# **QUEEN'S UNIVERSITY DEPARTMENT OF PATHOLOGY**



# FACULTY OF MEDICINE ANNUAL REPORT 1999

**DR. PAUL MANLEY, M.D. - CHAIRMAN** 

# DEPARTMENT OF PATHOLOGY 1999 ANNUAL REPORT

#### TABLE OF CONTENTS

#### Introduction

Faculty, Administration and Laboratory Managers and Supervisors

Laboratory Medicine and Pathology

Clinical Laboratories of Eastern Ontario (CLEO)

Personnel, Awards and Significant Events

Undergraduate, Graduate and Postgraduate Educational Programs

Research Projects and Grants in Progress

Department of Pathology Visiting Lecturers

Senior Staff Department of Pathology and Queen's University Lectures

Senior Staff Department of Pathology Invited Lectures Outside of Kingston

Senior Staff Committees

Editorial Boards and Grant Review Committees

Full Papers Published and in Press

Abstracts

(Report written April 2000)

FACULTY, ADMINISTRATION AND LABORATORY MANAGERS AND SUPERVISORS

# DEPARTMENT OF PATHOLOGY FACULTY

### 1999-00

PROFESSOR AND HEAD	Dr. Paul Manley
PROFESSORS	Dr. A.F. Clark* Dr. S. Cole Dr. R. Deeley Dr. G. Delisle* (Retired June 30, 1999) Dr. B. Elliott (On sabbatical July 1, 1999-June 30, 2000) Dr. J.C. Kennedy* Dr. J.C. Kennedy* Dr. R. Kisilevsky Dr. D. Lillicrap Dr. S. Ludwin (On sabbatical Sept. 1, 1999-August 31, 2000) Dr. P.G. Young*
ASSOCIATE PROFESSORS	Dr. B. Campling* (Retired June 30, 1999) Dr. D. Dexter Dr. W.A. Fletcher Dr. S. Ford Dr. P. Greer Dr. M. Khalifa* Dr. D. Maurice Dr. C. Mueller* Dr. L. Mulligan* Dr. L. Mulligan* Dr. L. Raptis* Dr. S. SenGupta Dr. L. Shepherd Dr. S. Taylor Dr. L. Tomalty* Dr. S. Wasan (Retired September 30, 1999) Dr. I. Young Dr. D. Zoutman
ASSISTANT PROFESSORS	Dr. A.S. Boag Dr. C. Collier Dr. S. Davey* Dr. G. Evans* Dr. K. Harrison Dr. D. Hurlbut

### **ASSISTANT PROFESSORS**

(cont'd)

Dr. D. LeBrun Dr. D. Lee\* Dr. D. Rapson (0.5 part-time) Dr. M. Raymond Dr. J. Rossiter Dr. C. Rowlands

#### LECTURER

Dr. J. Raymond

### ADJUNCT ACADEMIC GROUP I

Dr. L. Becker Dr. S. Birse Dr. A. Duncan Dr. M. Gaber Dr. D. Haust Dr. S. Inoue Dr. T. Karnauchow Mr. L. Kennedy Dr. A. Lagarde Mr. D. Piper Dr. D.M. Robertson, Emeritus Dr. J. Samis Dr. G. Twemlow

#### ADMINISTRATION

Laboratory Manager Administrative Assistant Mr. David PiperMrs. Marg McIlroy

# LABORATORY MANAGERS AND SUPERVISORS

Anatomic Pathology
Chemistry
Cytogenetics
Microbiology

Mr. Dave More
Mrs. Mary Waugh
Ms. Anne Hanley
Ms. Linda Fidler

CLEO

- Mr. Dave More

\*Cross-Appointed Staff

LABORATORY MEDICINE AND PATHOLOGY

#### **INTRODUCTION & EXECUTIVE SUMMARY**

Pathology as a discipline bridges the interface between basic medical science and clinical practice.

Therefore the role of the Queen's Department of Pathology is distinctive at the Medical School; while playing a major role in the educational and research aspects of the school, it functions as both a basic science and a clinical department; and is also responsible for one of the most technically and administratively complex service departments in the affiliated hospitals.

The Department has achieved excellence in many areas of its mandate, by building on a policy of commitment to academic excellence, taking into consideration the unique features offered by the local Queen's and regional environments. Of great importance has been the establishment of a common set of values throughout the Department, in which mutual respect for excellence in all of the various aspects of Departmental work has been achieved among its members, and in which there has been little internal dissension about the need to mutually support the various diverse endeavours of the Department. In these endeavours, the strategic plan of the Department, and its vision are remarkably consonant with the recently articulated Faculty Vision Statement.

The educational aspects of the Department have traditionally been very strong. The Pathology Department is unique in that it offers a complete range of educational facilities, from Undergraduate Medical, Undergraduate Life Sciences and Graduate Studies, to Postgraduate Resident levels. The evolution of teaching to Undergraduate Medical students has progressed from the delivery of traditional courses in General and Special Pathology under the old curriculum, to the integrated teaching of the new curriculum, a process still in progress, but one which has been readily embraced by the Department, which has shown a willingness to take a leadership role in the process. The Undergraduate Life Science programme has progressively expanded at Queen's, and concurrent with this, the enrolment in courses given by the Pathology Department has steadily increased. The Pathology Department is actively pursuing, together with other Basic Science departments, methods of collaborative teaching in this important programme. The Department's Graduate Studies programme has increased dramatically since its inception, with a major increase in a number of Graduate students, including progressively more PhD students, studying and doing research within the Department.

Traditionally, residency training in the Department has been very strong, with 4 programmes recently re-accredited by the Royal College of Physicians of Canada, being offered. Queen's graduates have had a remarkably high rate of success in examinations in these programmes, and have gone on to take jobs in both the Academic and the Non-University sectors. The General Pathology training programme for years has been considered one of the best of its kind in the country, and the Neuropathology training programme has attracted applicants from around the world, who have then gone on to important academic positions in the country. The Pathology training programme like those all around the country faces tremendous challenges due to the restrictions on positions and entry imposed by the Provincial governments.

Since the 1950's, the Department, starting under the Headship of Dr. Robert More, has developed into an extremely strong academic unit. Although the Department is of relatively small size, in concert with the size of Queen's Medical School and the affiliated hospitals, (see comparatives for some figures) it has achieved a level of academic excellence, far in excess of that expected for its numbers. The Department attracts external funding of approximately \$3.6 million annually, in competitive grants, a figure among the highest in the Medical School in absolute terms. (It should be pointed out that this figure covers only those Faculty members having a <u>Primary</u> appointment in Pathology - those with joint appointments in Pathology

whose home department is elsewhere are not included in these statistics). As can be seen by the reference to the comparator medical schools, this is a record which puts the Department at the top rank of departments across Canada. Pathology Department researchers have 4 times within the last 10 years won the University-wide Excellence in Research Award, a record unmatched by any other university department. Research groupings in the Department, in Cancer, Haemostasis, Amyloidosis, Neuroscience and Human Genetics have been well established, with multiple links to researchers in other departments across the university, and internationally. In this we have been the leaders in the development of highly productive research groups.

The service aspects of the Department take place mainly in the affiliated hospitals, Kingston General and Hotel Dieu. There is a complex administrative structure, which has traditionally encompassed 2 separate hospitals. In advance of the restructuring in the city of Kingston, a single Department sited primarily at Kingston General Hospital was developed in 1996. The clinical activities cover a wide range of specialist's and sub-specialist's expertise.

A major enterprise of a great practical and academic importance is the Clinical Laboratories of Eastern Ontario Regional Programme. This has been a concerted initiative over the last 10 years, involving the provision of laboratory services, expertise and increasingly education by the Queen's academic department to the hospitals in the region of South Eastern Ontario. This exercise is a novel one in Ontario with the potential to serve as a model not only for other Academic Pathology Departments across the Province, but for Clinical Departments as well.

The Department is thus fulfilling the mandate of the Dean's Vision Statement of the Medical School, in the Generation, Transmission and Application of knowledge. It has long concentrated on the training of excellent General Pathologists, while at the same time achieving international stature in the provision of selected sub-specialists' services. In the service and education sectors, the Department has served not only the entire local area, but has now embarked on an ambitious regional programme, taking into consideration the unique features of the South Eastern Ontario Health Sciences environment. In the field of research, or knowledge generation, international excellence has been achieved, through the formation of collaborative groups both within and outside the Department.

#### PRESENT STATUS OF THE KINGSTON HOSPITALS LABORATORY

We completed the integration of Hospital Laboratories in extensively renovated, pleasant, efficient and functionally sited space at KGH in early 1998. The laboratories serve KGH, HDH and St. Mary's and also the southeastern region extending from Trenton to Brockville and north to Perth/Smith Falls and in selected instances other communities. This central laboratory is analogous to an industrial plant in which physical design, work process and volume are necessary to provide both efficiency and quality. We continue to have the most integrated laboratories and laboratory physician and scientist group of any Ontario teaching centre. We are fulfilling our plan to make ourselves so compelling in quality, service and price that we will be the most attractive reference and sophisticated testing site for all patients in and bordering our region and for the Public Health Laboratories. We have considerable experience in accommodating the difficult marriage of industrial and academic health care cultures and believe we can flexibly meet the evolving needs of all the regions patients.

We now have the most sophisticated regional laboratory system in the province. This has been possible in part because of our discrete population base of 500,000. This patient population however limits the breadth and depth of our subspecialty expertise, the range of our clinical research and our industrial efficiencies. We are one half the size of the next smallest academic health science centre, Ottawa and one third that of the third smallest, London. We have renegotiated our contract for all reference laboratory work for all hospitals in region CE1 to the West including Oshawa and Peterborough.

Our last major project which has been approved and funded, is the re-engineering of our core facility through the purchase of high volume, sophisticated chemistry/immunology and hematology equipment. We are currently in the top 10<sup>th</sup> percentile of cost efficiency in major hospital laboratories across the country and the new equipment will enable us to handle a larger array of tests at our current test cost over the next five years.

The final step in the plan, the much needed renovation of Douglas 4 as a fully consolidated genetics floor, is underway. This floor will integrate Cytogenetics from Doran with DNA and Biochemical Genetics and associated staff offices. New whole blood testing instrumentation was considered by Anaesthesia, Nursing, Pediatrics and Pathology and then successfully implemented in the Operating Room and the central laboratory. Rapid testing using very small quantities of blood is now available for the Neonatal ICU, the Operating Room and in critical patients for the ICU and Emergency. A KGH Point of Care Testing Policy was accepted and is being judiciously implemented.

A small one technologist rapid response laboratory at HDH open from 0700 - 2300 meets most clinical requirements for timely reporting. We have introduced point of care glucometer testing. We also perform frozen section and bone marrows on site on request.

We have also just been designated and funded as one of five Regional Forensic Centres in Ontario. We now perform approximately 320 autopsies/year of which 173 were medico-legals and have developed a focussed group of forensic experts within the department. We are planning minor renovations to the autopsy/forensic facility which was developed in 1986 which was considered to be the best functionally designed unit in the province.

### CLINICAL LABORATORIES OF EASTERN ONTARIO (CLEO)

The Laboratory Outreach Program is operated by the Department of Clinical Laboratories of Kingston General Hospital, in conjunction with the Department of Pathology of Queen's University. The Program office and specimen reception area are located in Douglas Wing in Kingston General Hospital.

The Queen's University Department of Pathology has been providing a wide spectrum of outreach laboratory services for more than 20 years to a number of institutions (principally community hospitals) in southeastern Ontario and parts of northern Ontario (e.g. Moose Factory, Attawapiskat).

In 1987, in response to steady increases in referred-in service requests as well as to the growing needs of client institutions for more sophisticated laboratory testing, a distinct unit was created within the Clinical Laboratories of Kingston General Hospital. Its original purpose was to organize the pickup, reception and delivery of specimens and completed reports to contractual and non-contractual partners and clients. The Hotel Dieu Hospital joined in 1991 and we have operated since as a Kingston Hospitals Laboratory. Today, our staff have extended their activities into continuous quality improvement with performance of client satisfaction surveys and regular frequent interactions with clients to identify and address their needs and concerns. Additionally, the ongoing provision and co-ordination of Continuing Education services for clients is steadily increasing.

Most importantly for our clients, the lab outreach program provides a single entry point supported by a toll-free telephone number for all inquiries about pickups, results, lab specimen requirements or other needs, for clinicians, institutions and researchers alike. This ensures high quality, personalized service and eliminates the necessity to call several telephone numbers for a response to particular service issues.

Our client base has grown significantly with reference laboratory services provided to community hospitals located in Trenton, Belleville, Picton, Napanee, Perth, Smiths Falls, Brockville, Oshawa, Peterborough, Cobourg, Whitby, Bowmanville, Uxbridge, Port Perry and Lindsay. Laboratory services are also provided to Correctional Services Canada, MDS Laboratories, Canadian Medical Laboratories, Gamma/Dynacare Laboratories, Hospitals-In-Common Laboratory, Canadian Forces Base Kingston, Royal Military College, and a number of family physicians and dermatologists in the Kingston and Napanee communities. We also occasionally provide highly specialized testing services for a small number of American clients.

In addition to reference laboratory services, we offer medical/scientific direction to community hospital laboratories in Smiths Falls, Perth, Napanee, Belleville and Kingston (St. Mary's of the Lake Hospital and Ongwanada). Technical and laboratory management expertise are available to client institutions upon request.

Since 1991, remote printing of reports and on-line inquiry capability has been available for clients and currently, nine sites have electronic access to referred-in test results. The lab outreach program co-ordinates complete installation and technical support services for these systems, allowing same day test reporting performance for any client in our catchment area.

PERSONNEL, AWARDS AND SIGNIFICANT EVENTS



### PERSONNEL, AWARDS AND SIGNIFICANT EVENTS

### AWARDS

#### THE QUEEN'S CAMPAIGN

**The Department of Pathology** received the Bronze Award of Merit during the recent Campaign which recognized department which exceeded the average participation rate of the last campus campaign.

#### C.W. GOWDEY DISTINGUISHED LECTURER

**Dr. Susan Cole** received the C.W. Gowdey Distinguished Lecturer Award from the University of Western Ontario

#### **AESCULAPIAN SOCIETY TEACHING AWARD**

Dr. David Dexter received Aesculapian Society Award for Excellence in Teaching (Phase 1).

#### YVETTE MAYENT RESEARCH AWARD & INSERM/CRM AWARD

**Dr. Bruce Elliott** was the recipient of the Yvette Mayent Research Award (Sept. 1999-May 2000) and an INSERM/CRM Award (June-August 2000) as a Visiting Scientist in the laboratories of Dr. D. Louvard and Dr. M. Arpin at the Cure Institute, Paris, France.

#### MRC SCHOLARSHIP

Dr. Peter Greer has received a Medical Research Council of Canada Scholarship from 1994-1999.

#### PAIRO TRUST FUND TRAVEL AWARD

**Dr. David Hurlbut** received the PAIRO Trust Fund Travel Award for Clinical Educator, Queen's University, 1999.

#### **ROBERT PRENTICE AWARD - RESIDENT PATHOLOGY TEACHING**

Pathology Residents were pleased to present **Dr. David Hurlbut** with the Robert S.A. Prentice Award for excellence in teaching.

#### **RANDOX JUNIOR SCIENTIST AWARD**

**Dr. David LeBrun** received the Randox Junior Scientist Award which is awarded by the Canadian Association of Pathologists for outstanding research contribution by a pathologist under 40 years of age. Dr. LeBrun attended the Canadian Association of Pathologists Meeting in June 1999 where he gave and talk and received his award.

### HEART & STROKE FOUNDATION OF ONTARIO

**Dr. David Lillicrap** participated in the greater-Kingston-area advertising campaign for the annual HSFO fundraising lottery. His picture appeared in Kingston area newspapers and television ad campaigns.

### **ROYAL COLLEGE VISITING PROFESSORSHIP**

**Dr. David Lillicrap** received the Royal College Visiting Professorship in Medical Research - McMaster University Medical Centre

### **ONTARIO HEART & STROKE FOUNDATION**

Dr. David Lillicrap has been an Ontario Heart and Stroke Foundation Career Investigator since 1995.

### AESCULAPIAN SOCIETY TEACHING AWARD

**Dr. Samuel Ludwin** received the 1999 Aesculapian Society (Medical Students' Society) Teaching Award for Excellence in Teaching (2<sup>nd</sup> year medical students).

# INTERNATIONAL SOCIETY OF NEUROPATHOLOGY

**Dr. Samuel Ludwin** is President Elect of the International Society of Neuropathology, to take over as president in September 2000.

# CANADIAN MULTIPLE SCLEROSIS SOCIETY

Dr. Samuel Ludwin was elected Chairman of the MAC of the Canadian Multiple Sclerosis Society.

### PMAC/MRC AWARD

**Dr. Donald Maurice** has received the distinguished Pharmaceutical Manufacturing Association of Canada Health Research Foundation/Medical Research Council Career Award in Health Sciences Award, salary support for 1996-2001. Only one granted in Canada.

# **BASMAJIAN AWARD**

**Dr. Lois Mulligan** was the 1998-99 recipient of the Basmajian Award for excellence in research. She was presented with the award June 22 when she delivered the annual Basmajian lecture.

### **ROYAL COLLEGE MEETING**

**Drs. Sandip SenGupta, Iain Young et al.** won 1<sup>st</sup> prize for a proffered paper presented by Dr. B. Tompkins, a radiation oncology resident).

# ONTARIO ASSOCIATION OF PATHOLOGISTS

Dr. Sandip SenGupta was elected president of the OAP.

### 1999 R.S.A. PRENTICE AWARD

Dr. Jason Sack received this award for the best presentation by a pathology resident.

# 1999 UNDERGRADUATE EDUCATION RECOGNITION AWARD

**Dr. Lewis Tomalty** was the recipient of the Faculty of Health Sciences 1999 Undergraduate Education Recognition Award.

#### SIGNIFICANT EVENTS

**Dr. Sandy Boag** was reappointed for a further 5 year term; **Drs. Peter Greer & Donald Maurice** for a further 3 years.

Drs. Donald Maurice, Sherry Taylor and Lois Mulligan were each promoted to Associate Professor.

**Dr. Gloria Delisle** retired from her position as Director of the Microbiology Laboratory at the Kingston Hospitals effective June 30, 1999. Dr. Delisle keeps her position in the Department of Microbiology and Immunology, Queen's University.

Dr. Santosh Wasan retired as of October 1, 1999.

**Bruce Elliott** has begun a sabbatical at the Institut Curie in Paris. Bruce will be working on the role of cytoskeletal proteins in HGF-induced cell survival growth and migration. Bruce is supported in his sabbatical leave by a sabbatical research award from the Curie Institut and from the MRC/INSERM.

**Samuel Ludwin** has begun his first sabbatical to be focussed on work at the National Institutes of Health in Bethesda, Maryland with an internationally acclaimed group working on Multiple Sclerosis. Sam is currently Chairman of the Medical Advisory Board of the Multiple Sclerosis Society of Canada and is the President-Elect of the International Society of Neuropathology. **David M. Robertson**, a past Head of the Department, our most active Emeritus Professor and an internationally acclaimed neuropathologist will be occupying Sam's office during the next year and complementing John Rossiter in neuropathology.

**Dr. Lewis Tomalty** succeeded **Dr. Gloria Delisle** as the Director of the Kingston Hospitals Microbiology Laboratory subsequent to Gloria's retirement on June 30th.

**Dr. Lewis Tomalty** was appointed Associate Dean, Continuing Education in the Faculty of Health Sciences for the term February 1, 1999 to June 30, 2004.

### THE ROBERT H. MORE LIBRARY DEDICATION

The Robert Hall Memorial Library was formally dedicated in Richardson Amphitheatre on 25 May 1999. It was a wonderful warm and intimate ceremony attended by Bob's wife Dorothy and his children David and Patricia. The highlights were the addresses of past Faculty members and Dr. More's response. Junior Faculty who joined the Department in the last few years were impressed by the richness of our professional and personal relationships and the celebration of their continued influence on all of us.

### **1ST ONTARIO PATHOLOGY POSTGRADUATE MEETING**

The Queen's Pathology Department hosted the 1<sup>st</sup> Ontario Pathology Postgraduate (PG) Meeting on the August 28-29 weekend. This inaugural meeting, conceived by the pathology department heads of the Ontario schools, was designed to provide a forum where Ontario pathology trainees (residents and fellows) and their mentors could informally meet, exchange experiences (both good and bad), and discuss a variety of issues relevant to laboratory medicine PG training in Ontario. Through the various school's program directors, pathology residents from across the province were invited to Kingston with accommodation and meal costs covered by their individual programs. Approximately 18 residents attended with excellent representation from trainees in Toronto and Western. The educational program included presentations on a) exciting aspects of pathology education at Queen's (digital presentation and pathology high school enrichment course; plastination; CD and web-based teaching), b) laboratory career and management issues (physician/scientist career in pathology; regional lab practice; pathologists' assistant), c) case studies in lab medicine ethics and group organization, d) molecular pathology at Queen's, and e) neuropathology. In addition to informal discussion and fellowship at refreshment breaks and a pre and post-meeting lunch each day, a banquet on Saturday evening at Fort Henry (lower fort) complete with pre-dinner tour and period animation by the fort guard staff was the highlight of the social component of the meeting. The Kingston Blues Festival (compliments of The City of Kingston) offered a further venue for resident fellowship that was obviously accessed by some participants, judging by the somewhat light attendance on the Sunday morning educational session.

#### **High School Enrichment Course**

by Carla Cuthbert

The month of May conveyed with it the **High School Enrichment Course** offered to high school students at Queen's University during the weeks of the 10<sup>th</sup> and the 17<sup>th</sup>. The Department of Pathology offered two courses this year; **Cancer Research** taught by Suzie Abu-Abed and Mario Murreda and **Pathology: A growing field in Medicine** instructed by Carla Cuthbert, Jason Sack and Tim Childs.

The Cancer Research course was targeted towards 9<sup>th</sup> and 10<sup>th</sup> grade high school students and covered topics relating to the basic and cellular biology of carcinogenesis. The students were taken on tours of both the anatomy museum and the Kingston Regional Cancer Centre (KRCC). Guest speaker Cara Rinaldi, a genetic counselor associated with the Familial Oncology Program at the KRCC, gave insights into the clinical aspects of cancer. Three cancer patients also conveyed their personal experiences about their bone marrow transplants and recovery from leukemia.

The course in Pathology covered aspects of cell injury and the fundamentals of inflammation and repair. The students had significant hands-on exposure to relevant pathology specimens that effectively illustrated topics covered in lectures. Students also learned the steps involved in the processing of surgical samples, taking patient histories and performing autopsies. Genetic disorders were also explored and this was followed by engaging discussions on ethical issues surrounding various advances in Biotechnology. Guest speakers included Dr. Ford and her riveting talk on Forensics, Dr. LeBrun's insights on being both a Pathologist and Researcher and Dr. Lillicrap's discussion on Gene Therapy. Students were also able to visit the Anatomy Museum, the Autopsy Suite and explored various techniques used in the Richardson Research Laboratories.

Altogether, the courses were enjoyed by all, students and instructors alike and all the instructors wish to again thank everyone who helped to make these two weeks a success.

**Congratulations** to **Dr. Tim Childs** and his wife on the birth of their second child, Andrew, born at home on November 5, 1999, weighing 6 lbs 14 oz. A brother for Ben.

UNDERGRADUATE, GRADUATE AND POSTGRADUATE EDUCATIONAL PROGRAMS



# UNDERGRADUATE, GRADUATE AND POSTGRADUATE EDUCATIONAL PROGRAMS

### UNDERGRADUATE PROGRAMME

**Phase I Pathology** is given in the academic year from mid-November to mid-February to first year medical students. Enrolment is 75 students.

**Phase II Pathology** is given after Phase I to  $2^{nd} \& 3^{rd}$  year medical students but not in a Pathological Unit as such, but rather as a course combined with most other disciplines. Enrolment is 75.

**Medical Sciences Rounds** is given to 1<sup>st</sup> year medical students. Created, directed and predominantly taught by researchers in Pathology as a stimulating course focussed on the intellectual path between the bedside and laboratory in specific diseases.

**Rehabilitation Medicine 225** This course was created by the amalgamation of two medical science courses, RHBS 234 (in which Pathology previously lectured) and RHBS235, which were taught to Occupational and Physical Therapy students. This restructuring resulted in changes in the course content as well as the time allotted for each specific topic. The Department chose to continue its involvement by lecturing the Pathology unit. This section runs for four hours in January and two in March. Dr. SenGupta, the Coordinator, as well as Drs. Tim Childs, David Dexter and Paul Manley were lecturers. Enrolment is approximately 75 students.

**Pathology 410/824** is a half credit course which runs in the Fall term and is co-ordinated by Dr. John Rossiter. It is offered to 4th year Life Sciences (non-medical) and graduate students. 41 undergraduate students and 6 graduate students enrolled in this course in 1999. Evaluation for undergraduate students includes a mid-term and final exam whereas graduate students, in addition to the exams, are expected to submit a term paper. The course content, exams and marking system will be reviewed by the Co-ordinator and instructors in February, 2000 in response to the submitted course/instructor evaluations from the students.

**Pathology 420** is a full credit thesis project course co-ordinated by Dr. David Lillicrap. Department faculty members supervise students on a year long thesis project. Evaluations include a draft thesis introduction, seminar presentation, project defence, laboratory work evaluation and a written thesis. Enrolment is limited to approximately 12 students.

**Pathology 430/826** is a half credit course that is offered in alternate Winter terms (offered in 1998-1999). Drs. Robert Kisilevsky and David Lillicrap are Coordinators. Four diseases are covered in depth, examining the molecular events leading to the development of these disorders. Enrolment is limited to 12 with preference given to graduate students. Evaluation includes seminar presentations and written reports. Examinations are limited to undergraduate students.

### **GRADUATE PROGRAMME**

The Graduate Programme in the Department of Pathology is administered by the Graduate Program Committee. The Committee consists of five members of the Department, one of whom is designated Coordinator, plus the Head of the Department (Dr. Paul Manley) and two graduate student representatives *ex officio*. Dr. Lois Mulligan co-ordinated the Program and chaired the Department of Pathology Graduate Committee in 1999. Other faculty members were Drs. Susan Cole, Bruce Elliott (until 01/07/99), Peter Greer (as of 01/07/99) and David LeBrun. The student representatives until July 1, 1999 were Mr Kevin Weigl and Mr. Ben Matthews; Miss Deb Greer and Mr. Jordan Hansford assumed these positions for the 1999/2000 academic year. The Committee met on a monthly basis to make decisions on admissions, review student progress, review membership of Master's and Doctoral theses committees and rate and recommend students for scholarships and awards.

Thirty-one students were registered during the 1999 calendar year. Thirteen were registered in the Doctoral Programme and 18 in the Master's Programme. Three Master's students (Chun-yan Li, Ben Matthews, Christopher Udell) and one Doctoral student (Megan Begbie) defended their theses in 1999. Mian Gao, Jin Gui and Yotis Senis successfully defended their comprehensive examinations. Suzie Abu-Abed, Kevin Weigl and Bob St. Onge were successful in the defence of their Mini-Master's theses and were promoted to the PhD Program.

For the 1999 academic year, four Department of Pathology graduate students were awarded Ontario Graduate Scholarships/Ontario Graduate Scholarships in Science & Technology: Melissa Carter, Deb Greer, Glenn MacLean and Yotis Senis. MRC Studentships were held by Suzie Abu-Abed, Megan Begbie, Chris Davidson and Angela Keightley. Jin Gui was awarded a US Army Fellowship.

Queen's Graduate Fellowships were awarded to Annie Killoran, Lee Fraser, Dawei Zhang. Bob St. Onge was awarded a Senator Frank Carrel Fellowship.

In the calendar year 1999 the Graduate Program processed approximately 150 requests for application material and/or information. About half of these were handled by electronic mail. Thirty applications were received and processed resulting in ten new students being accepted by supervisors in 1999.

### **RECRUITMENT INITIATIVES:**

The Department of Pathology is represented at the Life Sciences careers evening in January. Many 3rd and 4th year students indicate their interest in 4th year projects or graduate studies at this event. In addition, the Department has a limited budget to invite excellent students to visit the Department from other centres. A Pathology Graduate Studentship competition is held annually to offer an excellent student a one year award on acceptance of a graduate student position in the Department. Together, these initiatives have improved the profile of the Department of Pathology in the Life Sciences programme and recruitment for graduate studies.

### **OUTREACH:**

During the past year, several outreach initiatives involving graduate students and Faculty members in the Department have continued. Some students as well as some members of the Department have been involved in a Cancer Conference presented to some of the local public schools. This programme is organized by faculty and students in the Departments of Oncology, Biochemistry and Pathology. In addition, interested graduate students have been involved as judges for the Frontenac Lennox & Addington Science Fair. The Department of Enrichment Studies offers a Pathology course for gifted high school students across Canada. In the past, these two one-week sessions have run in April/May and offered high school students a good overview of Pathology. The course will be expanded in 2000.

### **GRADUATE STUDENT PRESENTATIONS:**

Graduate students were honoured by invitations to present their research at national/international conferences. These are outlined below:

Ms Megan Begbie	XVII Congress of the International Society on Thrombosis and Haemostasis. August 14-21, 1999, Washington DC, USA. "The Factor VIII Acute Phase Response: Role of C/EBP and NF?B Binding in the 5' Non-coding Region"
Ms Carla Cuthbert	XVII Congress of the International Society on Thrombosis and Haemostasis. August 14-21, 1999, Washington DC, USA. "Expression of von Willebrand factor in Megakaryocytes is Modulated by Multiple GATA Elements and by a Negative Regulatory Region within the First Exon of the Gene"
Mr. Lee Fraser	First International Fission Yeast Meeting. September 25th-30, 1999, Edinburgh, U.K. "The Uve1 Endonuclease Functions in Mismatch <i>in vivo</i> Mutational Properties of S. pombe Uve1 Mutants"
Ms Deborah Greer	<ul> <li>First International Fission Yeast Meeting. September 25th-30, 1999, Edinburgh, U.K.</li> <li>"Biochemical characterization of Rad12/Top3 interaction and its role in checkpoint regulation"</li> <li>Kingston Regional Yeast Meeting, Kingston, ON.</li> <li>"Mechanistic Studies of Exit from the S Phase Checkpoint"</li> </ul>
Ms Angela Keightley	Annual meeting of the Hemophilia Research Society of North America. (Held in conjunction with American Society of Hematology). December 3 - 7, 1999, New Orleans, Louisiana, USA "Factors Influencing the Expression of Plasma von Willebrand Factor"

Ms Jennifer Struthers	49 <sup>th</sup> Annual American Society of Human Genetics Meeting. October 19- 23, 1999, SanFrancisco, California, USA "Molecular Screening for Smith-Magenis Syndrome among a Large Population of Patients with Mental Retardation"
Dr. Kirsty Tompkins	XVII Congress of the International Society on Thrombosis and Haemostasis. August 14-21, 1999, Washington DC, USA. "Evaluation of the Glycoprotein Iba Kozak Sequence and Variable Number Tandem Repeat Polymorphisms as Risk Factors for Unstable Angina"
Ms Adina Vultur	15th Annual Meeting on Oncogenes. June 22-25, 1999, Frederick, MD, USA. "SVLT Effects upon the Raf Pathway"

### **RESEARCH SEMINAR SERIES**

The Department of Pathology Research Seminar Series is held every Tuesday during the academic year in Richardson Amphitheatre at 4:00 p.m. Speakers include Graduate Students, Pathology Faculty, and invited speakers from both within and outside of Queen's University. The following seminars were presented by graduate students in 1999.

Ms Suzan Abu-Abed		Generating a P450RAI Knockout in the F9 Cell Line and Mouse	
Mr. Brian Brown	1) 2)	Introduction of a Single Nucleotide Change at the Prothrombin 20210 Locus Using a Novel Method of Gene Correction. Chimeraplasty: Correcting the Genome One Nucleotide at a Time.	
Ms Melissa Carter		Characterizing the 3' Splice Variants of the RET Proto-oncogene.	
Ms Carla Cuthbert		Studies of von Willebrand Factor Gene Expression.	
Mr. Chris Davidson		Characterization of the Interaction between A-Beta and Heparin/Heparan Sulphate.	
Mr. Mian Gao		Structure and Function Analysis of Human Multidrug Resistance Protein, MRP: Domain Interactions and ATP Hydrolysis.	
Ms Deb Greer		Regulation of G2 Checkpoint Control. DNA Damage-Dependent Interaction of hRad9 and BRCA1.	
Mr. Jordan Hansford	I	Regulation of the GFRa-1 Gene.	
Mr. Martin Kang		Mismatch Repair in S. pombe.	
Ms Annie Killoran		Exploring Options of Non-viral Gene Delivery.	
Ms Chunyan Li		During acute inflammation <i>in vivo</i> does SAA influence splenic cholesterol efflux?	

Mr. Glenn MacLean	Retinoic Acid Metabolism.
Mr. Bob St. Onge	hRAD9, Preserving the Genome for Future Generations.
Mr. Yotis Senis	Elucidating the Role of the <i>fps</i> Proto-oncogene in Hematopoiesis Through the Use of Mouse Models.
	Magenis Syndrome: Large-scale Molecular Screening for Interstitial deletion of 17p11.2 in Patients with Developmental Delay.
Ms Kirsty Tompkins	Genetic variation in the von Willebrand factor and Platelet Glycoprotein Ib Genes: Possible Role in Atherosclerosis.
Mr. Chris Udell	Characterization of hRAD1, the Human Homologue of the Schizosaccharomyces pombe rad1.
Ms Adina Vultur	The Role of Chaperones in RAF Activation and Function.
Mr. Kevin Weigl	Topology Studies of the Multi-drug Resistance Protein.
Mr. Dawei Zhang	Functional Analysis of Site Specific Mutations in Murine Multi-Drug Resistance Protein Murine MRP.
Ms Leah Young	Expression of MRP-related Genes in Lung Cancer.

# COUNCIL OF ONTARIO UNIVERSITIES PERIODIC APPRAISAL

In July 1996, the Appraisals Committee of the Council of Ontario Universities evaluated the Master's and Doctoral programs in the Department of Pathology. Periodic appraisals of the graduate programs are undertaken at seven year intervals by the Ontario Council on Graduate Studies. A detailed brief, outlining all aspects of the Graduate Program in the Department was prepared and submitted to the School of Graduate Studies and Research in May 1996, for final submission to the Council of Ontario Universities. In February 1997, the Department was informed that the Appraisals Committee had approved the MSc/PhD Program in Pathology with an "A" rating. The next accreditation will be in 2003.

### **GRADUATE COURSES**

The following graduate courses are offered in the Department of Pathology:

#### **Cancer Biology - Pathology 823**

This course is co-ordinated by Dr. Bruce Elliott. Essential questions in clinical and basic oncology are introduced and discussed. The course is offered in alternate years. Enrolment is limited to 20 students or less. It was not offered in the 1999/2000 academic year.

#### Graduate Pathology for Non-Medical Students - Pathology 824/410

The course co-ordinator is Dr. John Rossiter. This course provides a general introduction to the pathological processes involved in common human disease. The course is offered annually in the Fall. Six graduate students were enrolled in the Fall term of 1999.

#### Human Genetics - Pathology 825

The course co-ordinator is Dr. Lois Mulligan. Molecular mechanisms responsible for human disease are discussed with examples of diagnostic studies. The course is offered in alternate years in the Winter term. In the Winter term of 1999-2000, eleven students were enrolled.

#### The Molecular Basis of Disease - Pathology 826

The course co-ordinators are Drs. Robert Kisilevsky and David Lillicrap. This graduate course is offered alternate years; enrolment is limited to 15 students or less. The course reviews in detail the pathogenic details of four specific areas of tumour disease. It was not offered in the 1999/2000 academic year.

DEPARTMENT OF PATHOLOGY GRADUATE STUDENTS 1999 (Calendar Year)

Student Name	Program	Start Date	Supervisor
Abu-Abed, Suzan	MSc/PhD	1/97 / 1/99	Dr. Petkovich
Almquist, Kurt	PhD	09/95	Drs. Cole/Deeley
Begbie, Megan	PhD	01/97	Dr. Lillicrap
Brown, Brian	MSc	09/98	Dr. Lillicrap
Carter, Melissa *	MSc	09/99	Dr. Mulligan
Cuthbert, Carla	PhD	09/94	Dr. Lillicrap
Davidson, Chris	PhD	09/97	Dr. Kisilevsky
Fraser, Lee	PhD	09/98	Dr. Davey
Gao, Mian	PhD	09/97	Drs. Deeley/Cole
Greer, Deborah	MSc	09/98	Dr. Davey
Gui, Jin	PhD	09/96	Dr. Elliott
Hansford, Jordan	MSc	09/98	Dr. Mulligan
<u>Hyndman, Brandy *</u>	MSc	09/99	Dr. LeBrun
Kang, Martin *	MSc	09/99	Dr. Davey
Keightley, Angela	PhD	01/96	Dr. Lillicrap
Killoran, Annie *	MSc	09/99	Dr. Lillicrap
Li, Chunyan	MSc	09/96	Dr. Kisilevsky
Lin, Eva *	MSc	09/99	Dr. Elliott
MacLean, Glenn *	MSc	09/99	Dr. Petkovich
Matthews Ben	MSc	09/97	Dr. LeBrun
Senis, Yotis	PhD	05/96	Dr. Greer
St. Onge, Bob	MSc/PhD	9/97 / 9/99	Dr. Davey
Struthers, Jennifer	MSc	09/98	Dr. Khalifa
Tompkins, Kirsty	MSc	09/98	Dr. Lillicrap
Truesdell, Peter *	PhD	09/99	Dr. Greer
Udell Chris	MSc	05/97	Dr. Davey
Vultur, Adina	MSc	09/98	Dr. Raptis
Weigl, Kevin	MSc/PhD	9/97 / 9/99	Dr. Cole
Wong, Joyce	MSc	01/93	Dr. Giles
Young, Leah	PhD	09/94	Dr. Gerlach/Dr. Campling
Zhang, Dawei w students for 1999/2000	PhD	09/98	Dr. Deeley Undated: 25 Octo

\* New students for 1999/2000

Updated: 25 October 2000

# POSTGRADUATE MEDICAL EDUCATION

Dr. David Hurlbut is the Director of the Postgraduate Education Program in the Department of Pathology and also the Program Director of Anatomical and General Pathology. Dr. Samuel Ludwin is the Program Director of Neuropathology; Dr. John Rossiter is serving as Acting Program Director while Dr. Ludwin is on sabbatical (09/99 - 06/00). The Program Director of Hematopathology is Dr. Lois Shepherd. Ms. Barbara Saunders is the Program Assistant for Postgraduate Education in the Department.

# **Resident Appointments**

### July 1, 1998 - June 30, 1999

Dr. Konrad Chan	PGY-5	General Pathology	
Dr. Tim Childs	PGY-2 General Pathology		
Dr. Navdeep Gill	PGY-5	General Pathology	
Dr. Michael Rutherford PGY-5 Anatomic Pathology			
Dr. Jason Sack	PGY-2	General Pathology	
(transferred into General Pathology 08/01/98)			

#### July 1, 1999 - June 30, 2000

Dr. Tim Childs *	PGY-2	Anatomic Pathology
Dr. Jason Sack *	PGY-2	Anatomic Pathology
* (transferred from Gener	al into Anatomical	Pathology 07/01/99)

Dr. Ian Ross	PGY-1	Anatomic Pathology
(transferred from Patholo	gy into Dept. Ra	adiology 12/31/99)

### AWARDS

Dr. Jason Sack	Dr. R.S.A. Prentice Award for Best Presentation by a Pathology Resident -
	1999

#### CONFERENCES

Dr. Jason Sack	Ontario Association of Pathologists Annual Meeting. October 1-3, 1999, Minett, Ontario. "Bringing Pathology out of the Shadows: An Enrichment Mini-Course"
Dr. Tim Childs	Ontario Association of Pathologists Annual Meeting. October 1-3, 1999, Minett, Ontario. "Clinical data completion rates for surgical pathology requisitions"

### ACCREDITATION - ROYAL COLLEGE OF PHYSICIANS AND SURGEONS

The Royal College of Physicians and Surgeons Accreditation of the Anatomical Pathology, General Pathology, Hematopathology and Neuropathology Postgraduate Programs took place in October 1999. This was preceded by an internal review of each Program in July 98 (AP & GP Programs) and February 99 (Hematopathology & Neuropathology Programs). The Anatomical Pathology Program received full RCPSC accreditation. As the remaining Programs currently had no trainees, General Pathology, Hematopathology and Neuropathology were deemed inactive. This RCPSC program status dictates that a mandatory internal review be completed within one year of a resident entering any of these programs.

### CANADIAN RESIDENT MATCHING SYSTEM (CaRMS)

In the 1999 CaRMS match, Queen's Pathology had only one position (2<sup>nd</sup> position transferred to Neurology Program) which was successfully filled in the 2<sup>nd</sup> iteration (Dr. Ian Ross). We have received double the number of applications for the 2000 CaRMS match (two funded positions) with nine of twelve candidates completing interviews.

#### 1999 RESEARCH PROJECTS AND GRANTS

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT	
Drs. C. Nickel, A. Boag & I. Young	Kidney Foundation of Canada	\$75,000	1997-2000	Role of Prostatic Inflammation in Benign Prostatic Hyperplasia	
Drs. A. Boag & B. Campling	NCIC	\$90,000	1997-2000	Mechanisms of Drug Resistance in Prostatic Adenocarcinoma	
Drs. S. Cole & Dr. R. Deeley	MRC	\$138,000	1998-2001	Cellular and Molecular Studies of Drug Resistance Mediated by MRP	
Drs. B. Campling, S. Cole & R. Deeley	NCIC	\$177,000	1997-2000	Molecular mechanisms of Drug Resistance	
Drs. S. Cole & R. Deeley	NCIC	\$189,000	1997-2000	Multidrug resistance conferred by MRP	
Drs. S. Cole & R. Deeley	Eli Lilly	\$130,000 US	1998-2000	Molecular Mechanisms of Resistance to Natural Product and Platinum Containing Drugs	
Dr. S. Cole	NCIC	\$139,000	1997-2000	Investigation of Topoisomerase II in Drug Resistance	
Drs. C. Collier, M. Raymond & J. Matthews	OMAL Research Trust	\$5,000	1999-2000	Cost Effective Diagnosis & Monitoring of Monoclonal Gammopathies	
Drs. C. Collier & J. vanEyk	Pathology Clinical Trust Fund	\$9,300	1999-2000	cTnl: Kinetic Correlations in Serum, Urine and Tissue Samples form Patients undergoing Cardiac Bypass Surgery	
Dr. R. G. Deeley	MRC	\$92,936	1996-1999	Effect of estrogen on gene expression in liver	
Drs. B. Campling, J. Gerlach, R. Deeley	MRC	\$39,266	1996-1999	Molecular Basis of Cisplatin Resistance in Small Cell Lung Cancer Line.	
Dr. R. Deeley & Dr. S. Cole	NCIC	\$189,000	1997-2000	Multidrug Resistance Conferred by MRP	
Dr. R. Deeley & Dr. S. Cole	Eli Lilly	\$130,000 US	1998-2000	Molecular Mechanisms of Resistance to Natural Product and Platinum-Containing Drugs	
Drs. R. Deeley, B. Campling & S. Cole	NCIC	\$177,000	1997-2000	Molecular Mechanisms of Drug Resistance	
Drs. R. Deeley & S. Cole	MRC	\$138,000	1998-2001	Cellular & Molecular Studies of MRP-Related Multidrug Resistance	
Dr. B. Elliott	Canadian Breast Cancer Foundation	\$35,000	1998-1999	Hepatocyte Growth Factor in Survival and Metastasis of Breast Carcinoma: Effect of Signalling Through the Cell Adhesion Complex	

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT	
Dr. B. Elliott	US Army Breast Cancer Res Initiative	\$315,635 US	1996-2000	Role of an hepatocyte growth factor autocrine loop in growth and metastasis of breast cancer	
Dr. B. Elliott, et. al.	MRC Maint. Grant	\$129,000	1996-2001	Maintenance grant for flow cytometer and confocal microscope facility	
Dr. B. Elliott	CBCRI-IDEA	\$44,416	1999-2001	Development of Peptide Antagonists to Hepatocyte as a Novel Approach to Therapeutic Intervention in Breast Cancer.	
Dr. B. Elliott	USA/MRMC Trainee Funds	\$54,000 US	1998-2001	Signal Transduction in Regulation of Autocrine HGF Expression in Cancer Metastasis. PDF for W. Hung.	
Dr. B. Elliott	USAMRMC	\$14,885US/yr	1999-2001	Identification of Hepatocyte Growth Factor Autocrine loops on Breast Carcinomas: Possible Target for Therapeutic Intervention. Pre-doctoral Award	
Dr. B. Elliott	MRC	\$190,782	1999-2002	Role of HGF and the Cell Adhesion Complex in Survival and Metastasis of Lung Carcinomas	
Dr. B. Elliott	ССО	\$16,000	1999-2000	Trainee Award for MSc Student	
Drs. A. Fletcher, R.L. Reid, D.A. VanVugt, J.C. Kennedy	MRC	\$93,000/yr	1999-2001	A Novel Approach to the Diagnosis and Treatment of Endometriosis: Photodynamic Therapy	
Dr. S. Ford & Dr. L. Wang	Can. Anesthetists Soc.			Cardiac Lesions Produced by Various Methods of Raised Intra- Cranial Pressure	
Dr. P. Greer	MRC/PMAC	\$23,230/MRC \$100,000/PMAC	1998-2000	Development of Transgenic Mouse Models for the in vivo Analysis of Anti-Angiogenic Treatment of Cancer.	
Dr. P. Greer	NCIC	\$100,500	1998-2001	A Molecular and Genetic Analysis of the fps proto-oncogene	
Dr. P. Greer	MRC	\$93,628	1998-2001	A Molecular and Genetic Analysis of the murine fer gene.	
Dr. P. Greer	Faculty of Health Sciences, Queen's	\$12,000	1999-2000	Development of Transgenic Mouse Models for the in vivo analysis of anti-Angiogenic Treatment of Cancer	
Drs. K. Harrison & D. LeBrun	Clare Nelson Bequest	\$7,000	1998-1999	Analysis of Malignant Lymphomas by Comparative Genomic Hybridization	
Drs. K. Harrison, S. Taylor & M. Khalifa	Pathology Clinical Trust Fund	\$8,510	1999-2000	Molecular Screening for Smith-Magenis Syndrome in Children with Undiagnosed Mental Retardation	
Drs. K. Harrison & G. Davies	KGH Research Foundation	\$10,000	1999-2000	Fluorescent in situ Hybridization for the Detection of Prenatal Aneuploidy	
Dr. K. Harrison & Dr. S. Ludwin	JP Bickell Foundation	\$24,050	1998-1999	Identification of Genetic Changes in Oligodendrogliomas using Comparative Genomic Hybridization	

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT	
Drs. D. Hurlbut & W. Paterson	ACG Clinical				
	Research Fund	\$28,836	1999-2000	Mast Cells in Gastroesophageal Reflux Disease	
Dr. R. Kisilevsky	NEUROCHEM Inc.	\$111,000	1999	An approach to the development of a treatment for amyloids and Alzheimer's disease	
Dr. R. Kisilevsky	MRC	\$104,000/yr	1998-2001	Amyloidogenesis: an analysis of the causative factors in an experimental murine model	
Dr. D. LeBrun	NCIC	\$86,820/yr	1997-2000	Biological consequence of E2A-PBX1 expression	
Dr. D. LeBrun & Dr. K. Harrison	Clare Nelson Bequest	\$7,000	1998-1999	Analysis of Malignant Lymphomas by Comparative Genomic Hybridication	
Dr. D. LeBrun	KGH Pathology Clinical Trust Fund	\$3,719	1998-1999	Biological Consequences of Expression of the E2A-PBX1 Leukemogenic Transcription Factor	
Dr. D. LeBrun	KGH Pathology Clinical Trust Fund	\$7,000	1999-2000	Identification of Genes Differnetially Regulated by the Oncogenic Transcription Factor E2a-Pbx1	

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT	
Dr. D. Lillicrap	Bayer/Red Cross	\$65,753	1997-1999	Receptor-mediated delivery of novel factor VIII transgenes in gene therapy for hemophilia A	
Dr. D. Lillicrap	Canadian Hemophilia Society	\$50,000	1999-2001	Evaluation of a Model System for the site-specific Correction of Hemophilic Mutations	
Dr. D. Lillicrap	Heart & Stroke Foundation	\$83,057/yr	1998-2000	Influence of Genotype and Environment on Endothelial Cell Expression of Von Willebrand Factor	
Dr. D. Lillicrap	Centeon/CBS	\$25,256	1999-2000	Polymorphisms of the Glycoprotein Ib(alpha) Receptor and their Influence on bleeding Manifestations and Diagnosis in Type I vonWillebrand Disease	
Dr. D. Lillicrap	Centeon/CBS	\$17,378	1999-2000	Influence of Genetic Sequence Variability in the vonWillebrand Factor Regulatory Region on the Diagnosis of Type I vonWillebrand Disease	
Dr. D. Lillicrap	MRC	\$106,201	1998-2002	Characterization of Mechanisms Regulating the Developmental Expression of Coagulation Factor IX	
Dr. D. Lillicrap	HSFO	\$53,500	1999	Career Investigator Award	
Drs. S. Ludwin & K. Harrison	Bickell Foundation	\$24,049	1998-1999	Identification of Genetic Changes in Oligodendrogliomas	
Dr. P. Manley & Dr. J. Pater	NCIC	\$42,500	1992-	Contract: Collection, verification and dissemination of tissue sections of study material	
Dr. D. Maurice	HSFO	\$75,000/yr	1999-2002	Cyclic nucleotide phosphodiesterases in arteries	
Dr. D. Maurice	MRC	\$52,500/yr	1999-2002	Role of PDE3 and PDE4 in Diabetes-Associated Cardiovascular Disease	
Dr. D. Maurice, Drs. G. Marks, K. Nakatsu, J. Brien	HSFO	\$70,000/yr	1996-1999	Effects of Nitrovasodilators, NO and CO on Blood Vessel Function	
Drs. M. Raymond, C. Collier and J. Matthews	OAML	\$5,140	1999-2000	Cost Effective Diagnosis of a Monitoring of Monoclonal Gammopathy	
Dr. J.P. Rossiter	ALS Society of Canada	\$20,000	1999-2000	Calpain and Caspase Protease Activity in Motoneuronal and Axonal Degeneration	
Dr. J. Rossiter	Pathology Clinical Trust Fund	\$10,000	1999-2000	Calpain and Caspase Protease Activity in Motoneuronal and Axonal Degeneration	
Dr. J. Rossiter	Pathology Clinical Trust Fund	\$10,000	1998-1999	Molecular Mediators of Motoneuronal Degeneration	

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT	
Dr. J. Rossiter	ALS Society of Canada	\$30,000	1998-1999	Molecular Mediators of Motoneuronal Degeneration	
Drs. S. SenGupta, K. Aronson & W. Hanna	Can. Breast Cancer Research Initiative	\$56,456	1999-2001	Steroid Receptor Content of Benign Breast Epithelium and Breast Cancer Risk	
Drs. L. Shepherd, K. Pritchard, P. Watson, M. Pollak	NCIC	\$47,399	1997-2000	Clinical Trials - A tumour, tissue and clinical data bank for breast cancer patients	
Drs. L. Shepherd & T. Whelan	NCIC	\$300,000	1999-2002	A Randomized Trial of Regional Radiotherapy in Early Breast Cancer	
Drs. L. Shepherd & K. Pritchard	CBCRI	\$100,000	1999-2002	The Role of New Erb G-2 as a Predictive Factor for Differential Response to Adjuvant Chemotherapy and Tamoxifen	
Dr. L. Shepherd	NCIC	\$2,635,581	1992-1999	NCIC Clinical Trials Group	
Dr. L. Shepherd	NCIC	\$3,100,000	1999-2004	NCIC Clinical Trials Group	
Drs. S. Taylor & I. Andrulis	Cancer Care Ontario	variable/yr	1996-2000	Genetic analysis of the BRCA1 gene in familial breast and ovarian cancer	
Drs. S. Taylor, M. Khalifa & A. Duncan	PSI	\$65,000/yr	1997-2000	Molecular and cytogenetic delineation of Aicardi Syndrome	
Drs. S. Taylor & I. Andrulis	NIH	\$23,000/yr	1996-2000	Ontario Registry for Studies of Familial Breast Cancer	
Drs. S. Taylor, M. Khalifa & A. Duncan	MRC	\$53,000	1997-1999	Functional and Physical Mapping of Aicardi Syndrome	
Drs. S. Taylor, I. Andrulis and S. Gallinger	NIH	\$30,000	1997-2000	Ontario Registry for Familial Studies of Colorectal Cancer	
Drs. S. Taylor, M. Khalifa and K. Harrison	KGH Pathology Clinical Trust Fund	\$8,500	1999-2000	Smith Magenis Syndrome	
Dr. D. Zoutman	Health Canada	\$7,500	1999	National Surveillance of Methicillin Resistant Staph Aureus (multicenter)	
Dr. D. Zoutman	PSI	\$70,000/yr	1997-1999	Factors Affecting Antibiotic Decisions (FAAD) Research Project	
Dr. D. Zoutman	Health Canada	\$10,000	1999	Blood Sream Infections due to Dialysis Central Venous Catheters (multicenter)	
Dr. D. Zoutman	Health Canada	\$25,000	1999	Resources for Infection Contrl in Hospitals (RICH) Study (multicenter)	

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT	
Dr. D. Zoutman	Health Canada	\$5,000	2999	National Surveillance of Surgical Wound Infections (multicenter)	

DEPARTMENT OF PATHOLOGY VISITING LECTURERS 1999

# VISITING LECTURERS 1999

## **INVITED SPEAKERS**

NAME	TTTLE	DATE
<b>Dr. Dan Dumont</b> Cancer Biology Research Sunnybrook & Women's College Dept. of Medical Biophysics University of Toronto	Conditional Rescue of the Developmental Defects Arising from the <i>tek</i> <sup>?sp</sup> Allele	February 16, 1999
<b>Dr. Jane McGlade</b> The Hospital for Sick Children Research Institute, Toronto, Ontario	Role of the Adaptor Protein, Gads, in T-cell receptor signalling	February 23, 1999
<b>Dr. Wanda Hasegawa</b> Hematology Fellow Queen's University	Analysis of Mantle Cell Lymphoma by CGH	March 16, 1999
<b>Dr. J. Keffer</b> Professor, Lab. Medicine & Pathobiology University of Toronto	The Troponin Learning Curve: Making it Through the Second Level	March 23, 1999
<b>Dr. Michael Kawaja</b> Assistant Professor Department of Anatomy & Cell Biology Queen's University	Nerve Growth Factor-Mediated Axonal Sprouting is Enhanced in the Absence of the p75 Neurotrophin Receptor	March 30, 1999
<b>Dr. Lilly W. Bourguignon</b> Dept. of Cell Biology and Anatomy University of Miami Medical School	Role of CD44-Cytoskeleton Interaction in Oncogenic Signalling, Tumour Cell Invasion and Migration	April 6, 1999
<b>Dr. Alain Lagarde</b> Assistant Professor, Dept. of Surgery University of Ottawa	Assessing Genetic Susceptibility to Heritable Colon Cancer, a Polygenic Cancer Syndrome	April 20, 1999
<b>Dr. Geoff Pickering</b> Associate Professor Depts. of Medicine, Biochemistry & Medical Biophysics University of Western Ontario	Multiple Roles of Smooth Muscle Cells in Vascular Disease	May 4, 1999

NAME	TTILE	DATE
<b>Dr. Daniel H. Connor</b> Department of Pathology Georgetown University School of Medicine	Pathology of Infectious Diseases	September 9, 1999
<b>Dr. W. Sheffield</b> Associate Professor Depts. of Pathology & Molecular Medicine McMaster University	Physiologically Durable Recombinant Anticoagulant Proteins	September 21, 1999
<b>Dr. N. Grammatikakis</b> Kimmel Cancer Institute Thomas Jefferson University Philadelphia, PA	Towards Defining the Role of Chaperones in Kinase Signalling: The Raf-p50 <sup>cdc37</sup> /Hsp90 Paradigm	October 26, 1999
<b>Dr. Tony Pawson</b> Head, Molecular Biology & Cancer Samuel Lunenfeld Research Inst. University of Toronto	Protein Modules in Signal Transduction and Cell Fate Determination	November 5, 1999
<b>Dr. Dean Van Vugt</b> Associate Professor Dept. Obstetrics & Gynaecology Queen's University	Current Understanding of Stress and the Menstrual Cycle Derived from Endocrine and Molecular Approaches in the Non-human Primate	November 9, 1999
<b>Dr. John Srigley</b> Chief, Department of Laboratory Medicine The Credit Valley Hospital	Contemporary Classification and Staging of Urinary Bladder Cancer	November 11, 1999
<b>Dr. Kristan Aronson</b> Associate Professor Dept. of Community Health & Epidemiology Queen's University	Breast Cancer Risk by Tumour Characteristics (Receptor Status, Size, Grade) and Exposure to Pesticides and PCBs	November 23, 1999
<b>Dr. Joyce Slingerland</b> Associate Professor Dept. of Medicine & Medical Biophysics University of Toronto	Changes in p27 Phosphorylation, Localization and Loss of cdk Inhibitory Function in TGF-beta Resistant Breast Epithelial Cells	December 7, 1999

SENIOR STAFF DEPARTMENT OF PATHOLOGY AND QUEEN'S UNIVERSITY

LECTURES

### SENIOR STAFF DEPARTMENT OF PATHOLOGY AND QUEEN'S UNIVERSITY LECTURES

### Dr. P. Greer

1) Department of Oncology, Queen's University; 2) Gastrointestinal Diseases Research Group, Queen's University.

#### Dr. D. LeBrun

1) Pathology Grand Rounds, Queen's University, "E2a-Pbx1 in leukemia", October, 1999; 2) Department of Oncology Seminar Series, Queen's University, "How chromosomal translocations cause leukemia", December, 1999.

#### Dr. D. Lillicrap

1) Pathology Grand Rounds, Queen's University, "Predictive Testing for Cardiovascular Disease: Genetic Variability and the Hypercoagulable State", May 6, 1999.

#### Dr. L. Shepherd

1) Pathology Grand Rounds, Queen's University, "The Other Half of My Life - Challenges of an International Clinical Trial.

#### Dr. D. Zoutman

1) Department of Surgery, "Effective Use of Perioperative Antimicrobial Prophylaxis", March 31, 1999; 2) Department of Pathology Grand Rounds, "Antibiotics, A Passing 'Fad'"?, October 14, 1999.

## SENIOR STAFF DEPARTMENT OF PATHOLOGY

INVITED LECTURERS OUTSIDE OF KINGSTON

### INVITED LECTURES OUTSIDE OF KINGSTON SENIOR STAFF DEPARTMENT OF PATHOLOGY

### Dr. S. Cole

2nd FEBS Advanced Lecture Course. ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease, Gosau, Austria, February 24, 1999 (*plenary speaker*); 2) C.W. Gowdey Distinguished Lectureship, Department of Pharmacology & Toxicology, University of Western Ontario, London, Ontario, March 18-19, 1999; 3) 90th Annual Meeting of the American Association for Cancer Research. Meet the Expert Sunrise Session on Drug Resistance. Philadelphia, PA, April 11, 1999; 4) Hematology - Oncology Division, Massachusetts General Hospital, Harvard Medical School, Boston, MA, May 7, 1999; 5) 2nd FASEB Conference on transport ATPases, Snowmass, CO, July 7, 1999; 6) Symposium on "Drug Efflux Pumps: Challenges and Opportunities for Drug Delivery", Annual Meeting of the American Association of Pharmaceutical Scientists, New Orleans, LA, November 15th, 1999; 7) Roswell Park Cancer Institute, Buffalo, NY, December 14th, 1999.

#### Dr. R. Deeley

1) 21<sup>st</sup> International Congress of Chemotherapy, Birmingham, England, July 1999; 2) 2<sup>nd</sup> FASEB Conference on Transport ATPases. Snowmass, CO, July 7, 1999; 3) Molecular Targets and Cancer Therapeutics Conference, Washington, DC, November 1999.

#### Dr. B. Elliott

1) International Agency of Research on Cancer Symposium on Adhesion and Communication in Growth Control and Cancer, Lyon, France. "c-SRC Kinase is required for HGF-induced Motility and Anchorage-Independent Growth of Mammary Carcinoma Cells", January 20, 1999; 2) Mobix Institute for Molecular Biology and Biotechnology, University of McMaster, Hamilton, "Role of HGF/Scatter Factor and Fibronectin in Survival, Growth and Metastasis of Breast Cancer", April 1999; 3) Department of Anatomy and Cell Biology, University of Miami, Miami, FL, "Role of Hepatocyte Growth Factor and Extracellular Matrix in Mammary Tumour Progression", June 4, 1999; 4) Presentation at CBCRI Meeting - Breast Cancer Research: Reasons for Hope, Toronto, ON "Cooperative Interaction Between Hepatocyte Growth Factor and Fibronectin in Anchorage-Independent Survival and Growth of Breast Carcinoma Cells, June 17-19, 1999.

#### Dr. P. Greer

1) Sunnybrook and Women's College Health Sciences Centre, University of Toronto, Toronto, ON, 1999; 2) Biochem Pharma, Montreal, QC, 1999.

#### Dr. K. Harrison

1) Michener Institute, Clinical Applications of FISH, March 1999.

#### Dr. R. Kisilevsky

1) University of Tennessee Medical Center, Department of Medicine, "Serum Amyloid A and Cholesterol Metabolism", April 1999; 2) University of Leeds, Public Health Unit, Leeds, England, "AA Amyloidogenesis and its Similarity to Transmission of Prion Disorders", May 1999; 3) University of British Columbia, Department of Pathology, Vancouver, BC, "The Biochemistry of Amyloid Formation; Lessons From a Mouse", and "Serum Amyloid A and Cholesterol Metabolism During Acute Inflammation", October 1999.

#### Dr. D. LeBrun

1) Canadian Association of Pathologists Annual Meeting, Calgary, Alberta, "E2a-Pbx1: A story of translocation, transcription and transformation", June, 1999.

#### Dr. D. Lillicrap

1) Ottawa General Hospital, Research Institute, Ottawa, ON, Genetic variability and the quest for markers of a prothrombotic phenotype" May 12, 1999; 2) Royal College Visiting Professor, Medical Grand Rounds, McMaster University Medical Centre, Hamilton, "Genetic variability and the hemostatic balance: the search for markers of a thrombotic tendency", May 20, 1999; 3) Royal College Visiting Professor, Hematology Grand Rounds, McMaster University Medical Centre, Hamilton, "Factor VIII Molecular Science: Diagnosis, Synthetic Product and Sometime cure", May 21, 1999; 4) Canadian Society for Medical Laboratory Science, Congress'99, Toronto, "Inherited Risk Factors for Thrombosis", June 15, 1999; 5) ISTH Immune Tolerance Study Group, 3<sup>rd</sup> Workshop, Palermo, Italy, "Gene Therapy and Factor VIII Antibodies: Hopes and Concerns".October 9, 1999.

#### Dr. S. Ludwin

1) National MS Meeting - New York, January 1999; 2) "Pathology of Oligodendroctyes and Demyelinating Disease" - 6<sup>th</sup> European Congress, Barcelona, Spain. May 1999; 3) European Congress Training and Research in MS - Basle, Switzerland, September 1999; 4) The Myelin Project Annual Meeting - London, England, September 1999.

### Dr. D. Maurice

Gordon Research Conference, Cyclic Nucleotide Phosphodiesterase, Waterville Valley Resort, Waterville Valley, NH, "Regulation of PDE4D3 Targeting: role of PKA- and ERK-mediated Phosphorylation", June 1999;
 Robbarts Research Institute, University of Western Ontario, "Role of Cyclic Nucleotide Phosphodiesterases: Control of Blood Vessel Function", March 1999;
 1<sup>st</sup> Annual Great Lake G-Protein Coupled Receptor Conference, Ivey School of Business, London, ON, "Molecular Basis of Cyclic Nucleotide Metabolism: Role in Terminating Cyclic Nucleotide Signalling", July 1999.

### Dr. M. Raymond

1) Workshop presented at 1998 Canadian Society of Clinical Chemists Annual Scientific Meeting.

### Dr. J. Rossiter

1) Kingston Chapter of the ALS Society of Canada, May 1999.

### Dr. S. SenGupta

1) Cancer Care Ontario Symposium, Toronto, ON, "Hormone Receptor Assessment in Breast Cancer", August 1999.

#### Dr. L. Tomalty

1) Health Tech 99. Leveraging Technology to Improve the Delivery of Healthcare Services, "Real Time Prompting, Using Technology to Educate Health Care Professional While Care is Delivered", Toronto, 1999.

#### Dr. D. Zoutman

1) Central Ontario Professionals in Infection Control Meeting, "Tuberculosis: Preventing Spread in Hospitals and Long Term Care Facilities", February 17, 1999; 2) Kingston, Frontenac, Lennox, and Addington Health Unit, "Pathogenesis, Epidemiology, Control and Prevention of *Clostridium difficile* Associated Diarrhea", June 15, 1999; 3) Grand Rounds, Department of Medicine, "Infectious Diseases Emergencies", July 8, 1999; 4) Department of Ophthalmology, Professor's Rounds, "Pathophysiology and Treatment of Endophthalmitis", October 18, 1999.

# SENIOR STAFF COMMITTEES

# SENIOR STAFF COMMITTEES

**Dr. S. Boag:** Member, Laboratory Information System Prioritization Group, KGH; Member, Kingston Regional Cancer Centre Lung Site Group, KGH; Pathology Rep, Lung Tumour Board, KGH.

**Dr. S. Cole:** Member, Board of Directors, PARTEQ Innovations, Queen's; Member, Principal's Search Committee for VP (Research), Queen's; Member, Pathology Graduate Studies Committee; Member, Pathology Search Committee; Member, Pathology Haust Trust Fund Committee.

**Dr. C. Collier:** Instructional Development Center, "Teacher/Scholar Network" Group; Member, Cross Faculty Teaching Forum Committee, Queen's; Coordinator, TIPS, Queen's; Member, Council on Employment Equity, Queen's; Member, Faculty of Medicine Admissions Committee; Member, Faculty of Medicine TIPS; Coordinator/participant, Journal Club; Coordinator, Clinical Chemistry Review Sessions; Member, PBL Committee; Member, Division of Clinical Laboratory Staff Meeting, KGH; Member, Pathology Postgraduate Education Committee; Director, St. Lawrence College MLT Clinical Year Program.

**Dr. R. Deeley:** Chair, Cancer Research Laboratories; Member, Research Advisory Committee, KGH; Member, Executive Management Committee, KRCC; Research Coordinator, CCO/RCC; Member, Committee for Promotions, Tenure and Reappointment, Oncology.

**Dr. D. Dexter:** Member, Student Progress and Promotion Committee, Queen's; Member, Nominating Committee, Faculty of Health Sciences, Queen's; Director, Point of Care Testing, HDH/KGH; Member, Ambulatory Clinics Committee, KGH; Founder/Member, Special Resources Committee, Le Royer Patrons, HDH; Member, Pathology Finance Committee; Member, General Pathology Residency Programme Committee; Member, Anatomic Pathology residency Programme Committee; Member, Hematopathology Residency Programme Committee; Member, Pathology Consolidated Division of Hematopathology.

**Dr. B. Elliott:** Coordinator, Flow Cytometry and Confocal Microscope Facility; Member, Organization Committee for Research Day for Graduate Students & Clinical Residents, Queen's; Selection Committee for Head, Surgical Oncology; Member, Pathology Graduate Studies Committee; Member, Life Sciences Representative.

**Dr. A. Fletcher:** Team Leader, Queen's Campaign; Member, KGH/HDH Joint Quality and Utilization Improvement Committee; Member, Pathology Continuing Education Committee; Chair, Pathology Quality & Utilization Improvement Committee.

**Dr. S. Ford:** Member, Health, Counselling and Disability Advisory Council; Member, Faculty Undergraduate Promotion and Progress Committee; Member, Faculty Undergraduate Education Committee; Member, Faculty PBL Committee; Member, Faculty J.D. Hatcher Awards Committee; Chair, Faculty Hepatitis B Ad Hoc Committee; Director, Autopsy Service; Member, Pathology Undergraduate Education Committee.

Dr. P. Greer: Member, Pathology Graduate Committee.

**Dr. K. Harrison:** Cross Coverage, CHEO Cytogenetics Laboratory; Consultant, Oshawa Lakeridge Health Centre; Member, LIS Y2K Committee; Member, Pathology Search Committees for Drs. Delisle and Wasan; Member, Pathology PRTCA Committee.

**Dr. D. Hurlbut:** External Member, Faculty GI Residency Training Program; Member, Faculty GI Search Committee; Chair, Pathology AP/GP PGME Committee; Member, GI Site Group, KRCC.

Dr. T. Karnauchow: Member, Hospital Medical Microbiology Laboratory Administrative Committee.

**Dr. R. Kisilevsky:** Member, University Club Board, Queen's; Member, Committee for the Adjudication of the Chancellor's Research Awards; Member, Faculty Board; Member, Pathology Research Advisory Committee.

**Dr. D. LeBrun:** Member, Faculty Board; Member, Clinical Teachers Association; Member, Clinical Hematology Division; Member, Phase I Meeting; KGH Staff Meetings; Member, Anatomic Pathology Committee; Member, Medical Mortality Conference; Member, Graduate Studies Committee; Member, Internal Review of Pathology Programs; Member, Richardson Lab Research Group; Pathology Search Committees for Drs. Giles and Wasan; Queen's Pathology Staff Meeting.

**Dr. D. Lillicrap:** Member, Blood Utilization Committee, KGH; Member, Research Advisory Committee, KGH; Chair, Pathology Research Advisory Committee; Member, Pathology PRTCA Committee; Member, Pathology Search Committee for Dr. Giles' Replacement.

**Dr. S. Ludwin:** Member, University Postgraduate Education Committee; Chairman, Faculty Board; Member, Faculty Council; Medical Director, KGH; Member, KGH Medical Advisory Committee; Member, KGH Planning Steering Committee; Member, Fiscal Advisory Committee; Member, Bioethics Committee, KGH; Member, Department of Pathology Postgraduate Education Committee; Director, Neuropathology Training; Member, Departmental Finance Committee; Member, Pathology Undergraduate Committee.

**Dr. P.N. Manley:** Pathologist-in-Chief, HDH/KGH; Chairman, Dept. of Pathology, Queen's; Member, Pathology Graduate Committee; Member, Pathology Research Advisory Committee; Member, Faculty Council; Member, Faculty Board; Member, SEAMO Governing Committee; Member, SEAMO Finance Sub-Committee; Member, Basic Science Heads; Member, Council of Clinical Heads; Member, School of Medicine Council; Member, KGH Medical Advisory Committee; Member, KGH Medical Advisory Budget Review Committee; Member, Council of Department Heads; Member, CLEO Meeting, KGH; Member, Lab. Admin. Management Committee; Member, Anatomic Pathology Senior Staff Meetings; Chairman, KGH Staff Meetings; Member, Pathology Postgraduate Committee; Chairman, Departmental Search Committee; Chairman, Pathology Finance Committee.

**Dr. D.H. Maurice:** Member, Department of Pharmacology/Toxicology Staff Meetings; Member, Pharmacology/Toxicology Admissions Committee; Member, Pathology Staff Meetings; Member, Pathology PRTCA Committee; Member, Pathology Search Committee to Replace Dr. A. Giles; Member, Garfield Kelly Awards Committee.

**Dr. D. Rapson:** Member, Division of Medical Oncology; Member, Member, Hematopathology/Oncology Division; Member, Pediatric Oncology Joint Practice Care Team; Member, Pediatric Oncology Psychosocial Rounds; Member, Hematology/Oncology Residency Training Committee; Director of Hemostasis, Core Laboratory, KGH; Co-Director, Autologous Blood Transfusion, KGH; Member, Hemophilia Comprehensive Core Group; Member & Vice Chair, Pediatric Oncology Program Committee, KRCC; KGH & Queen's Pathology Staff Meetings.

**Dr. M. Raymond:** Chief, KGH Clinical Chemistry; Member, KGH Information Systems Steering Committee; Member, KGH Isotope Committee; KGH Staff Meetings; Queen's Pathology Staff Meetings; Member, Pathology Finance Committee; Member, LIS Prioritization Committee.

**Dr. J.P. Rossiter:** Member, Neurology Residency Training Committee, Queen's; Member, Neuropathology Residency Training Committee, Queen's; Member, Faculty Life Sciences Curriculum Committee; Member, Postgraduate Medical Education Committee; Member, Electron Microscopy Facility Committee; Coordinator, Department of Pathology Library; Coordinator, Path 410/824 Course; Pathology Staff Meetings, KGH/Queen's.

**Dr. C. Rowlands:** Laboratory Medical Director, Perth & Smiths Falls Community Hospital; Member, Faculty Admissions Committee; Director, Cytology, KGH/HDH; Member, Pathology Residency Training Committee; Member, Pathology Search Committee; Staff Meetings, Queen's/KGH.

**Dr. S. SenGupta:** Medical Director, Kingston Hospitals CLEO; Member, Faculty UMEC Committee; Member, Faculty Phase II Musculoskeletal Course Committee; Member, KGH/HDH Medical Advisory Committee; Member, Ongwanada Hospital Medical Advisory Committee; Member, Pathology Finance Committee; Member, Pathology Search Committee for Dr. Wasan's Replacement; Queen's/KGH/HDH Staff Meetings.

**Dr. L. Shepherd:** Member, Faculty Postgraduate Education Committee; Interviewer, Medical School Admissions; Mentor, Queen's Medical School; Member, Joint Practice for Transplantation and Organ Procurement, KGH; Member, Joint Hospital Advisory Committee on HIV Notification of Blood Recipients; Chair, Advisory Committee on Transfusion Medicine; Member, Division of Hematology; Member, Training Committee, Fellowship Program in Clinical Hematology; Member, Planning Committee for Regional Stem Cell Transplant Programme; Member, Hematological Path Training Program; Chair, Consolidated Division of Hematology; Member, Pathology GP Training Committee; Member, Pathology Anatomical Pathology Training Committee; Chair, PRTCA Committee; Pathology Ad Hoc Search Committee, Hematopathology; Member, Core lab Working Group; Member, Tissue & Tumour Block Retrieval Committee; Member, QA Committee.

**Dr. S. Taylor:** Co-Director, KGH DNA Laboratory; Chief of Service, Laboratory Genetics; Member, Biohazard Safety Committee, Queen's; Member, Faculty QUFA Promotions/Tenure Committee; Member, Kingston Regional Cancer Centre Research Committee; Member, KGH Foundation Grants Committee; Member, Clare Nelson Bequest Fund Committee, KGH; Member, Pathology Search Committee for Dr. Delisle's replacement; Queen's/KGH/HDH Staff Meetings.

**Dr. L. Tomalty:** Member, Technology in Learning Committee, Associate Dean, CME; Queen's; Coordinator, Phase IIA, Faculty of Medicine; Member, Faculty Undergraduate Medical Education Committee; Member, School of Medicine Council; Member, Faculty Council; Member, Faculty Board; Member, Association of Canadian Medical Colleges; Member, Administrative Committee, Directors/Associate Deans; Member, OMA/MOH Guideline Advisory Committee; Member, Infection Control Committee; Member, Antibiotic Use Subcommittee; Associate Director, Department of Medical Microbiology; Member, Administrative Committee, Department of Medical Microbiology; Chair, Hospital Administrative Committee; Member, Pathology Postgraduate Education Committee; Member, Pathology Finance Committee; Pathology LIS Implementation Working Group.

Dr. I. Young: Director, Division of AP.

**Dr. D. Zoutman:** Chair, Faculty Phase IIA Infectious Diseases Course Committee; Chair, KGH/HDH Joint Infection Control Committee; Member, Joint KGH/HDH Antibiotic Utilization Committee; Member, KGH Standing Committee on Environmental Management; Member, SMOL Professional Advisory Committee; Member, Accreditation Steering Committee; Member, Microbiology Laboratory Management Committee; Chair, Infection Control Services Committee; Member, Medicine Research Grant Review Committee.

# EXTERNAL COMMITTEES

**Dr. S. Boag:** Head, Pathology & Lab Medicine Network, Cancer Care Ontario Southeastern Regional Council; Member, Laboratory Medicine Program Committee, Cancer Care Ontario.

**Dr. S. Cole:** Member, Board of Directors, American Association for Cancer Research; Member, Education Committee, AACR; Member, NCI-NIH Site Review Team, Moffitt Cancer Center, Tampa, FL; Member, Advisory Committee on Research (ACOR), NCIC; Member, ACOR Subcommittee for Travel Awards, NCIC; Member, Research Advisory Committee, Cancer Care Ontario Member, Genomics Initiative Advisory Board, Ontario Research and Development Challenge Fund; Member, Program Committee, Conference on Molecular Targets and Cancer Therapeutics, AACR-NCI-EORTC.

**Dr. C. Collier:** Chair, Professional Development Program, Canadian Society of Clinical Chemists; Chair, Professional Affairs Division, CSCC; Councillor, Ontario Society of Clinical Chemists.

**Dr. R. Deeley:** Head, Division of Research, Cancer Care Ontario; Member, Scientific Advisory Committee, MDS Inc., Member, Management Committee, Ontario Cancer Genetics Network.

Dr. D. Dexter: Director, MDS Laboratories.

**Dr. B. Elliott:** Member, MRC Maintenance & Equipment Grant Panel; Member, NCIC Grant Panel B; Member, CBCRI IDEA Grant Panel; External reviewer, MRC and Alberta Heritage Board.

Dr. S. Ford: Member, Cardiovascular Tumour Panel, Canadian Reference Center for Cancer Pathology.

**Dr. K. Harrison:** Member, Credential Committee, CCMG; Chair, Standing Fellowship Committee, CCMG; Member, Conference Planning Committee, AGCO Conference 2000.

**Dr. R. Kisilevsky:** Member, Scientific Advisory Board, Neurochem Inc.; Member, Clinical Advisory Board, Neurochem Inc.; Member, Advisory Committee, IXth International Symposium on Amyloidosis; Member, Scientific Advisory Board, Institute for the Study of Aging.

**Dr. D. LeBrun:** Member, Organizing Committee for the OAP; Member, American Society of Hematology; Member, Canadian Association of Pathologists; Member, Canadian Medical Protective Association; Fellow, RCPSC; Member, American Association for the Advancement of Science; Member, Ontario Medical Association; Member, Canadian Society for Clinical Investigation; Member, OAP.

**Dr. D. Lillicrap:** Chairperson, Steering Group, Association of Hemophilia Clinic Directors of Canada; Chairperson, vonWillebrand Disease Scientific Subcommittee, Association of Hemophilia Clinic Directors of Canada; Member, Factor IX Scientific Subcommittee, Association of Hemophilia Clinic Directors of Canada; Member, Canadian Hematology Society; Member, American Hematology Society; Member, American Society of Human Genetics; Member, Canadian Hemophilia Society; Member, World Federation of Hemophilia; Member, International Society of Thrombosis and Hemostasis; Member, Association of Hemophilia Clinic Directors of Canada; Member, Association of Hemophilia Society of Human Genetics; Member, American Hematology Society.

**Dr. S. Ludwin:** Chairman, MAC, Canadian Multiple Sclerosis Society; Canadian Representative, US National Multiple Sclerosis Society; Myelin Project Board; President Elect, International Society Neuropathology; Member, Provincial Neurology Disease Site Group on Brain Cancer.

**Dr. P. Manley:** Member of Graduate Studies Committee, Association of Pathology Chairs; Member, International G.I. Club; Member, Ontario GI Club; Member, CAP (US); Member, OMA; Member, OAP; Chair, Ontario Association of Academic Heads; Secretary/Treasurer, Canadian Chairs of Pathology; Member, Experimental Biology; Member, North East Pathology Chairs; Member, Laboratory Review Committee, OHA.

Dr. D. Rapson: Member, South Eastern Regional Bone Marrow Transplant Planning Group.

**Dr. M. Raymond:** Vice-Chair, Committee for Conjoint Accreditation, Canadian Medical Association; Chair, Medical Laboratory Program Advisory Committee, St. Lawrence College; Past President, Ontario Society of Clinical Chemists; Treasurer, Canadian Society of Clinical Chemists.

**Dr. C. Rowlands:** Member, Laboratory Proficiency Testing Program, Cytology Committee; Member, Ontario Quality Assurance Program in Gynecologic Cytology; Council Member, Chair of Organizing Cte for 1999 Meeting, Ontario Association of Pathology; Council Member, OAP.

Dr. S. SenGupta: President and Chair of Executive Committee, Ontario Association of Pathologists; Chair, Tariff Committee, Ontario

Medical Association; Member, Section on Laboratory medicine Executive, Ontario Medical Association; RBRVS Lead Representative for Laboratory Medicine, Ontario Medical Association; Member, Examination Board in AP, RCPSC; Member, Committee with Subcommittee Involvement, Ontario Breast Assessment Collaborative Group; Member, AP Working Group, LPTP.

**Dr. L. Shepherd:** Chair, Hematopathology Examination Board, RCPSC; Nucleus Member, Hematopathology Specialty Committee, RCPSC; Member, Laboratory Medicine Advisory Committee, RCPSC; Past Chair, Section of Hematopathology, CAP; ISO Rep from CAP; Member, Laboratory Proficiency Testing Program, Immunology Committee.

**Dr. S. Taylor:** Chair & Secretary, Ontario Ministry of Health, Molecular Genetics Study/Working Group on Molecular Genetics Diagnostic Services; Chair, Fellowship Review Committee, MOH; Chair, Laboratory Directors Committee, Ontario Cancer Genetics Network; Member, Management Committee, Ontario Cancer Genetics Network; Examining Committee Member, Canadian College of Medical Genetics.

**Dr. L. Tomalty:** Examiner, Canadian Society for Laboratory Technology; Symposium Organization Committee, Canadian College of Microbiology; Counsellor, Canadian College of Microbiology.

**Dr. D. Zoutman:** Member, Corrections Canada Infectious Diseases Inmate Advisory Committee; President, AMMO; Secretary, Laboratory Medicine Section, Council of the Ontario Medical Association; Member, National Surgical Infection Surveillance Program, Canadian Hospital Epidemiology Committee; Member, Community & Hospital Infection Control Association of Canada, Standards & Guidelines Committee; Physician Director, Community and Hospital Infection Control Association of Canada; Member, Strategic Planning for Infection Control Guidelines, Health Canada; Member, Laboratory Proficiency & Testing Program, Bacteriology Committee.

EDITORIAL BOARDS AND GRANT REVIEW COMMITTEES

# OTHER SCHOLARLY ACTIVITY EDITORIAL BOARDS AND GRANT REVIEW COMMITTEES

(Editorship of a journal, referee for journal or granting body, posters, productions, etc.)

Dr. S. Boag: Reviewer for Clinical Cancer Research.

**Dr. S. Cole:** Reviewer for: Dutch Cancer Society, MRCC, NCIC, NIH USA, Ontario Research and Development Challenge Fund; Referee for: Biochemical Pharmacology; Biochimica Biophysica Acta; British Journal of Pharmacology, Cancer Research, Carcinogenesis, Clinical Cancer Research, Journal of Biological Chemistry, Journal of experimental Medicine, Molecular Biology of the Cell, Molecular Pharmacology, Nutrition and Cancer; Journal Boards for: Cancer Research, Journal of Pharmacology and Experimental Therapeutics; Tumori, International Journal of Oncology.

Dr. C. Collier: External Reviewer for Clinical Biochemistry.

**Dr. R. Deeley:** Associate Editor, Biochem & Cell Biology; Referee for: Biochem. Pharmacol. Cancer Research, European Journal of Biochemistry, FASEB, Genomics, Molecular Pharmacology, Journal of Biological Chemistry, Biochemistry, Nature Medicine; Reviewer for: MRC, NCI, Netherlands Cancer Society.

**Dr. B. Elliott:** External Reviewer for: Alberta Cancer Board, MRC; Annual Report External Reviewer for USAMRMC; Referee for: Proc. Natl. Acad. Sci., J. Cell Biol., Oncogene, J. Cell Science, Mol. Cell Biol.

Dr. S. Ford: Referee for Journal of Rheumatology.

**Dr. P. Greer:** Member, Grants Review Committee for: NCIC, Cancer Research Society Inc., Molecular Genetics; External Reviewer for: MRC, The Israel Science Foundation, US-Israel Binational Science Foundation, Ontario Research and Development Challenge Fund; External Reviewer for Journals: Molecular and Cellular Biology, Oncogene, Developmental Genetics; Cell Growth and Differentiation; Genome.

Dr. K. Harrison: Referee for Clinical Genetics Journal.

Dr. D. Hurlbut: Judge for Resident Platform Presentations, OAP.

**Dr. R. Kisilevsky:** Editorial Boards for: Amyloid, Int. Rev. Exp. Pathol.; External Referee for Grants from: MRC, Alzheimer's Society of Canada, Alzheimer's Society of USA, Burrough's Welcome Foundation; Department of Veteran's Affairs USA, VA Medical Research; Referee for Journals: J. Neurochemistry, Proc. Natl. Acad. Soc (USA), Am. J. Pathology, Scand. J. Immunology, J. Immunol, Amyloid, Nature Medicine, J. Histochemistry & Cytochemistry.

Dr. D. LeBrun: Grant Review Panels: NCIC, KGH Pathology Clinical Trust Fund; Ad Hoc Reviewer for: MRC; BLOOD.

**Dr. D. Lillicrap:** External Reviewer, MRC; Member, Editorial Board: Hemophilia Forum, Clinical and Laboratory Hematology; Chairperson, Review Committee, H & S Foundation; Review Committee, HSFO, Research and Development; Reviewer for: British Journal of Hematology, Thrombosis and Hemostasis, Blood Hemophilia.

**Dr. S. Ludwin:** Chairman MAC, Canadian National Society of Multiple Sclerosis; Editorial Advisory Board, Neuropathology and Applied Neurobiology; Editorial Board, Acta Neuropathological; Editorial Board, Glia; Editorial Board, International Journal Surgical Pathology.

**Dr. D.H. Maurice:** Reviewer for: Heart & Stroke Foundation of Canada and MRC; Referee for the Following Journals: Journal of Biological Chemistry; Molecular Cellular Biology, Canadian Journal of Physiology and Pharmacology Journal of Vascular Research.

Dr. J. Rossiter: External Referee for: Heart and Stroke Foundation and the ALS Society of Canada.

Dr. S. SenGupta: Editor-in-Chief, OAP.

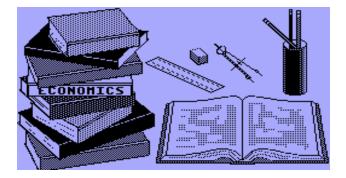
Dr. S. Taylor: Reviewer, MRC/PMAC; Reviewer, Queen's Health Sciences Journal Faculty Review.

**Dr. L. Tomalty:** Grant Reviewer: Department of Medicine Research Committee, University of Western Ontario Academic Development Fund.

**Dr. D. Zoutman:** Member, Editorial Board, Canadian Journal of Infection Control; Referee for: Canadian Journal of Infectious Diseases, Infection Control and Hospital Epidemiology, Physicians Services Inc. Foundation Grant Award, Canadian Medical Association

Journal.

FULL PAPERS PUBLISHED AND IN PRESS



## FULL PAPERS PUBLISHED AND IN PRESS

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**Cole, S.P.C.** Re: Characterization of MOAT-C and MOAT-D, new members of the MRP/cMOAT subfamily of transporter proteins. J. Nat. Cancer Inst. 91: 888, 1999. (letter).

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Mirski, S.E.L., Sparks, K.E., Yu, Q., Lang, A.J., Jain, N., Campling, B.G. and **Cole, S.P.C.** A truncated cytoplasmic topoisomerase IIa in a drug resistant lung cancer cell line is encoded by a *TOP2A* allele with a partial deletion of exon 34. Int. J. Cancer 85: 534-539, 2000.

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Machiels, J.P., Govaerts, A.S., Guillaume, T., Bayat, B., Feyens, A.M., Lenoir, E., Goeminne, J.C., **Cole, S.P.C.**, **Deeley, R.G.**, Caruso, M., Bank, A., Symann, M., and D'Hondt, V. Retrovirus-mediated gene transfer of the human multidrug resistance-associated protein into hematopoietic cells protects mice from chemotherapy-induced leukopenia. Hum. Gene Ther. 10(5): 801-811, 1999.

Stride, B.D., Cole, S.P.C., and Deeley, R.G. Localization of a substrate specificity domain in the multidrug resistance protein. J. Biol.Chem. 274: 22877-22883, 1999.

Prechtl, S., Roellinghoff, M., Scheper, R., Cole, S.P.C., Deeley, R.G., and Lohoff, M. The multidrug resistance protein (mrp) 1 - a functionally important activation marker for murine Th1 cells. J. Immunol. (in press 1999).

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Hipfner, D.R., Mao, Q., Qiu, W., Leslie, E.M., Gao, M., **Deeley, R.G.**, and **Cole, S.P.C.** Monoclonal antibodies that inhibit the transport function of the 190 kDa multidrug resistance protein, MRP: Localization of their epitopes to the nucleotide binding domains of the protein. J. Biol. Chem. 274: 15420-15426, 1999.

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Soboleski, D., Mehta, S., Kamal, I., **Dexter, D.**, Poenaru, D. Hemangioendothelioma of the adrenal gland in a 4-month male infant 172(e2). *URL: http://www.arrs.org.ajr/case of the week*.

Fehlner-Gardiner, C.C., Cao, H., Boeters, L., Nakamura, T., **Elliott, B.E.**, Uniyal, S., and Chan, B.M.C. A characterization of the functional relationship between hepatocyte growth factor and mouse bone marrow-derived mast cells. Differentiation, 65-27-42, 1999.

Tuck, A.B., **Elliott, B.E.**, Hotal, C., Tremblay, E., and Chambers, A.F. Osteopontin-induced, integrin-dependent migration of human mammary epithelial cells involves activation of the hepatocyte growth factor receptor (Met). J. Cell. Biochem. (in press)

**Ford, S.E.** Congenital cystic tumours of the atrio-ventricular node: successful demonstration by an abbreviated dissection of the conduction system. Cardiovascular Pathology Vol. 8., No. 4, July/August 1999:233-237.

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Barclay, R.L., Depew, W.T., Taguchi, K., **Hurlbut, D.J.** Ulcerative colitis of the appendix ("Ulcerative appendicitis") mimicking acute appendicitis. Report of a case. Can J Gastroenterol (In Press).

Inoue, S., Kuroiwa, M., and **Kisilevsky, R**. Basement Membranes, Microfibrils and -amyloid Fibrillogenesis in Alzheimer's Disease: High Resolution Ultrastructural Findings Brain Res. Rev. 29: 218-231, 1999.

Woodrow, S.I., Stewart, R.J., **Kisilevsky, R**., Gore, J., and **Young, I.D.** Experimental AA Amyloidogenesis is Associated with Differential Expression of Extracellular Matrix Genes Amyloid: Int.J.Exp.Clin.Invest. 6: 22-30, 1999.

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Site on Serum Amyloid A. Amyloid: Int.J.Exp.Clin.Invest. 6: 37-47, 1999.

Kisilevsky, R., Lemieux, L., Boudreau, L., Yang, D.S., and Fraser, P. New Clothes for Amyloid Enhancing Factor (AEF): Silk as AEF. Amyloid: Int.J.Exp.Clin.Invest. 6: 98-106, 1999.

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Begbie, M., Mueller, C., **Lillicrap, D.** Enhanced binding of HLF/DPB heterodimers represents one mechanism of PAR protein transactivation of the factor VIII and IX genes. DNA and Cell Biology, 18:165-73, 1999.

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Canadian Hospital Epidemiology Committee (includes **D. Zoutman**). Laboratory and infection protocols for vancomycin-resistant enterococci (VRE): A survey of CHEC facilities. Abstract No. P49 presented at the 67<sup>th</sup> Conjoint Meeting on Infectious Diseases (CACMID), Edmonton, AB, November 3, 1999.

Canadian Hospital Epidemiology Committee (includes **D. Zoutman**). The evolution of methicillin resistant Staphylococcus aureus (MRSA) in Canadian hospitals: four years of national surveillance. Abstract presented at the International Meeting on Resistance to Antimicrobial Agents, Monte Carlo, Monaco, October 20-23, 1999.

Canadian Hospital Epidemiology Committee (includes **D. Zoutman**). Molecular characterization of Canadian MRSA isolates: Identification of four epidemic strains. Abstract presented at the 39<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), San Francisco, September 26-29, 1999.