



Department of **UROLOGIC SCIENCES** UBC

2007 Fall Newsletter

REPORT FROM THE DEPARTMENT HEAD

As we approach the last few days of 2007, I sense an air of satisfaction throughout the department on the progress that we have made. By adopting a programmatic structure rather than the formal division structure, we have accomplished a sense of “oneness” which is important to us, whether we are in the clinic or in the laboratory. I believe that our success in clinical, research and administrative realms reflects the high quality of our members and the pervasive spirit of being a team.



Special Interest Articles:

- Profile on benefactor
Lilian Hudson.
- Profile on researcher
Dr. Michael Cox.
- Profile on new
faculty members
- Dr. Caigun Du
- Dr. Y.Z. Wang

In this issue of the Department of Urologic Sciences newsletter, we feature some very special people. **Mrs. Lilian Hudson**, and her late husband **William**, demonstrated their “belief in giving” by infusing an endowment for prostate cancer research in 1994. It was their generosity and leadership that gave a small group of clinicians and researchers an opportunity to “move the yardsticks”. In particular, their generosity gave a young clinician-scientist, Dr. Martin Gleave, the opportunity to truly ‘jumpstart’ his research dream by seeding the basic research projects that would later lead to major peer-reviewed grant funding. More recently, Mrs. Hudson has been helping us to develop our transplantation and technology research science team. Her ongoing generosity is funding the research career of Dr. Chris Nguan and his group of talented scientists and collaborators.

Individual Highlights:

Outstanding Student
Postgraduate Report
Uro-Oncology Fellow
Promotions
Upcoming Events
Visiting Professors

Dr. Michael Cox joined the Prostate Centre in 2000 and brought to us his expertise in cell signaling science that complemented the work of his teammates in exploring the molecular mechanisms of prostate cancer progression. Mike is the prototypic mentor and educator. New students, technicians, postdocs and scientists flock to Mike for guidance, ideas and supportive talk. Mike takes time for everyone and I thank him for being such a core member of the Department and working so tirelessly beyond his science mandate to develop and direct our graduate programs.

I welcome to the Department our latest additions: **Dr. Caigan Du** has joined Dr. C. Nguan’s team exploring the basic mechanism of transplant rejection in both recipient and donor factors. **Dr. YZ Wang** brings us a world renowned expertise in tumor modeling, biomarker discovery and innovative ways of screening for more effective therapeutics.

I congratulate a number of members for special achievement in this past term:



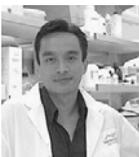
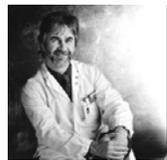
Dr. Ben Chew for his many presentations at the recent World Congress of Endourology, including the world's first randomized trial of the "Stone Breaker" device. Dr. Chew received a Michael Smith scholarship this past year, a huge achievement for someone so early in his science career.

Dr. Martin Gleave has received one of British Columbia's highest honours, The Frontiers in Research Award from the BC Innovation Council. I was very proud to be in the audience when he received this honour in a room filled with the best and brightest from British Columbia's science and technology arenas. Dr. Gleave is also a member of the landmark prostate cancer research collaboration funded recently by Safeway USA and the Prostate Cancer Foundation. He joins collaborators from Johns Hopkins and the University of Michigan in a \$6.5 million award which will fuse the skills of these centres to develop cell specific heat therapy.



Dr. Lynn Stothers continues to expand her research successes with grant funding and international recognition in the fields of NIRS and cranberry science. She recently co-directed, with Dr. Griffiths, an international certification course in urodynamics at The Bladder Care Centre which included urologists from the US, Philippines, Korea and China.

Dr. Paul Rennie was honoured by being elected as a member of the Canadian Academy of Health Sciences, in recognition of his lifetime achievement.



Dr. Chris Ong became a Michael Smith Senior Scholar. His research on the PTEN tumour model and his expertise in the field of transgenic models is not only integral to his work, but to that of "the team".

The generosity of many donors, led by Mr. Jack Poole and Mr. Jim Pattison, resulted in the arrival of "Jack the Robot" and the development of a program which includes prostate and renal surgery. On October 30th, we performed the first robotic assisted laparoscopic radical prostatectomy in B.C. As we all climb the learning curve, this technology will give us the credibility to become key players in robotic and technologic research. **Dr. Chris Nguan** has planted the seed of world class technology experimentation and robotic science by collaborating with members of many faculties and departments across VCH, UBC and SFU.

So, let's all be proud of the many accomplishments arising from our small but strong critical mass of team players. I wish everyone the very best of the season and a healthy, happy and successful 2008.



Benefactor Profile – Mrs. Lilian Hudson



In 1993, William and Lilian Hudson were inspired by their personal experience to establish The William and Lilian Hudson Endowment Fund for Prostate Cancer Research. Their gift provides an annual income in perpetuity to support prostate cancer research at VGH. Through their generosity and vision, the Hudsons have helped to support groundbreaking research in prostate cancer treatment and prevention, and to offer hope to thousands of men and their families touched by this illness.

Mrs. Hudson has also taken an interest in the work of Dr. Chris Nguan, supporting his research in transplantation and technology development. Her spirit of giving is done with humility and sincerity, as she carries on the philanthropy which she and Bill began so many years ago.

Department of Urologic Sciences Mission

To achieve and maintain excellence in urologic patient care, research and teaching.

Our Goals

The Department of Urologic Sciences will strive to:

- ***Provide state of the art, evidence-based healthcare delivery to the regional, provincial, national and international communities through an integrated, interprofessional team.***
- ***Support and strengthen the pillars of UBC's vision: people, learning, community service, research internationalization.***
- ***Provide a provincial hub for health research and education and policy making; focus on health as well as illness.***
- ***Identify, design, conduct, analyze and report research relevant to the diseases of the genitourinary tract (prostate, kidneys, bladder, genitals).***
- ***Translate basic sciences research evidence directly to clinical research and eventually improve clinical care, elevating these functions to an internationally superior level.***
- ***Implement multidisciplinary and transdisciplinary partnerships within UBC, other universities, hospitals and all levels of government, to facilitate the mission.***
- ***Become a sought-after destination for clinical and research trainees and scientists committed to the study and management of genitourinary diseases.***
- ***Provide comprehensive undergraduate, graduate, postgraduate and continuing health education.***
- ***Strengthen the entire Faculty of Medicine through its overall mission.***

Faculty Profile – Dr. Michael Cox



Prostate cancer is the most frequently diagnosed malignancy and the third leading cause of cancer-related deaths in men. Advanced prostate cancer is often treated with androgen withdrawal therapy, which blocks the growth-promoting effects of androgens (such as testosterone). Unfortunately, the cancer eventually progresses to an androgen independent state, allowing for tumour growth without androgens.

There is currently no curative therapy for men with this disease condition.

Dr. Michael Cox and his research team are making important discoveries about how prostate cancer cells adapt to androgen deprivation and using that information to find ways of halting androgen independent progression of disease. Dr. Cox's research, funded by the Terry Fox Foundation, National Cancer Institute of Canada, the Vancouver Coastal Health Authority Hospital Foundation, the Michael Smith Foundation for Health Research and the British Columbia Foundation for Prostate Disease, investigates how prostate tumors adapt to testosterone deprivation therapy.

Dr. Cox is working to determine the molecular mechanisms by which prostate tumor cells develop genetic mutations and become less susceptible to cancer treatment. Currently, he is identifying how tumor cells respond to growth factors in the presence or absence of testosterone and the cellular changes that allow prostate tumor cells to utilize these growth factors to aid development of testosterone independence. His research is describing how tumors adapt to increase their ability to use another hormonal growth factor, insulin-like growth factor (IGF). In conjunction with Dr. Martin Gleave at UBC, he has also developed an antisense oligonucleotides drug strategy that decreases the responsiveness of tumor cells to IGF and has shown that prostate cancer cells treated in this way are more sensitive to testosterone deprivation or treatment with other chemotherapies. He has described how a compound found in tomatoes and watermelon called lycopene can decrease the growth and survival of prostate cancer cells by affecting IGF signals. Dr. Cox is also studying how prostate tumor cells with neuroendocrine characteristics contribute to the disease's progression to androgen independence. His research aims to understand how these cells develop within prostate tumors, what effect such cells have on the growth rate of prostate tumors, and how hormones secreted by these cells influence therapeutic resistance and metastatic preferences during disease progression. Out of these studies has come the observation that certain prostate cancer cells produce an IGF-related hormone, Relaxin and further studies into its role in cancer progression. These studies strongly suggest that therapies targeting the IGF hormone system will be effective in treating advanced prostate cancer.

New Faculty Profile – Dr. Caigan Du



We are pleased to announce the recruitment of Dr. Caigan Du. Dr. Du received his B.Sc. in Biology from Jiangxi University, China in 1984 and subsequently completed his M.Phil. (in Biological Sciences) in 1990 and his Ph.D. (in Biochemistry) in 1995 at the University of Wales at Swansea in the U.K. He undertook postdoctoral training in Immunology at Vanderbilt University in the U.S. Dr. Du spent five years as an Assistant Professor of Medicine, Immunology and Microbiology at the University of Western Ontario before taking up his current appointment as Assistant Professor in the Department of Urologic Sciences.

Dr. Du is a research scientist who has published mainly in the area of Immunology and Kidney Transplantation; he has over 30 peer-viewed publications in his research area. He is an active member of the Canadian Society of Transplantation, American Society of Transplantation and American Association of Immunologist. His current research area is Kidney Transplantation with special emphasis on donor factors in the graft rejection. His research is currently supported by The Kidney Foundation of Canada. Dr. Du is a key component of the Department of Urologic Sciences' strategic plan to establish a Renal Transplantation Research group.



New Faculty Profile – Dr. Yuzhuo Wang



We are pleased to announce the recruitment of Dr. Yuzhuo Wang. Dr. Wang holds appointment as a Senior Scientist at the Prostate Centre at VGH and the BC Cancer Agency. Dr. Wang received his BSc and MSc in Biology from the Nankai University (China), and obtained his Ph.D. in 1997 from the University of Hong Kong. Dr. Wang completed his postdoctoral fellow training with Dr. Gerald R. Cunha at the University of California, San Francisco in 2000. In 2001 he joined the Department of Cancer Endocrinology at the BC Cancer Agency as a Research Scientist, and was promoted to Senior Scientist in 2002.

He was recently recruited to the Department of Urologic Sciences at the rank of Assistant Professor and as a Senior Scientist to the Prostate Centre to apply his expertise in the development of transplantable tumor lines from patients' cancer specimens. Xenografts of such prostate cancer-derived tumors in immuno-deficient mice provide novel, substantially improved models for prostate cancer that can be used for (i) identification of genes and gene products that can serve as biomarkers of metastatic disease and/or new therapeutic targets, and (ii) drug efficacy assay systems in the development of new drugs.

Dr. Wang's long term objectives are to identify new biomarkers for the diagnosis and prognosis of prostate cancer and to develop improved and novel therapies for this disease.

His major contributions in cancer include the development of a novel method for establishing xenografts of human cancer tissue (e.g. cancers of the prostate, ovary, lung, pancreas, skin and kidney) in SCID mice with a high success rate. So far his group has developed over 100 transplantable tumor tissue lines that closely resemble patients' malignancies in terms of histopathology, genetic profiles and drug sensitivities. His current research focuses on applications of such human cancer xenograft models for: (i) discovery and validation of potential biomarkers and/or therapeutic targets, (ii) preclinical drug efficacy studies in anti-cancer therapeutics development, and (iii) personalized cancer therapy.

Postgraduate Education Report

The UBC Urology residency continues to go from strength to strength. Earlier this year our program was pleased to receive full approval status from external reviewers representing the Royal College of Physicians and surgeons of Canada.



We bid a fond farewell to our three graduating residents after their successful completion of the Royal College certifying examinations in June 2007. All three graduates were fortunate to obtain highly sought after fellowship training positions:

Dr. Jennifer Mickelson is now at Northwestern University, Chicago Illinois pursuing a two-year Pediatric Urology fellowship. Jennie will be completing her Master of Health Professions Education (MHPE) degree concurrently.

Dr. Jeff McCracken has embarked upon a one-year clinical fellowship in minimally invasive and robotic surgery at the Swedish Medical Centre, Seattle Washington.

Dr. Mike Eng is pursuing minimally invasive surgery and robotics at the University of Chicago, followed by an additional fellowship in renal transplantation at UCLA. We are all extremely proud of their achievements and wish them great success in their adventures to come. Come back soon, we need you!

The life-cycle of residency continued with the appointment of three bright-eyed and bushy-tailed first year residents this July. We were fortunate to match three highly prized students in the CaRMS competition:



Dinesh Samarasekera, a mechanical engineer from Queen's University, and a graduate of the UBC MD program joined us for five years of fun. Dinesh was also the recipient of the Harold Chamber prize in Urology for outstanding performance in final year Urology.

Brian Mayson, a former member and MVP of Team Canada national men's fastball team, and also a graduate of the UBC undergraduate and MD programs joined us as well. He did so just in time for the birth of his daughter Téa on October 13. Congratulations to Brian and his wife Tanja.



Jason Sea returned to the West coast from Calgary. Jason completed his undergraduate degree in biochemistry and microbiology at the University of Victoria. Prior to completing his MD at the University of Calgary, he distinguished himself in Montreal as a researcher in the field of proteomics.

We anticipate great things from these three stars.

Uro-Oncology Fellow – Dr. Jeremy Grummet

We welcome Dr. Jeremy Grummet, our Clinical Uro-Oncology and Robotic Urology Fellow at the Prostate Centre at VGH under the supervision of Dr. Martin Gleave.

Jeremy was born and bred in Melbourne, Australia. He graduated from the University of Melbourne Medical School (MBBS) in 1996. In the midst of his years of urology residency in Australia, he was Senior Tutor in Anatomy at the University of Melbourne, and Lecturer in Anatomy at Stanford University, California. He obtained a Master of Surgery degree (MS) in 2004 for his thesis on Novel Techniques for Vesicourethral Anastomosis in Radical Prostatectomy. He completed his residency in urology in January 2007 (FRACS). He is on a year's leave of absence from his position as Consultant Urologist at the Alfred Hospital, a major teaching hospital in Melbourne.



Jeremy arrived in Vancouver in summer with his wife and three young daughters; the family is enjoying exploring beautiful BC. Jeremy is enjoying furthering his clinical experience and maximising his many learning opportunities here as he progresses through this Fellowship year.

Jeremy will return to Melbourne as an academic uro-oncologist at the Alfred Hospital and aims to be proficient in robotic radical prostatectomy, as well as open uro-oncologic surgery.

Outstanding Student – Jed Shimizu

After growing up in Vancouver, Jed attended UBC where he completed an undergraduate degree in Biochemistry. This was followed by a Masters in Biochemistry and Molecular Biology working with Dr. LeAnn Howe in the Molecular Epigenetics group of UBC's Life Sciences Institute. This past summer, after his first year of studying Medicine at UBC, Jed worked with Dr. Masterson along with numerous other students, residents, and faculty in building a library of online Urological Cases for both undergraduate and postgraduate Medical education.



After his first year in UBC's Medical program, Jed was introduced to the exciting opportunities in the Urological Sciences by current third year medical student Chris Zappavigna. During this summer, Jed began his work in the field of Urology creating several online Urological PBL Cases. With the help of many faculty and residents, notably Dr. Goldenberg and Dr. Afshar, these cases covered numerous Urological topics such as Prostate Cancer Screening and the Management of Priapism.

Currently, Jed is working with Dr. Masterson and other students on presentations outlining their work developing Online Problem Based Cases for both the UBC MUS Research Forum and a medical student conference in Carmel, California. Jed is looking forward to continuing his research in the Urological Sciences and further exposure to the field with his Mentor Group Leader Dr. Chris Nguan.

Clinical Promotions, July 1/07

Dr. Ercole Leone, Clinical Associate Professor
Dr. Peter Pommerville, Clinical Associate Professor
Dr. Gary Steinhoff, Clinical Associate Professor

Upcoming Events

“Get to Know Urology” Day for UBC 2nd year medical students, February 9, 2008.
UBC Faculty of Medicine Annual Awards Reception, Tuesday, April 29, 2008.
Lorne Sullivan Urology Research Day, June 10, 2008, Paetzold Auditorium, VGH.
Urology Wind-up Dinner, June 10, 2008, Shaughnessy Golf & Country Club.
Canadian Urological Association, June 22-26, 2008, Edmonton, Alberta.

Visiting Professors 2007-2008 Academic Year

Dr. Wayne Hellstrom, Tulane University, New Orleans, Louisiana, July 8-11, 2007.
Dr. Ramon Perez-Marrero, Criterion Research Inc, Florida, October 16-17, 2007.
Dr. Philippe Van Kerrebroeck, University of Maastricht, The Netherlands, October 23-24, 2007.
Dr. John Trachtenberg, University of Toronto, Ontario, November 21-23, 2007.
Dr. Peter Grimm, Seattle Prostate Institute, Washington, February 6, 2008.
Dr. Peter C. Albertsen, University of Connecticut, February 23-24, 2008.
Dr. Peter Anderson, Dalhousie University, March 25-26, 2008.
Dr. Ralph W. de Vere White, UC Davis Cancer Center, California, April 30, 2008.
Dr. Inderbir S. Gill, Center for Advanced Study Glickman Urological Institute, June 9-10, 2008.

Urology Wind-up Event, June 12, 2007 at the Shaughnessy Golf and Country Club



Dr. Goldenberg, Dr. Jennie Mickelson, Dr. Mike Eng, Dr. MacNeily, Dr. Jeff McCracken and Dean of Medicine, Dr. Gavin Stuart



Dr. MacNeily, Dr. Goldenberg, and Visiting Professor, Dr. Pippi Salle



Emeritus Faculty,
Doctors Perler, Ankenman, Johnson, Coleman, Sullivan, Sutton



Department of Urologic Sciences Faculty and Residents



Dr. Chris Hoag, Winner - Best Overall Research Paper & Dr. Gleave



Dr. Jennie Mickelson, Winner - Pediatric Prize,
Doctors Coleman & Johnson (prize benefactors)

Please send your comments or suggestions regarding the newsletter to:
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