positions and specialty testing in the health care environment, and the BMLSc is a recognized requirement for these… The BMLSc Program offered many hours of hands-on application of advanced laboratory techniques to help develop and enhance the academic theory throughout the program. Advanced methods ranging from specialized microscopy, to analytical chemistry to PCR analysis are examples of the many techniques utilized in clinical and research laboratory settings. The BMLSc courses quickly advanced my knowledge and this directly translated to my activities in the workplace. After only a few years of work I was able to take on senior positions in the hospital laboratory. Overall the BMLSc is truly a hidden gem among the UBC undergrad science programs! It provided me with flexible learning options, small class sizes and a very 'personal' program where I felt part of a team working to ensure the best learning for the students. I feel I can directly attribute my last decade of work and experience to the BMLSc Program."

WINNIE NG (2003)

After graduation, Winnie was employed in our department as a technician. After working as an optometrist office assistant, she decided to continue her education and was accepted into the Optometry Program at the New England College of Optometry, Boston, where she recently completed her OD degree. Winnie is currently a practicing optometrist and resides in Nanaimo.

"The BMLSc Program set a really solid foundation for me to pursue my career in the medical field. Not only did I gain knowledge, I also made many friends and gained self-confidence."

ANANTA GURUNG (2003)

Ananta was the recipient of a University of Toronto Entrance Fellowship and pursued his MSc studies in the Department of Laboratory Medicine and Pathobiology as part of an interdisciplinary health research team working on musculo - skeletal neoplasia. He obtained his MD degree at UBC and is currently an Anatomic Pathology Resident in our department.

"The BMLSc Program is excellent preparation and academic background for medicine and also provides real hands-on learning for those interested in pursuing a career in research. The whole program is great - really organized and well structured. The small class size allows one to develop close friendships with fellow students and long-lasting professional friendships with professors and administrative staff. The best thing about the program is the quality of its instructors."

PATRICK WONG (2003)

Patrick completed both an MSc degree in Pathology and MD degree at UBC. He is currently a General Pathology Resident in our department.

"Honestly, I had previously never thought about going into General Pathology because of the breadth and volume of knowledge to be obtained. However, the BMLSc program trained me so well in all areas of the medical laboratory that I felt that I was up for this challenge. Now, I am loving every minute of this experience. Aside from the academic material, the friendships that were made in the BMLSc Program were one of the most valuable experiences for me. I most enjoyed the small class size and close teaching relationships with the professors. This amount of collegiality would not be found anywhere else. It made learning more tangible and fun. I never thought that I would be working with the professors that once lectured us during my BMLSc studies, but now, it is an honor and privilege to be working with them on a daily basis."

ERIN CHAPMAN (NÉE KELLY) (2004)

Erin entered medical school at the University of Western Ontario after finishing her BMLSc degree. During her medical training, she was awarded the P.C. Shah Summer Scholarship in Pathology and participated in research and diagnostic work in the Pathology Department. She received her MD in 2009 and was accepted into the Residency Program in our department. Erin is currently a third year Anatomic Pathology Resident (on maternity leave).

"The courses [in the BMLSc Program] provided a very definite link between the theory of life sciences and real-world situations - something that is not part of most life sciences programs. This real world connection is what got me interested in being a doctor/pathologist. [For me], there is not one specific experience but rather the dedication of the instructors that makes the program meaningful for each individual student. In all courses I received feedback to help me improve. For example, I still use the techniques we were taught and the feedback I got in PATH 405, the "how to teach" course, when I am preparing a presentation. I most enjoyed that we were given challenging work as students and were encouraged to work together to problem-solve."

MICHELLE HARRISON (2004)

Michelle is a Medical Laboratory Technologist who completed her BMLSc degree through distance education. She then pursued a master's degree in Exercise Physiology at The University of Texas at Austin, and has recently entered candidacy for her PhD.

"My BMLSc degree provided the strong science background that allowed me to pursue graduate school. During the first year of my master's degree I realized how extensive and thorough my undergraduate education had been, and I was extremely grateful for having had the opportunity to pursue my degree in the manner that I did [through the correspondence option]. The experience of having obtained my degree through this less-traditional, long-distance manner left me with valuable skills along with an education. In addition to obtaining fundamental knowledge through academic course work, my undergraduate studies prepared me for graduate school by strengthening my ability to work and learn independently, solve problems with minimal guidance, and to effectively organize and manage time."

JENNIFER WILCZEK (2004)

Jennifer graduated from the Optometry Program at Pacific University, Oregon in 2010 and currently works as an optometrist at a private clinic in her hometown, Prince George.

"The [BMLSc] program provided me with almost all of my required courses needed to apply for optometry school. I think the whole program was valuable as it was what I was looking for in my undergraduate experience at the time. It gave me the opportunity to explore the many different aspects of medicine and what opportunities were available to me."

DARYOUSH BABAKHANI (2005)

Daryoush received training in medical laboratory science in Iran (Tehran Medical University) before entering the BMLSc Program. After graduation, he completed CSMLS courses in order to prepare for the national certification exam, which he passed in 2010. Daryoush currently works as a Medical Laboratory Technologist in the Virology Laboratory at St. Paul's Hospital.

"[Since] most of the tests that we perform in our lab are PCR, some [BMLSc] courses, especially the molecular biology course, have helped me a lot in my current position. The BMLSc Program also helped me to pass my CSMLS exam: CSMLS [required] me to take Blood Bank and Histotechnology courses in order to be qualified to register for the exam… The small class size gave us a good opportunity to interact directly with our instructors and professors. Most of the instructors were very helpful and were always ready to help us if we had any questions. Staff were very nice and friendly and very flexible… I have some very close friends from my program at UBC!"

STEPHANIE POPOFF (NÉE WIEBE) (2005)

After graduating from the BMLSc Program, Stephanie worked as a Medical Laboratory Technologist at BC Children's Hospital and later at Prince George Regional Hospital; during this time she completed a Bachelor of Education degree. She currently is an Instructor/Summer Practicum Supervisor in the Medical Laboratory Technology Science (MLTS) Program at the College of New Caledonia in Prince George.

"[The BMLSc Program] was the fastest route for me to achieve a bachelor's degree with my previous education [as an RT], so that I could enter an Education program in my goal of becoming a teacher. Taking PATH 405 and having to instruct my fellow classmates on current topics in science validated my choice of a potentially new career. What I enjoyed most about the program was being instructed by some amazing Pathologists that not only were experts in their fields but also knew how to [teach] and enjoyed passing their knowledge to us students. When I go to a conference where some of them are speaking, I immediately try to sign up for their seminars."

CHALLAYNE KENNEY (NÉE SMITH) (2006)

Challayne continued to work for the Genetic Pathology Evaluation Centre (GPEC) as a lab technologist after graduation from the BMLSc Program, eventually working her way up to lab manager. She completed a Masters of Health Education degree at Simon Fraser University, and is currently Coordinator for Self-Management Programs for the Northern Health Region. Her focus is support for improving the quality of life for people living with chronic health conditions.

"The BMLSc Program gave me a skill set that is a solid foundation for graduate studies and the working world. It helped teach me how to be a critical thinker, as well as giving me a broad knowledge base of the pathophysiology of disease, research methods and theory of laboratory techniques. In addition, the intimate class size provided invaluable one-on-one time with professors. I really appreciated being able to get to know them, as well as for them to get to know me. The support and insight I have gained from the Program's faculty members is immeasurable."

DYLAN THOMAS (2006)

After obtaining his BMLSc, Dylan worked as a technologist at the UBC Centre for Forest Conservation Genetics before deciding to pursue graduate studies in the Faculty of Pharmaceutical Sciences at UBC, where he is currently a PhD student. He holds a four-year fellowship, is a presiding officer for the Pharmacy Examination Board of Canada, and is involved in research on enzymes involved in epigenetic regulation.

"I enjoyed the unique, pathology-centered BMLSc curriculum. The course and lab work imparts a set of skills useful to both those that wish to pursue graduate research or medicine. Aside from having a strong, practical laboratory component, the BMLSc Program teaches the very useful (and undervalued) skill of effective instruction and communication. Training in the ability to critically analyze and then present studied concepts in a comprehensible form is a skill that is not only essential in science, but nearly all walks of life… I was presented with a learning environment that was both non-threatening and fostered teamwork. The program is filled with knowledgeable people who are not shy about lending their expertise - there are many helpful faculty members who are genuinely concerned about the future of their students."

EDNA BUCHAN (2007)

After obtaining her BMLSc degree by distance education, Edna continued working as Water Program Manager for the American Samoa Environmental Protection Agency before completing a Master's Degree in Environmental Science at the University of Wollongong (Australia). She now resides in Hilo, Hawaii where together with her husband, she operates a consulting company that provides technical assistance to environmental agencies throughout the Pacific.

"The BMLSc degree program provided me an opportunity to continually hone my academic and professional skills [and] also prepared me to continue my education for a master's degree. [This] increased my competitive advantage for increasingly challenging positions and higher salaries. The most valuable experience I gained from my studies in the program was perseverance. [Obtaining] the degree through the distance delivery option took 12 years, which was completed while working a succession of professional jobs and sailing our 34-ft sloop throughout the Pacific and Asia."

CRYSTAL LEUNG (2007)

After graduation, Crystal worked at the James Hogg Research Center as a Research Technician in the Cardiovascular Registry/ Histology Departments. Currently, she is in her first year of studies in the prestigious Pathologists' Assistant Program (Master of Health Science degree) at Duke University in North Carolina.

"BMLSc played a significant role in preparing for my previous employment and my current studies - it enhanced my passion for pathology and histology. I had a solid educational background and practical experience to allow me to take on my roles as a research technician. What I have learned and the course load of BMLSc prepared me for the intense and in-depth courses in the Pathologists' Assistant Program. Most valuable was the diverse educational experience ranging from all aspects of pathology/ histology, to how to write a grant and give a presentation. I really enjoyed the small intimate class size that made our learning more personalized, and the lecturers who had different areas of expertise. I've gained life-long friendships from this program. Although the two years of BMLSc studies were intense with many things going on, it was very enjoyable and I would totally do it all over again!"

SHAYAN SHAKERANEH (2007)

Shayan entered the Master of Public Health (MPH) Program at UBC, where he is currently in his final year. He was the recipient of the Standing Tall Award from Coast Capital Savings for demonstrating courage, determination, and resiliency in overcoming significant personal challenges to achieve his education.

"The courses I took for my BMLSc degree corresponded precisely with my interests. They gave me an opportunity to explore various topics of study in a close-knit setting. The topics of study ignited a passion for public health and medicine and encouraged me to continue my studies. My most valuable experience was the mental exercise of critical thinking that I practiced consistently throughout my degree. This training has been proven valuable in my daily life, in any context, and in my current academic life. What I enjoyed the most about this program was the intimate academic environment. I benefited greatly from small group work which paved the way for many close friendships that I maintain to this day. "

MARC SZE (2009)

Marc was awarded a UBC Graduate Entrance Scholarship and recently completed his MSc in Experimental Medicine under the joint supervision of Drs. James Hogg and Donald Sin. He was also the recipient of a travel award to the American Thoracic Society Conference, as well as a best presentation award at the Experimental Medicine Student Research Day. Marc is currently continuing research on the topic of the microbiome in the lungs of healthy individuals and those with Chronic Obstructive Pulmonary Disease.

"The BMLSc Program gave me the fundamental molecular biology and histological skills to be able "jump" right into my research project, allowing me to complete a master's degree in less than two years. The histological component was the most challenging, but also the most enjoyable part of the program, and allowed me to start a summer research project using quantitative histology on lung tissue [during which time] I met one of my current supervisors... I truly believe that the seminar course [PATH 405] was the most valuable experience I had. Although the course focus was on improving presentation skills, it was the skills of critical thinking and peer- and self- critiquing that I found the most valuable."

TOM YU (2010)

After graduating from the BMLSc Program, Tom entered the Master of Occupational Therapy professional degree program in the University of Alberta, where he is currently a student. He will be graduating this summer and will pursue a career as an Occupational Therapist.

"The seminar course [PATH 405] and multiple chances to deliver speeches in front of my class and the instructors is the most valuable experience I gained from my studies in the BMLSc Program. I used to be quite shy and not very comfortable talking in front of a large audience, but in BMLSc I was able to speak in front of a class with relatively fewer people... I feel much more comfortable now to speak in front of a larger audience in my current program, as well in my clinical practicum. Being together with [the same] classmates in all classes helps to build connections between us, and provides help and support throughout the program. Most of us still keep in touch with each other!"

MEGAN O'NEILL (2010)

Following graduation, Megan moved to Niagara Falls, where she worked as an Electrocardiogram Technician. She is currently a first year student in the UBC Medical Undergraduate Program.

"The BMLSc Program gave me a strong foundation in laboratory medicine and other scientific disciplines, which has greatly enhanced my first year of medical school. Group facilitating and presentation techniques obtained from the BMLSc Program have also aided my current studies as a medical student. Learning and obtaining the skills necessary to critically appraise and present published articles is the most valuable experience I gained from my [BMLSc] studies."

KARL LI (2010)

Karl was the recipient of an Entrance Scholarship to the UBC Master of Food Science (MFS) Program and recently graduated with a MFS degree this past year. He is currently the Hazard Analysis and Critical Control Point (HACCP) Food Safety Program Coordinator and Quality Assurance Manager at Pace Processing in Surrey.

"The BMLSc Program heavily focuses on problem-solving and analytical skills, and these two skills definitely helped me through my graduate studies and my current job. Also, group projects and the teaching course [PATH 405] are very helpful as I get to realize and recognize the way of effective communication, which is a must in the working environment. For me, the most valuable experience is that all the labs are hands-on and we get to use all the equipment and perform various lab techniques rather than watching a demo. The sense of community is what I enjoyed the most throughout the program."

2011 BMLSC GRADUATES WITH STAFF AND FACULTY MEMBERS

GRADUATE STUDIES PROGRAM

DR. HAYDN PRITCHARD

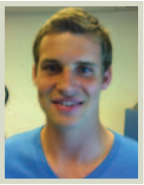
We would like to introduce you all to our largest-ever intake of new students into our Graduate Program. As you can see, 23 students commenced either their MSc or PhD degrees during the 2011 calendar year. Most MSc students will transfer to the PhD program during their second year, and we anticipate that this class will become the cornerstone of the program over the next 4-5 years. The students are dispersed over the 4 geographic sites, yet they are strongly bound by our Departmental ties and community.

Please join us in welcoming them to our department, and feel free to contact them through their details which are on the Department of Pathology and Laboratory Medicine – Graduate Studies website: *http://www.pathology.ubc.ca/pathology/.Graduate_Student_Portfolio.html.*

RIKA ALELIUNAS

MSc [January 2011]
Supervisor: Angela Devlin

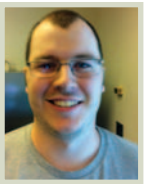
I'm from the Lower Mainland and completed my undergraduate degree here at UBC in Cell Biology and Genetics. Currently I'm a grad student at the Child and Family Research Institute on BC Children's campus, and am interested in developmental programming. Specifically, I'm studying the effect of maternal diet on the development of cardiovascular disease risk factors in adult offspring. In North America, our grain and pasta products are fortified with a synthetic form of folate (folic acid) to prevent neural tube defects in infants. Folic acid is a methyl nutrient which works in concert with other nutrients, providing methyl groups for epigenetic processes such as DNA methylation. Little is known about the effect of elevated folate status during pregnancy, especially when combined with imbalances in other methyl nutrients. The goal of my research is to determine the effect of exposure to imbalances in methyl nutrient status during pregnancy on the epigenetic regulation of vascular gene expression in offspring mice. When I'm not doing this, you will most likely catch me reading on the bus to and from work. I also enjoy surfing, skiing, good food, and long walks on the beach.



MATTHEW ALLARD

MSc [September 2011]
Supervisor: Jiri Frohlich

I am a Master's student working with Drs. Jiri Frohlich and Dan Holmes. During my studies, I will characterize patients with herterozygous Familial Hypercholesterolemia, an inherited condition causing abnormalites in cholesterol metabolism, to determine their cardiovascular outcomes, such as coronary artery disease, and to determine prevalence and potential contribution of classical non-lipid biomarkers to disease pathogenesis in these patients. I was born and raised in sunny Vancouver, BC and recently completed my undergraduate degree in Kinesiology at UBC. I have been a member of the UBC Men's Soccer team since 2006 and recently completed my eligibilty, ending my UBC career in November. I chose to continue my studies at UBC because it is a terrific school with a strong reputation, situated in a city I love (and besides, it allowed me to continue playing on the UBC Soccer team!).



KYLE BURROWS

MSc [September 2011]
Supervisor: Colby Zaph

My research explores the regulation of immunity and inflammation in the gastrointestinal tract with a specific focus on CD4+ T helper cells and the transcription factors that are required for proper T helper cell differentiation and function. My academic background consists of a Bachelor of Science degree from the University of British Columbia with a major in Biochemistry. As well as the UBC Co-operative education program, I completed work placements at TestAmerica Inc. in Anchorage, AK and The Biomedical Research Centre at UBC. My non-academic interests include playing recreational soccer and snowboarding at the local Vancouver mountains whenever possible. The reason why I chose UBC was that I have experience here and I know the campus, the environment and the professors, and I have experienced firsthand what makes this one of Canada's leading universities. Therefore, I made it a priority to remain a part of the UBC community as I go forward with my graduate studies.

ROLINDA CARTER

MSc [September 2011]
Supervisor: Ed Pryzdial

I obtained my AA in General Liberal Arts at the University of Saint Martin (2008), and my BSc (Honours) in Biochemistry and Molecular Biology (Spec.: Health Sciences) from Trent University (2011). My area of research investigates modes of molecular interaction between the formation (coagulation) and subsequent dissolution (fibrinolysis) of blood clots. In particular, my project deals with the previously overlooked role that coagulation factors play in fibrinolysis. My spare time is spent watching basketball games, improving my piano skills, going to the gym,

and listening to music. Professionally, I am interested in research on blood related disorders. I chose UBC because I was strongly captivated by the outstanding reputation and level of research carried out at the UBC Centre for Blood Research (CBR). Due to the diversity and achievements of CBR investigators, I was able to find a project that interests me in the laboratory of Dr. Pryzdial, who is also a Clinical Professor in Pathology and Laboratory Medicine. The above therefore caused UBC to stand out from among my other choices.

ALISTAIR CHENERY

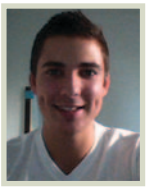
MSc [September 2011]
Supervisor: Colby Zaph

I'm working with Dr. Colby Zaph and my research area is immunopathology. Broadly, I hope to further elucidate the cellular and molecular mechanisms of retinoic acid signaling/metabolism that affect T cell differentiation/function in the context of inflammatory diseases. I completed my BSc. in Microbiology and Immunology at UBC in 2011, so my background is fairly concordant with my current research interests. I'm very passionate about science in general, deeply interested in the stories surrounding the origin of our Universe and the complexity of life. My hobbies include running, badminton, the occasional hike, and driving golf balls (though I haven't played a real game of golf). For the time being, I hope to become a distinguished researcher in my field and I'm very open to the unforeseen opportunities that may arise throughout my career. I chose UBC again because I know it is a great school with a strong research reputation and I love the city in general.

ALEX CHOI

MSc [September 2011]
Supervisor:
Bruce McManus

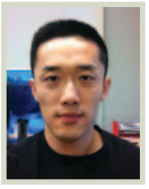
Hello, my name is Alex Choi. I graduated from University of Winnipeg with a Biochemistry major. Besides the fact that Vancouver is much more beautiful and warmer than Winnipeg, UBC has a great academic environment and inspiring professors and students. I am currently working on the replication mechanism of coxsackievirus B3 and planning to develop an antigen chip to be used a diagnostic tool for this disease. I like to try new sports and love listening to music.



CHRIS CIPKAR

MSc [September 2011]
Supervisor:
Peter van den Elzen

I recently joined the Department of Pathology and Laboratory Medicine in September 2011. My current research is aimed at understanding the autoimmunity underlying juvenile diabetes. More specifically, I am interested in the role Natural Killer T cells may play in disease pathophysiology. In June 2011, I received a Bachelor of Medical Science degree with an Honours Specialization in Pathology and Toxicology from the University of Western Ontario in London, Ontario. Outside of the lab I enjoy being active and have a personal goal of trying every sushi place in Vancouver. Choosing to pursue graduate studies at a well-known and research intensive institution such as the University of British Columbia was an obvious choice. Plus, as an added bonus I get to study in Canada's most scenic city!



RICK DING

MSc [May 2011]
Supervisor:
Marianne Sadar

Under the supervision of Dr. Marianne Sadar at the BC Cancer Research Centre, the focus of my research is on characterizing small molecule compound targeted against castration resistant prostate cancer. Specifically, the effect(s) of the small molecule on the N-terminal domain of androgen receptor and its splice variants will be investigated. The scope of my research will include aspects of molecular biology and drug development. Since graduating from SFU with a B.Sc. in Molecular Biology and Biochemistry, I worked for 5 years as a pre-clinical researcher at a Vancouver based medical device company specializing in local drug delivery. Through my vast work in industry, I have gained extensive and diverse experience in the areas of cell biology, vascular biology, microbiology, animal models, drug screening and medical devices. Working in industry was a very rewarding experience for me and allowed me to gain many of the skills required to be an independent and competent scientist. My passion lies with scientific research and I want to pursue it as a life-long career. Aside from work, I enjoy golfing, ocean kayaking, running, and meeting new people!

GABRIEL FUNG

MSc [September 2011]
Supervisor: Honglin Luo

I recently graduated from the Department of Biochemistry and Molecular Biology at UBC with extensive focus in the area of immunology and virology. My research interests in the Department of Pathology and Laboratory Medicine focus on studying the function of cytosolic aggregates called stress granules that form in the response of viral stress induced by the Coxsackievirus type B3; the leading cause of dilated cardiomyopathy. I am fascinated by the adaptive molecular mechanisms that viruses have evolved to evade anti-viral responses and hi-jack host machinery for their own benefit. At the James Hogg Research Centre, I hope to understand the response of the Coxsackievirus type B3 on the formation of Stress Granules, and how this may ultimately lead to novel therapeutics for treating infected patients. UBC is one of the top ranked universities in the area of life science research. Previously being a student at Kyoto University, Institute of Virus Research, I came to understand the importance of team work and a scientific community. UBC successfully fosters the exchange of knowledge and wisdom between scientists. It is because of this that I chose to become a part of the excellence at UBC.

BRYANT HARBOURNE

MSc [January 2011]
Supervisor:
Kevin Bennewith

Hello! My name is Bryant Harbourne. Currently I am in the Master's program in the Department of Pathology. I am originally from Edmonton, Alberta where I did my Bachelor's degree which specialized in Immunology and Infection. I graduated in 2007 and after a couple years off I started looking at Universities across western Canada for potential graduate programs. I choose UBC because of its great reputation and the unique relationship with the other institutions in Vancouver, such as the BC Cancer Agency and the Vancouver hospitals. There is a great attitude of collaboration and translating research into clinical therapies. My research focuses on solid

tumours. I am investigating how hypoxic primary tumours successfully spread and metastasize distant areas creating secondary tumours. It is a real privilege to work in such a great lab and with so many talented people. When I'm not working I like to stay active and that is easy to do in a city like Vancouver. I play soccer with a number of different teams, go sea kayaking, mountain biking and enjoy spending time with family that are now close by since moving here.

JASON HUNG

MSc [January 2011]

Supervisor: Rusung Tan

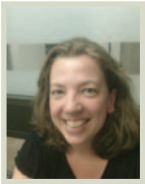
I have a BSc in Biochemistry and Molecular Biology with a minor in Philosophy from the University of California, Davis. My research area is Th17 and Treg cells in Type 1 Diabetes. My personal and professional interests include photography, travelling, and writing. I chose UBC because I liked the city and my lab when I visited, and I thought the research was interesting.

MANU THOMAS KALATHOTTU-KAREN

PhD [January 2011]

Supervisor: Jayachandran Kizhakkedathu

Born in India, where students struggle to enter prestigious institutions like the Indian Institute of Technology (IITs), I feel myself very lucky to be a part of UBC, one of the best universities in the world. It's a dream come true for me. Picking a right university and department is perplexing for most of the students, but I didn't think twice while applying to the UBC Pathology Graduate Program, because of its diverse research areas. A four year undergraduate program in Pharmaceutical Sciences and two year post-graduate degree in Pharmaceutical Chemistry from a well renowned South Indian university (The Tamilnadu Dr MGR Medical University) gave me a flavor of synthetic organic chemistry and pharmacology. My current research project involves development of novel antagonist for clinically used parenteral anticoagulants. I have special interests in gaining more knowledge in blood coagulation disorders, polymer chemistry and other major blood disorders. I believe that my current training in this field will provide a deeper insight in to complex mechanisms involved in blood coagulation and will also help me to develop novel therapeutic agents for major blood related malignancies. My long term professional goal is to become a research scientist, who can make a significant contribution to the public health care system of Canada

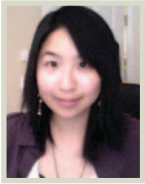


CHRISTA KLEIN-BOSGOED

PhD [May 2011]

Supervisor: Dana Devine

I work in the Centre for Blood Research located in the Life Science Centre on UBC campus, with a Canadian Blood Services Graduate Fellowship. The main focus of my research is protein translation in blood platelets, and especially the role of RNA. I have a Masters Degree (MSc) in Pharmacy and a Pharmacists Degree (Pharm. D) from the University of Groningen in the Netherlands. After graduation I worked in many different areas as a pharmacist (clinical research organisation, pharmaceutical company). Most of my spare time is spent with my family (husband and son), and I enjoy the time living in a country different from my own. I love to take long walks through the beautiful parks surrounding campus and I sing in an a-cappella choir on campus. Through my job as a researcher at the Dutch Blood Supply Organisation, I came in contact with the Canadian Blood Services Research Department at UBC. When we as a family decided to move abroad, I wanted to use this a career opportunity and I applied for the graduate program in Pathology and Laboratory Medicine.



ADA LEUNG

PhD [September 2011]

Supervisor: Marcel Bally

My research interest lies in optimizing combination treatments against various types of solid tumors. Currently, my project in Dr. Marcel Bally's lab focuses on finding and validating new therapeutic targets that may enhance first-line chemotherapy against advanced non-small cell lung cancer. As a recent graduate from the UBC/BCIT joint program of Biotechnology, I decided to enroll in the graduate program of Pathology and Laboratory Medicine at UBC because of its multidisciplinary nature, which will definitely broaden my knowledge beyond the area of oncology. Personally, I enjoy outdoor activities such as sailing and camping during the summer and I do ballet dancing on a regular basis. I have been a scout member since age 7 and am still actively serving as a leader in a Sea Scout group.

VINCENT LEUNG

MSc [September 2011]

Supervisor: Jayachandran Kizhakkedathu

Growing up, I've always had an odd interest in blood, and for this reason, I have attempted to tailor my education around haematology. In conjunction, I found the field of transplantation medicine particularly engaging during my undergraduate studies in the Bachelor of Medical Laboratory Science Program here in the Pathology department at UBC, and hence, in studying transfusion medicine and the potential immunocamouflaging of A and B antigens on the surface of red blood cells, I've found the perfect combination of my two interests. If I can't be found working diligently at my bench, I've most likely snuck out of the lab in an attempt to meet my weekly quota of volleyball! I chose to continue my studies at UBC as I am already familiar with the department, many faculty members, as well as the University. With the Centre for Blood Research located right on campus and close to home, where great opportunities and fine sandy beach volleyball courts exist, it was one of my top choices for graduate school!

WILSON LUONG

MSc [September 2011]

Supervisor:

David Huntsman

My name is Wilson Luong and I am a 1st year Masters student in the Department of Pathology and Laboratory Medicine. My supervisor is Dr. David Huntsman at the BCCA and BCCRC and we are investigating a point mutation in FOXL2 in hopes of functionally characterizing it using genomics and proteomics. I just graduated with a BSc. from UBC in

Cell Biology and Genetics and went straight into the Masters program here at UBC. In my spare time, I like to spend my time fishing, golfing and cheering on the Canucks! I chose UBC because it's near home and it's where I eventually want to settle down.

BEHI MOHAJER

PhD [September 2011]

Supervisor: Mark Scott

I am a PhD student in the department of Pathology and Laboratory Medicine. My research project is about Immunosuppressive Effects of Acute and Chronic RBC Transfusion Therapy. I got my BSc in Microbiology from Tehran University and received my Masters in the field of Molecular Biology from York University. I am willing to work in area which makes a bridge between bench works in the laboratories with the community concerns in terms of disease rates and drug efficacies. To achieve this goal, I intend to work in NGOs focusing on knowledge translations (KT). The reason why I moved to Vancouver was because I preferred to be close to my family. Between two options, UBC vs SFU, I chose UBC because it is one the best universities in North America and is highly ranked in the field of human health.

ERICA OSBOURNE

MSc [September 2011]

Supervisor:

Marianne Sadar

I am investigating the pathogenesis of recurring prostate cancer in Dr. Marianne Sadar's lab at the BC Cancer Agency. Specifically, I am examining castration-resistant prostate cancer (CRPC) and its dependence on the transcriptional activity of the androgen receptor. My research focuses on the androgen receptor splice variant AR-V7 that is constitutively active and is resistant to current therapeutics in the clinic. I will be studying the function and interaction of variant AR-V7 with full length androgen receptor in prostate cancer cells, and the effect of EPI compound small molecule inhibitors that target the amino-terminal domain of the receptor. I completed a Bachelor of Medical Sciences specializing in Biochemistry and Pharmacology at the University of Western Ontario in London, Ontario in 2011. I am an avid runner, hiking enthusiast and shopaholic, fitting in occasional snowboarding trips and volleyball games when I can. In the future, I am interested in learning more about microRNAs, epigenetics and pharmacogenetics. I chose UBC to do my graduate studies because of the research facilities and knowledgeable faculty that provide a constructive atmosphere to pursue my research goals, and it allows me to experience the west coast and meet new people.

ZAHRA PAKZAD

MSc [September 2011]

Supervisor: Joel Oger

My scientific interests lie in the field of neuroimmunology. My research area is in myasthenia gravis (MG), an autoimmune disease of the neuromuscular junction where individuals develop autoantibodies to acetylcholine receptors, resulting in skeletal muscle weakness. I am pursuing my MSc research under the supervision of Dr. Joel Oger at UBC Hospital. My research goal is to find correlations between antibody characteristics and clinical outcome in MG patients which could help predict disease progression. I obtained my BSc from UBC in Microbiology and Immunology in May 2011. During my undergraduate studies I had the opportunity to gain research experience on MG in Dr. Oger's lab. I decided to continue graduate studies at UBC because I wanted to continue research on MG, and having a supervisor who is both a researcher and clinician will give me the opportunity to be in direct contact with the clinical reality of my research. The academic environment at UBC is also one that fosters cutting-edge research. My personal interests include playing the piano and coordinating tutoring programs for elementary school students. I look forward to pursuing my research at UBC and seeing where the next few years take me!

YE QIU

MSc [September 2011]

Supervisor: Decheng Yang

Hi everyone. I'm Ye Qiu from China and I am enrolled in the MSc program of Pathology and Laboratory Medicine in September, 2011. I've joined Dr. Decheng Yang's lab and begun to do the research in UBC's James Hogg Research Center. I graduated from Peking University of China with a Bachelor degree in Biotechnology. Attracted by the campus, the city, the friends, the food, the parks and perhaps the labs here, I chose UBC to continue my study. For research, I'm interested in host-pathogen interactions. My previous research was mainly focused on the internalization of anthrax toxin and HCV and now my project is about Coxsackievirus B3. Outside lab, I love tennis and skiing, though I'm not so good at them. However, interest is the most important, isn't it? Anyway, nice to meet you all and let's enjoy our life here.

SARA SABERI

PhD [September 2011]

Supervisor: Hélène Coté

Research Area: Somatic mitochondrial DNA mutations following HIV antiretroviral therapy: mitochondrial aging? Academic background: MSc in Food Science- Biotechnology, University of British Columbia (2011); Master of Food Science (MFS program), University of British Columbia (2008); Honours BSc in Agricultural Engineering-Food Science and Technology, Azad University, Science and Research Branch, Tehran, Iran (2006). My personal and professional interests include I like investigating novel fields of pathology research. I also like use of new technologies in my research. I personally like the social activities. I have been involved in Graduate Student Society (GSS) of UBC Vancouver. I served at different positions such as Vice President Services. Furthermore, I am interested in art and sports. I am learning playing one Persian instrument (se tar). I have done my masters at UBC. I found UBC a place of multi disciplinary and inter disciplinary research. The diversity of academic and social resources at UBC is always fascinating. I strongly believe that studying ay UBC opens many different doors for me to a high profile professional world.

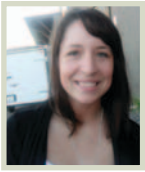
KEVIN TSAI

MSc [September 2011]

Supervisor: Rusung Tan

I am a graduate student under the supervision of Dr. RuSung Tan. Our lab is situated in the translational research building in BC Children's Hospital.I completed my Bachelor of Science at UBC, specializing in Microbiology and Immunology. My research interest has always been immunotolerance,

and its possible applications in treating autoimmune diseases and various forms of malignancies. Through volunteer and directed studies, I have worked in three different labs within and outside of the department of M&I and worked on projects related to cell mobility, islet regeneration, dendritic cell development and cancer immunology. Through recommendation by my directed study supervisor and my professors, I applied and was accepted in to the Tan lab at CFRI. My current research areas are T cell development, auto-immunity, macrophage/dendritic cell induced tolerance and transplant tolerance. When I decided that I wanted to be a researcher doing cancer immunology/ tolerance research, I knew I would attend UBC for its immunology program. Looking back at that decision, I am glad that I made the choice to come to UBC. It was the courses that I been through which shaped me to become who I am today as a scientist. Because I knew I would be under the supervision and guidance of great scientists, at the end it was a very easy decision for me to make to stay at UBC for graduate school.



DEANNA ZANET

MSC [JULY 2011]

SUPERVISOR: HÉLÈNE COTÉ

I started my undergraduate degree at a small college in the Kootenays taking arts and science courses. I graduated from UBC Okanagan in 2011 with a B.Sc. in Microbiology. I did an honours project testing the use of bacteria as biocontrol agents against postharvest fungal pathogens of apples. My current research area looks at telomere length (which has been linked to aging) in HIV-infected and uninfected individuals. I am most interested in the effects of antiretroviral therapy exposure in HIV-infected and uninfected children born to HIV-infected mothers. When I am not in the lab, I enjoy being outdoors, trying new things, and spending time with friends and family. Coming from a small town, Vancouver was an easy choice for grad school because there is so much to do and it is such a beautiful city.

Well done to Dr. Nigel Ball who has been elected President of the American Society of Dermatopathology (ASDP).

The ASDP boasts over 1100 members and is the largest Dermatopathology Society in the world. Nigel, an Anatomical Pathologist at VGH is the first Canadian to become the Society's President.

Elected at the October, 2011 Annual Meeting in Seattle, Nigel`s term will begin in October, 2012. "I aim to expand the Society's educational activities and introduce online self-assessment and maintenance of competence modules. These will be accessible to all Pathologists and will address our new continuing education requirements."

The strength and popularity of the ASDP's Annual Meeting has grown and Nigel promises to uphold the high standards the members expect. "In October, over 900 attendees from around the world came to take part in the 4 day event."

Dr. Nigel Ball and Professor Wayne Grayson, University of the Witwatersrand, South Africa

WELCOME NEW FACULTY MEMBERS

DR. EWAN GIBB | POSTDOCTORAL RESEARCH FELLOW

The BC Cancer Agency Research Centre

I received my PhD from the University of Western Ontario, Department of Biochemistry in 2010. Currently, I am engaging my postdoctoral studies in the laboratory of Dr. Wan Lam at the BC Cancer Agency Research Centre. Here, I am developing a research program focusing on a novel class of mRNA-like transcripts called long non-coding RNAs. These unique genes are differentially expressed in many cancers, and as such I am working to explore the functional consequences of aberrant long non-coding RNA expression in human tumorigenesis.

DR. CHRISTIAN STEIDL | ASSISTANT PROFESSOR

The BC Cancer Agency

I am physician scientist, having obtained my MD degree from the University of Muenster, Germany in 2001, followed by residency training in Internal Medicine and Hematology/Oncology at the University of Goettingen, Germany. I obtained my doctorate degree (Dr med) in molecular pathology from the University of Witten-Herdecke, Germany in 2003 and joined the Centre of Lymphoid Cancer at the British Columbia Cancer Agency as a research fellow in 2006. In October 2011 I have been appointed Assistant Professor of Pathology at the University of British Columbia and Research Scientist in the Department of Experimental Therapeutics at the British Columbia Cancer Agency. My startup laboratory focuses on genetic mechanism underlying immune privilege in B cell lymphomas, the biology of the tumor microenvironment, and biomarker discovery using next generation sequencing.

DR. GRIGORIOS PALIOURAS | POSTDOCTORAL RESEARCH FELLOW

The BC Cancer Agency Research Centre /Genome Sciences Centre

I have a keen interest in understanding how regulatory networks determine cell function and fate and how deregulation of these pathways leads to disease progression. I completed my PhD at McGill University and identified novel components of the Met receptor tyrosine kinase signaling pathway and their impact on cancer development and progression. Following my PhD, I also completed a short postdoctoral fellowship examining the impact of mTOR signaling on the expansion of neural stem cells in the aging/Alzheimer brain. My wife and I have recently moved to Vancouver and I joined the laboratory of Dr. Aly Karsan. My current project focuses on understanding the molecular role of the innate immune signaling in endothelial cells and how specific signaling components affect vascularization and hematopoietic function during development and in the adult. I am very excited about this opportunity and am looking forward to being a member of the UBC scientific community.

DR. MARC SHOKEIR | CLINICAL INSTRUCTOR

St. Paul's Hospital

I grew up in Saskatoon, graduating from medical school at the University of Saskatchewan in 1991. After a year's internship in Victoria, I did General Pathology in the Department here at UBC. Following 15 years of practice in Washington State and Alberta, I was thrilled to rejoin the Department and the group at St. Paul's Hospital, which I still regard as the best gig I have ever had!

PATHOLOGY EDUCATION IN THE UBC MD PROGRAM: WHAT'S NEW IN 2012

DR. JASON FORD

"The campuses in Vancouver, Victoria, and Prince George have now been joined by a new campus in Kelowna: the Southern Medical Program (SMP). "

The new year brings two significant changes to pathology education at UBC Medical School.

The first change arises out of the further expansion of the UBC medical school. The campuses in Vancouver, Victoria, and Prince George have now been joined by a new campus in Kelowna: the Southern Medical Program (SMP). The 32 students in the first year of the SMP (like students in the Island and Northern Medical Programs) began their training in September alongside the Vancouver-Fraser Medical Program students at the main UBC campus. In January their preclinical training moved to Kelowna, where (like students at the other distributed sites) they will follow the same curriculum and have the same lectures and labs as their Vancouver-based peers.

From the perspective of the Department of Pathology, this means we will now offer our small group pathology sessions in Kelowna as well as in Vancouver, Victoria, and Prince George. These clinicopathologic conferences (CPCs) are delivered somewhat differently at each of the four sites. In Vancouver and Victoria, we rely primarily on a team of pathologists to teach the CPCs, while in Prince George the sessions are led primarily by a single pathologist, Dr. Rob McGuinness. In Kelowna, the sessions will be led by Dr Greg Dueck and Dr Bibi Naghibi-Torbati, an oncologist and pathologist, respectively. Drs Dueck and Naghibi-Torbati will be assisted by other local pathologists in delivering the small group sessions to the new SMP first year class, starting in February.

The second change, which continues to evolve, affects the clinical training that UBC medical students receive in Year 3 and 4 of the MD curriculum. As most of the pathologists at UBC are aware, pathology is not considered a "core clinical rotation" at UBC—nor is it at any Canadian medical school. Students are not formally required to have any clinical exposure to pathology as a medical discipline. This oversight (which is, again, not unique to UBC) may contribute to inadequate training in laboratory medicine, and may also contribute to the challenges some pathology departments have in recruiting medical students into pathology residencies. There is little likelihood of

Canadian medical schools suddenly reframing pathology as a core clinical discipline. However, a recent trend in medical education may provide our department with an opening to pursue greater engagement with medical students during their clinical clerkships.

There is a growing consensus among medical educators about the value of formal exit competencies. "Exit competencies" for medical students are a subset of graduation goals or objectives: they describe the minimum standard of behaviours which a medical graduate will be able to demonstrate. Pathology exit competencies would describe what a medical graduate must, at a minimum, be expected to do in the area of laboratory medical practice. This would include ordering and correctly interpreting the laboratory tests for their patients, requesting pathologist assistance when it is clinically appropriate to do so, using pathogenetic reasoning to develop a differential diagnosis, and so on. Medical graduates are of course not expected to "do" pathology (e.g., make a microscopic diagnosis), but instead to appropriately make use of laboratory medicine in clinically managing their patients.

A working group of the Canadian Association of Pathologists recently completed work on a national set of pathology exit competencies, which will be discussed at the next CAP annual meeting in July. These will also be discussed within the UBC Faculty of Medicine. If UBC agrees with the implementation of these exit competencies, the Department of Pathology will have a foothold in the clerkship curriculum: not core clinical status, perhaps, but something akin to a core theme which other rotations would be obliged to address.

Standards Council of Canada
Conseil canadien des normes

Dr. Michael Noble has been appointed for a three year term to the Standards Council of Canada Advisory Panel on Standards (APS). Dr. Noble will sit as the representative for Health/ Medicine.

THIS NEW SENIOR ADVISORY PANEL HAS THE MANDATE:

- Provide oversight which safeguards the impartiality of SCC's standards programs;
- Provide advice on approaches to enhance standards involvement in standardization generally, and in alignment with Canadian priority sectors;
- Review and advise on applicable SCC program documents and/or amendments;
- Provide perspective and advice to Standards Branch on matters pertaining to initiating, promoting and recognizing standards programs and tools;
- Identify and develop strategies to enhance government and industry stakeholder engagement in national, regional and international standards activities.
- Identify existing or emerging standards issues, challenges and solutions related to public policy concerns and expectations, and provide advice on priorities for national programs.

VIHA DEPARTMENT OF LABORATORY MEDICINE

DR. GORDON HOAG

The department of pathology and medical genetics has provided an educational experience for family practice interns for many years. Since the expansion of the UBC Medical School program to include the Island Medical Program, the educational role of the department has a greater emphasis and supports the expectations of a teaching institution. The faculty support the undergraduate teaching programs in the disciplines related to specific teaching blocks and problem-based learning. There is an increased interest in pathology teaching as regular rotations occur through all the disciplines with opportunities for specialized instruction in all disciplines. More recently, the department has found many undergraduate students and residents are seeking opportunities for an elective in pathology. The contact fosters an enduring relationship during the training years and is believed to influence career decisions into pathology and community-based laboratory medicine. Anatomic pathology, hematopathology and microbiology residents from BC and other provinces have benefited from an experience where the roles, responsibilities, activities and processes of an integrated network of facilities within the health authority have a common service delivery model.

> *"Tele-pathology has been deployed to determine whether diagnostic capabilities are available through static images and streaming video. In recognition of these efforts in anatomic pathology, the department was a recipient of a provincial* ***Apple Award in 2010****.*

Dr. John Galbraith - Medical Microbiology

TELEPATHOLOGY

Telepathology has been deployed to determine whether diagnostic capabilities are available through static images and streaming video. In recognition of these efforts in anatomic pathology, the department was a recipient of a provincial Apple Award in 2010. Static digital images of peripheral blood films have been deployed for several years in hematopathology after validation of diagnostic quality. Also, the remote site diagnostic imaging analysis utilizing the Cellavision has been validated for hematology consultation. Previously, it had been utilized as a validation application for technologists and now enhanced means for providing care.

THE PHILIP CLEMENT GYNECOLOGICAL SLIDE COLLECTION

The Philip Clement gynecological slide collection, under the custodianship of Dr. Irving, has been an excellent resource for students and residents. In early 2008, the entire Consultation slide collection was re-located to the office of Dr. Julie Irving. The Clement Consultation collection comprises close to 4500 cases referred to Dr. Clement over his long and illustrious career as a world expert in the field of Gynecological Pathology, and is supplemented by his personal slide collection of several thousand interesting, unusual, and illustrative cases obtained through his many years of practice at the Vancouver General Hospital. This collection is an outstanding resource for trainees and practicing pathologists wishing to enhance their knowledge and expertise in Gynecological Pathology. Since the establishment of the collection at the Royal Jubilee Hospital, at least seven International and Canadian pathology residents and pathologists have visited the department for the purpose of reviewing the collection.

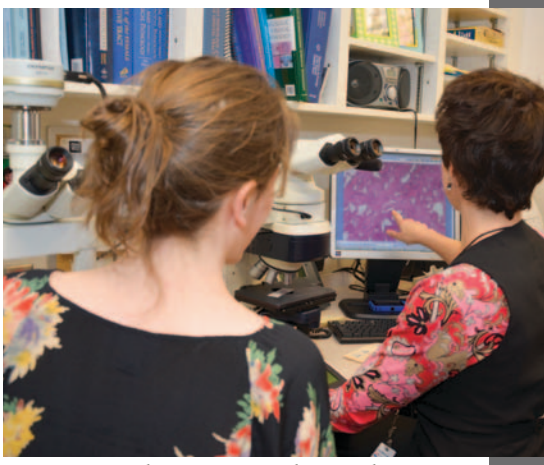
THE CAP SYNOPTIC REPORTING

The CAP synoptic reporting for anatomic pathology was purchased for use in the department. It is embedded into the CoPath module which integrates with our HIS platform. The reporting system retains all of the mandatory reporting items and selected non-essential items. As the synoptic reporting has been in place for many years, it has provided an opportunity for a UVIC Master of Science student to assess the satisfaction from both a user and provider perspective. Dr. Blake Gilks is a co-sponsor of the project.

REMOTE AND RURAL COMMUNITIES

The department has many issues with regards to servicing remote and rural communities. We have piloted an initiative that looks at point of care testing, diabetic recall and case finding of peripheral vascular disease as a means to support communities in need of basic services. These efforts have led to several presentations at national and international forums.

There have been some transitions in scope of practice pertaining to allied health care professionals. The department has developed and piloted a framework to determine roles and responsibilities. The tool is based on the patient experience



Dr Julie Irving with Resident

with identification of several elements including qualifications, training, device evaluation, competency and quality improvement.

There has been a provincial initiative to look at teledermatology through the Shared Care committee of the BCMA. This is an opportunity to improve accessibility to specialist direction within 48-72 hours. Dr. Alexander Finn has been invited to support the dermatologists. This supports a personal interest in supporting new modalities to deliver improved patient care and enhance the provider experience.

INTEGRATION OF OUR LABORATORY SERVICES AND OUR ACADEMIC INTERESTS

There are three specific initiatives which reflect the integration of our laboratory services and our academic interests.

The first of these is an international collaborative for the epidemiologic study and surveillance of blood stream infections.

Blood stream infections (BSIs) are a major cause of cause of human suffering and death. Surveillance of BSI is important for measuring and monitoring the burden of disease, evaluating risk factors for acquisition, monitoring temporal trends in occurence and identifying emerging and reemerging infections with changing severity. VIHA is part of an international collaborative led by Dr. Kevin Laupland at the University of Calgary to study BSIs. A formal protocol has been developed between seven regions on three continents including: VIHA, Calgary Alberta, Sherbrooke Quebec, Canberra Region Australia, Finland, the North Denmark Region, Denmark and the Capital Region of Denmark.

An intial paper explaining the rationale and protocol for this collaborative was published in July 2009. Epidemiologic data from VIHA patients with *Salmonella* bacteremia was included in a paper published in 2010. Similar data from VIHA patients with *Haemophilus influenzae* bacteremia was included in a paper published in 2011. More recently, data from VIHA patients with *Staphylococcus aureus* bacteremia has been extracted and a collaborative paper including this data has been submitted for publication. Two other papers, "*Population - based assessment of the burden of community onset bloodstream infection in Victoria, Canada*" and "*Community-onset bloodstream infection during 'after hours' is not associated with an increased risk for death*" using Victoria specific data have also recently been accepted for publication. These studies have been retrospective and have laid the ground work for an ongoing surveillance database.

Further evaluation utilizing the same study methods with other microorganisms of relevance in blood stream infections is underway. Work is also ongoing in collaboration with VIHA's Population Health Assessment and Epidemiology group using linked administrative and laboratory data in order to quickly and efficiently classify blood stream infections with the ultimate goal of developing an electronic surveillance system for monitoring of blood stream infections in realtime.

Secondly, the putative role of an inflammatory marker in supporting patient care with pneumonia and sepsis has emerged. Procalcitonin (PCT) is a precursor of calcitonin and in normal conditions is produced in the C-cells of the thyroid with serum PCT levels below 0.1 ng/mL. In the setting of bacterial sepsis, PCT is produced by a wide variety of human cell types and serum levels increase rapidly with levels 10-10,000 times higher than normal. Numerous studies have demonstrated the diagnostic efficacy of PCT in bacterial infections including sepsis and respiratory tract infections. VIHA has been piloting PCT testing since 2010 with use primarily in ER, the ICUs and the general medical and pediatric wards. Algorithms for when to start and when to stop antibiotics using PCT have been progressively refined. In general, PCT is not used to decide when to initiate antibiotic therapy in acute settings where any delay in beginning therapy would be harmful to the patient (e.g., sepsis). However, serial PCT measurements are useful in helping to decide when to discontinue therapy. Using serial PCT as a guide, patients with bacterial sepsis have been safely treated with antibiotics for as short as five days versus the previous duration of 10-14 days. This work was presented in 2010.

The turn-around-time from collection to reporting of PCT at the Victoria General and Royal Jubilee Hospitals is currently less than 60 minutes. In less acute settings (e.g., bronchitis), clinicians may await the result of PCT testing before deciding if antibiotic therapy is indicated. This results in fewer patients being prescribed antibiotics. PCT is normally elevated on the first day after major surgery but then declines. Further evaluation in surgical patients to see if PCT can reduce antibiotic exposure in this group of patients is also ongoing. The data to support PCT as a valuable test in the optimal management of patients remains with known or suspected bacterial infection.

Thirdly, there are several system-wide initiatives and these have accentuated an opportunity for VIHA to tackle antibiotic resistance. With increasing recognition that antibiotic resistance is a serious and growing public health problem, and that very few antibiotics are in development, Canadians are realizing the need for organized action. Several provincial governments including BC's have identified the issue as a priority and VIHA has responded. A new Antimicrobial Stewardship Program is being developed as a joint effort of

the Quality, Research, and Safety and Laboratory Medicine portfolios and will be medically directed by Dr. Jim Hutchinson a medical microbiologist, who recently joined VIHA and the UBC faculty of Medicine after developing a similar program in St. John's, Newfoundland.

Dr. Hutchinson (See *http://infectionnet.org/about*) has been very active in national and international circles promoting Antimicrobial Stewardship and was the president of the Canadian Committee on Antibiotic Resistance, founding chair of the Association of Medical Microbiology and Infectious Diseases Antimicrobial Stewardship committee and currently is co-chair of the International Society for Chemotherapy's Antimicrobial Stewardship working group. See *http://inventory.infectionnet.org*.

With the unconditional support of VIHA's administration, it is envisioned that Vancouver Island will quickly become a leader in Antimicrobial Stewardship and will provide an excellent training ground for the many young Canadians that will be needed to manage the permanent problem of antibiotic resistance. As faculty members outside of the Lower Mainland, we have certainly appreciated the opportunity to dialogue with Dr. Mike Allard, Dr. Jason Ford and Dr. Mike Nimmo. Their most recent visit in January 2012 reaffirmed the attributes of a regular dialogue.

All divisions have presented abstracts and submitted manuscripts to peer-reviewed journals, an expectation of our academic environment today.

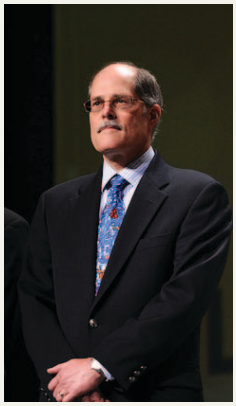
EXPERIMENTAL MEDICINE PROGRAM DEPARTMENT OF MEDICINE THE UNIVERSITY OF BRITISH COLUMBIA

Every year, The Experimental Medicine Graduate Program sends letters of acknowledgement to all faculty members who have helped guide their students through their studies. Currently the Experimental Medicine Program has approximately 200 students in the PhD, MSc and MD/PhD program and 26 students graduated this year. The following Dept of Pathology & Laboratory Medicine faculty members were acknowledge and recognized for helping guide the Experimental Medicine Graduate students through their studies:

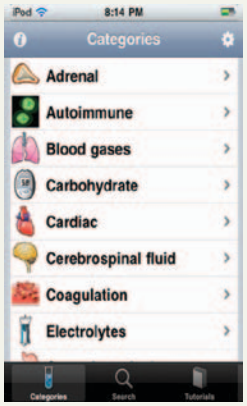
Dr. Gregory Bondy
Dr. Cedric Carter
Dr. Hélène Côté
Dr. David Granville
Dr. James Hogg
Dr. David Huntsman
Dr. Aly Karsan
Dr. Gerald Krystal
Dr. Ian MacKenzie
Dr. Andrew Minchinton
Dr. Haydn Pritchard
Dr. Edward Pryzdial
Dr. Jacqueline Quandt
Dr. Chun Seow
Dr. Christopher Sherlock
Dr. Fumio Takei
Dr. Bruce Verchere
Dr. David Walker
Dr. Andrew Weng
Dr. Cheryl Wright
Dr. Colby Zaph
Dr. Hermann Ziltener

LAB TESTS ON YOUR IPHONE

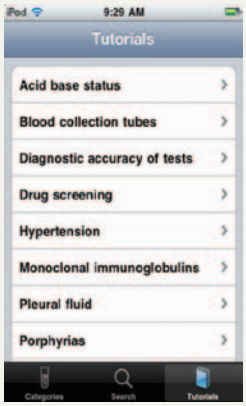
DR. WES SCHREIBER



WILLIAM E. SCHREIBER, MD



OPENING SCREEN - CATEGORIES



LIST OF TUTORIALS

What is LabDx?

LabDx is a program for mobile devices that displays information on more than 200 laboratory tests. Each test entry contains a reference range, causes for increased and decreased values, a brief description of the test, and a link to the corresponding web page of Lab Tests Online. There is also a place for the user to add notes for each test.

Tests are divided into 27 categories, based on organ system or type of analyte - they can be searched by category or alphabetically. Lab values are given in both SI and conventional units, so that values from American sources can be quickly translated into their SI equivalent. In addition to individual tests, there are 18 tutorials. These are designed as a quick review of essential knowledge or concepts in a specific area. Many of the tutorials are condensed versions of material from my lecture handouts.

Where did you get the idea for it?

In 2003 Jim Dimmick, who was the department head, asked me how to get laboratory medicine teaching into the 3rd and 4th years of the medical school curriculum. Our department has no required courses during those two years, and only a fraction of medical students take pathology or lab medicine electives. Given the already tight schedule of clerkships, I did not see our department getting any additional curricular time.

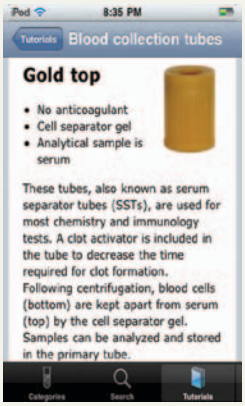
Handheld computers were just becoming popular. That is when the light went on: we needed to produce a program that covers key tests and concepts in lab medicine, which students can take wherever they go.

What happened next?

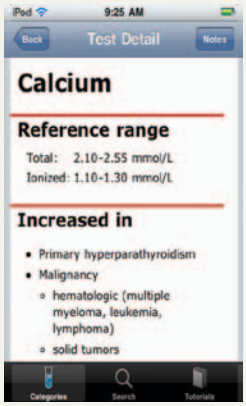
We developed a prototype for the Palm and Pocket PC platforms. With support from the Teaching and Learning Enhancement Fund, we made the program available to 3rd year students on the 8-week Medicine clerkship during the 2005-2006 academic year. About 80% of the 3rd year class participated in the project.

Key findings of this year-long study were that (1) all students found the program useful, (2) they accessed it more often during patient care activities than as a study aid, and (3) they considered the program a better way to learn about lab tests than formal teaching sessions. A description of the project was published in the March, 2008 issue of the American Journal of Clinical Pathology.

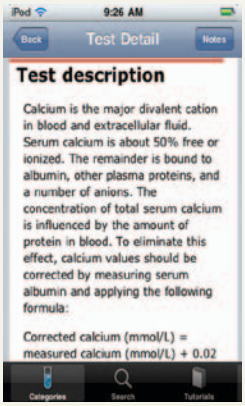
A QUESTION AND ANSWER SESSION WITH DR. WES SCHREIBER, WHO DEVELOPED A MOBILE APPLICATION TO HELP MEDICAL STUDENTS AND OTHER HEALTH PROFESSIONALS MAKE SENSE OF LABORATORY TESTS.



TUTORIAL ON BLOOD COLLECTION TUBES



TEST DETAIL - CALCIUM (1)



TEST DETAIL - CALCIUM (2)

Are you still supporting the Palm and Pocket PC versions?

Not anymore. In the past few years, those devices have been superseded by other platforms. In 2010, we updated and expanded the prototype and launched it on the app store of iTunes. The current version of LabDx is a universal app - it runs on the iPhone, iPad and iPod Touch. We have had requests to make an Android version of the app but have not done so yet.

Who is using the app?

LabDx has been downloaded more than 6000 times worldwide since it appeared on the app store. Most of the customers are from the United States and Canada, but people from Europe, Asia, Australia, Africa and the Americas have purchased the app. For some reason, there are many users in the Netherlands. Medical students, practicing physicians, nurses and lab techs have all contacted me with their comments.

Do 3rd year UBC medical students get LabDx for free?

Of course! The app was developed to improve the education of our medical students. At the beginning of the school year, we notify 3rd year students that the app is available. Interested students receive a promotional code to download the app at no cost.

How do you keep the app current?

Updates are produced once or twice a year. With each update, the number of tests and tutorials is increased, and reference ranges are reviewed to ensure that they are current. The next update (version 2.2) will be available in January, 2012.

Has LabDx been reviewed?

Yes. iMedicalapps (imedicalapps.com) is a website that publishes reviews of medical software for mobile devices. The reviewers are medical students and recent graduates from across North America. LabDx was reviewed on July 28, 2011 - you can access the review at:

http://www.imedicalapps.com/2011/07/labdx-essential-lab-test-information-healthcare-professionals/#more-13808

Purchasers of an app can rate it on the iTunes website. The average rating for LabDx is 4 stars (1 = worst, 5 = best).

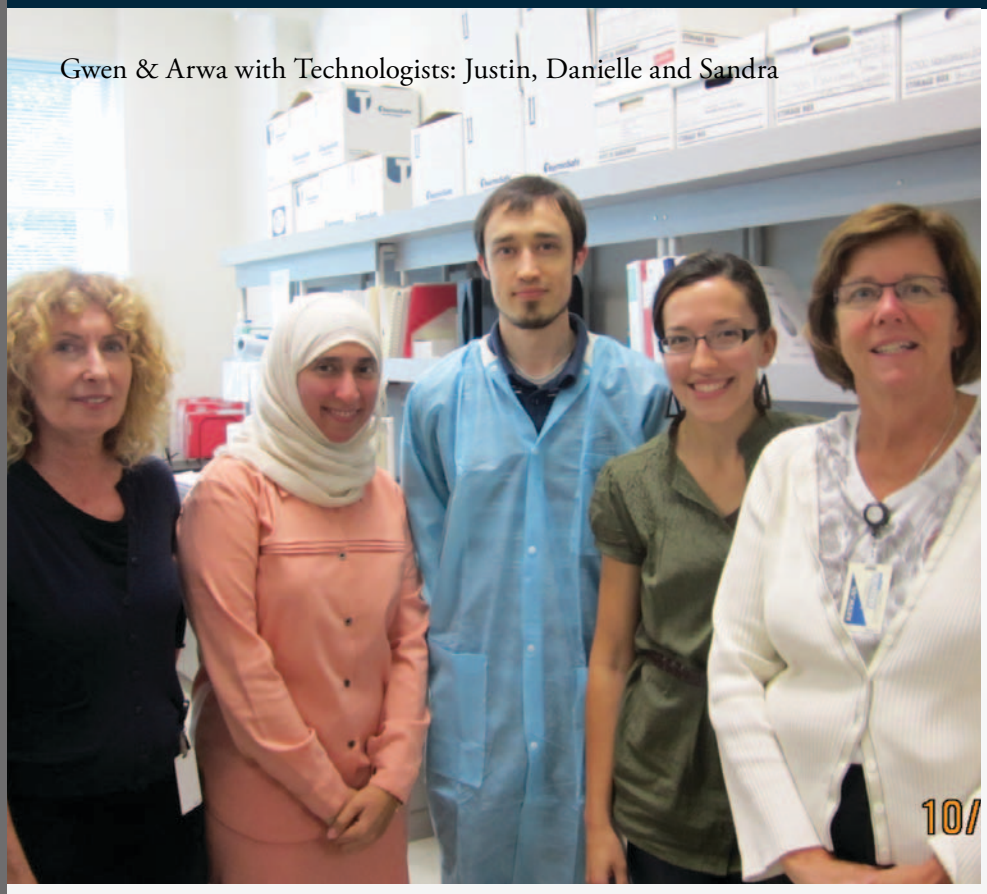
Are you planning to make more apps?

We have two apps in development, and we are interested in working with people who have ideas for new apps.

THE MIRACLE OF CORD BLOOD STEM CELLS A HEMATOPATHOLOGY RESIDENT PERSPECTIVE

DR. ARWA AL-RIYAMI

'Welcome to Lifebank!' Those were the welcoming words I received from Dr Anil Mangal, the Medical Director of Lifebank, the cryopreservation facility, located at the BCIT Campus in Burnaby, British Columbia. As the very first UBC Hematopathology Resident to spend time at the umbilical cord blood facility, I found this visit a unique experience. I had no prior exposure, but this visit stimulated my interest to learn more about cord blood stem cell uses and cryopreservation, realizing the increasing impact of cord blood as a unique source of stem cells worldwide. As I expected, I had two days full of adventure!



Gwen & Arwa with Technologists: Justin, Danielle and Sandra

Umbilical cord blood stem cells are increasingly being utilized to cure many conditions, including leukemias, bone marrow failure, metabolic and immune disorders. These cells have the capability of self renewal and regeneration, as well as quick and easy availability that make them attractive for new uses that are discovered on an on-going basis. Dr. Mangal also provided me with an overview of cord blood stem cell utilization, including the expanding uses and the emerging areas of research and developments involving regenerative medicine. The umbilical cord blood of a newborn contains a high concentration of stem cells, that makes it a valuable resource which otherwise gets discarded. The cord blood collection procedure is non-invasive and is safe for both the mother and the baby.

Lifebank is Canada's first family cord blood stem cell storage facility, which was established in 1996. To promote quality and safety during procurement, processing and storage of cord blood; Lifebank is both AABB and FACT accredited, Health Canada inspected and FDA registered. Spending time at this facility allowed me to learn all about different aspects of cord blood cryopreservations, the regulatory requirements and the standards that have to be met to ensure high quality of stored stem cells.

The Technical & Operations Director, at Lifebank, Mrs Gwen Epstein, gave me a tour of the Lifebank's, secure facility and also introduced me to the dedicated staff in the various sections. I was exposed to "pre-procurement registration / evaluation procedures," which all parents must go through from the time of registration till the time of storing the stem cells. I got to learn how parents are assessed including a medical health questionnaire to ensure eligibility for the umbilical cord blood donation. After registration and acceptance, the parents are given their collection kit that is to be used for cord blood collection at time of delivery. The kit contains the collection materials, all necessary forms, labels, collection instructions and test tubes for maternal screening. The mother is tested for all infectious disease agents that can be transmitted to the baby during pregnancy and delivery (Syphilis, HBsAg, HBcAg, HIV 1 and 2, HTLV I/II, HCV, Nucleic Acid Assay for detection of HIV, HCV and WNV, as well as Antibody to CMV and *Trypanosoma cruzi*).

Once cord stem cells are collected, the kit is returned to the Lifebank cryopreservation facility and processed within 48 hours from time of collection. Umbilical cord blood samples are fully assessed at time of receipt to determine the integrity and suitability for long term storage. Lifebank receives cord blood cells for storage from across Canada and international destinations.

This is followed by procedures for "laboratory processing" which include cord blood stem cell separation, CD34 enumeration and cell viability by flow cytometry, the mean transplantable mass (MTMs) determination and finally cryopreservation of the RBC reduced cord blood units. Cord blood stem cells are stored at Lifebank using a CryoMed freezing chamber in liquid nitrogen vapour phase at –196°C! This permits them to be stored for long periods. There is no expiration date documented for umbilical cord blood stored at this temperature. Lifebank has over 12,000 units stored.

I learned that based on various factors including parents' medical health assessment and the infectious disease testing, cord bloods can be potentially used for the same baby in the future (autologous), related family members or unrelated recipients (allogeneic). Lifebank under the guidance of its Medical and Scientific Advisory Board, whose members include UBC Faculty, experts from across Canada and internationally, administered by the Medical Director, offers a "Critical Needs Program" where BC families with history of malignancy in a child (where stem cell transplant may provide a cure), may save the subsequent cord blood stem cells for such specific use, free of charge. To date, 25 families have taken advantage of Lifebank's Critical Needs Program. Lifebank also offers cord blood samples for scientific research programs.

Despite being a short rotation, (only for 2 days), it was a great exposure to a growing field that has opened hope of cure to many patients of all ages. I also met and learned from different players who work very hard to meet parent's expectations and quality standards. I recommend this exposure to the Lifebank cryopreservation facility to all the hematopathology residents, who I am sure will enjoy the experience, as I did. There are also numerous research opportunities for residents as well.

Cord blood is stored in cryopreservation chambers

MEET THE PEOPLE OF PATH

SANDY LIU, HR MANAGER

BRIEF BIO:

I never thought that I would have a career in Human Resources. I graduated from UBC with a major in Family Studies with the intention to go into family counseling. However, reality hit when I realized that I would have to add a few years to student loan in order make a proper living in the field. So, I started researching on different areas that were on the rise in the job market while teaching piano to pay the bills. A friend of mine introduced me to the field of Human Resources and a program at the British Columbia Institute of Technology and after a week of research, I quit my full time job and went back to school.

After I obtained my Human Resource Management Certificate, I was hired as a HR consultant for an electronic manufacturing company in Hong Kong for 6 months to establish their entire Human Resources structure. In 2009 I joined UBC, working as a HR Associate in the UBC Central Human Resources Department on a leave replacement. Soon after, I obtained my designation as a Certified Human Resources Professional with the BC Human Resources Management Association and found my home in the Department of Pathology.

LITTLE KNOWN FACTS ABOUT ME:

1. I was born in Taipei, Taiwan and my family moved from the little island to Vancouver when I was 7. I am the 3rd of 4 kids with an older sister, an older brother, and a baby sister.
2. I moved to Japan for almost 2 years, teaching English to kids at a language school. I made an effort to go somewhere new every month so by the end of the 2 years, I travelled to almost everywhere in Japan from Hokkaido (top) to Okinawa (bottom).
3. I can survive on chocolate, ice cream, almond milk, and dinner rolls
4. It takes a lot for me to get angry and when I do—I get extremely quiet. My husband says when this happens, he gets a chill down his spin and that's when he runs the other way.
5. Sometimes I like to lock myself in my room, remove myself from the world, and just read for days. No phone calls and no internet—just me and my books.
6. I have a 12 year old beagle who likes to sleep under the covers with a pillow under his head.

HOW WOULD YOU DESCRIBE YOURSELF IN THREE WORDS?
Curious, determined, and an animal-lover.

WHAT'S THE HARDEST THING YOU'VE EVER DONE?
I'm not sure if "hard" is the right adjective but I am sure this is the cause of my first burst of white hair. The time when I was working 3 part-time jobs, studying full-time at UBC, and finishing my Royal Conservatory of Music Examination for piano.

AT WHAT AGE DID YOU BECOME AN ADULT?
I would like to say that I'm still a kid at heart. However, according to my mother—I was never a kid since I took my first breath.

IF YOU COULD HAVE ONLY 3 ELECTRICAL APPLIANCES IN YOUR HOUSE, WHAT WOULD THEY BE AND WHY?
1. Laptop (is that considered an appliance?): it's how I stay connected with the world, 2. Slow cooker: it's the easiest way I know how to cook, 3. Heater: I can't stand the cold!

IF YOU COULD STUDY ANYTHING YOU WANTED IN SCHOOL, WHAT WOULD YOU WANT TO LEARN MORE ABOUT?
Interior design and construction. I am fascinated with building a house from scratch and interior design. But, back in high school my dad told me that I was too petite to be a contractor and that I would starve to death if I pursued a career in interior design.

WHAT IS YOUR FAVORITE TYPE OF ART?
I don't really have a preference. But, I can tell you the type that I don't like—the ones with a black dot on a white canvas and nothing else. I don't get them.

WHAT TYPES OF FOOD DO YOU NOT EAT?
Nato and Durian—bane of my existence!! Oh, I also don't eat beef and lamb.

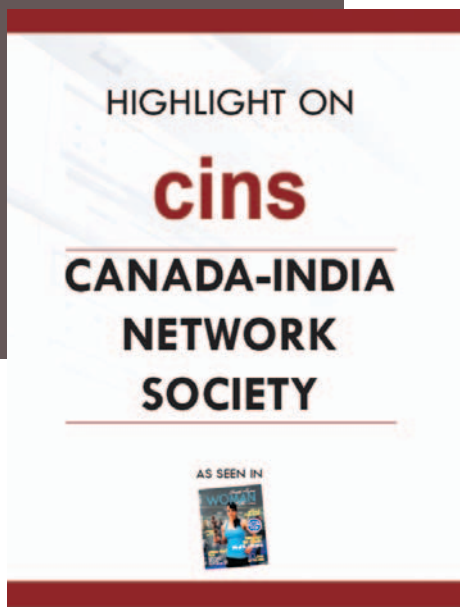
WHAT IS THE MOST ADVENTUROUS THING YOU HAVE EVER DONE?
I would say climbing Mt. Fuji. We started climbing at 10pm at night and made it to the top of the mountain around 5am for the sunrise and then it took another 5 hours to get down.

WHAT'S THE MOST IMPORTANT PART OF THE SANDWICH?
The bread—skip the lettuce and forget about the cheese and ham. Just give me CARBS!

LIST 5 GOALS ON YOUR LIFE'S TO-DO LIST:
- Travel the world and hit up the Seven Wonders of the World
- Design/renovate/build my own place. Well, I guess I have to own a house first!
- Go to the Galapagos to save some sea turtles
- Master the art of playing cello
- At the end of the road—be able to look back and be proud and content with what I have done with my life.

JANET MCMANUS, DR. ARUN KUMAR GARG, MINNIE DOWNEY AND DR. SCOTT TEBBUTT OF PROOF WITH DR. RAMA JAYASUNDAR OF AIIMS

CINS PARTICIPATION IN A SYMPOSIUM IN INDIA 2011



Dr. Garg's passion and commitment for building strong relationship between Canada and India began in 1965 when he landed in Canada. Dr. Garg's first concrete action in this regard took place five years ago when Premier Campbell established the Asia Pacific Trade Council, with co-chair Arvind Bubber. Dr. Garg felt that there were many individual efforts taken by various individuals in the area in which he held interest, but there was no platform to bring them together. As it stood, Dr. Garg knew something had to be done and out of that need, originated the concept of networking between the two countries. That's how the idea of founding a society came up and the Canada India Network Society (CINS) evolved out of it.

The Canada India Network Society is a non-profit organization created:

- To promote, collaborate and coordinate programs, workshops between people, organizations and institutes which are interested in Canadian and Indian links, both in Canada and in India.
- To support activity that enhances trade and economic development between India and Canada.
- To develop innovative programs and network opportunity to support economic, cultural and social links between Canada and India.
- To encourage and facilitate individuals and organizations to participate in Canada India Network Society activities.
- To plan, organize, and manage programs in health, education, technology, business, and economic development, in furtherance of the above points.
- To raise and distribute funds to support the above aforementioned functions.
- To enter into contracts with other businesses, individuals and organizations in order to carry out the functions and activities of the Canada India Network Society.

Canada India Network Society organized a very successful initiative on lowering the burden of chronic diseases amongst Indians both in Canada and India in 2010. Our current focus is Health, though Education and Energy is of interest. In India, CINS is facilitating projects between Postgraduate Inst. of Medical Research (Chandigarh) and PROOF BC, Public Health Foundation of India and CIT-VCC, as well as UBC and Prevent India.

A major effort is planned, with support from the Provincial Health Services Authority, to establish sustainable programs of health promotion, illness prevention, clinical capacity on South Asian health with Fraser Health which has one of largest South Asian populations in Canada (200,000).

Our contact info:

canadaindianetwork@shaw.ca

website: www.thecins.org

"Jeannie was the most troubled. Jeannie had spent at least 17 years in Biomedical research labs. Those years had taken an enormous toll."

The islands – a huge extension of the outdoor areas for the chimps, where they can feel the grass under their feet and the sky above their heads. Groups of chimps can access the various islands from the chimp house.

DR. AMANDA J BRADLEY

The first chimpanzee to look into my eyes was Jeannie. It was my first visit to the Fauna Foundation, a sanctuary outside of Montreal. I had just been told that of the thirteen chimps residing at Fauna, Jeannie was the most troubled. Jeannie had spent at least 17 years in Biomedical research labs. Those years had taken an enormous toll. It amazed me that it was Jeannie, so traumatized by her past, who was the chimp that noticed my sheepish glimpses and chose to make eye contact. Her expressions conveyed intelligence, curiosity, kindness and fatigue. From that moment, I became forever connected to Jeannie and to Fauna.

The Fauna Foundation is a chimpanzee sanctuary for retired research chimpanzees (from a lab in NY State) and for a few chimps from two Quebec zoos. Fauna is also sanctuary to a small number of other ex-research primates as well as a good number of farm animals. My partner, Jim, and I are privileged to volunteer at Fauna annually. We are treated as extended family by both the humans and non-humans of Fauna. The founder of the sanctuary, Gloria Grow, is an inspiration. Being welcomed by her and her passionately dedicated staff and family is an honour. The chimps also welcome us. During one of our first visits, I was concerned that our presence in and around the chimp house would cause the chimps anxiety. Instead, the chimps remembered us, greeting us with head-bobs.

In the chimp house, work includes all manner of food preparation. I recall Gloria asking me to prepare "enough oatmeal for 13 hungry chimps". We often create enrichment parcels for each chimp using donated toys, books, stuffed animals, art supplies, etc. We are treated to wonderful chimp-viewing while we work in the chimp house. Every visit, Jim and I learn more about different individuals and about how their relationships with each other change over time. They watch us too. I wonder what they think of us.

Sadly death has come to the Fauna family. Jeannie died in 2007. I am forever grateful to her. She drew me into this amazing place where I got to know Tom, Billy Jo, Jethro, Pepper, Sue Ellen and many of the other inspiring Fauna residents.

Please visit *www.faunafoundation.org*. Also, "The Chimps of Fauna Sanctuary" is a compelling book (written by an alumnus of UBC) and can be purchased via the Fauna website.

Handsome Jethro with the charming Pepper *(who is having a soft-drink – an infrequent treat).*

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