QUEEN'S UNIVERSITY DEPARTMENT OF PATHOLOGY



FACULTY OF MEDICINE ANNUAL REPORT 2000

DR. PAUL MANLEY, M.D. - CHAIRMAN

DEPARTMENT OF PATHOLOGY 2000 ANNUAL REPORT

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(Report written April 2001)

FACULTY, ADMINISTRATION AND LABORATORY MANAGERS AND SUPERVISORS

DEPARTMENT OF PATHOLOGY FACULTY

2000

PROFESSOR AND HEAD	Dr. Paul Manley
PROFESSORS	Dr. A.F. Clark* Dr. S. Cole Dr. R. Deeley Dr. B. Elliott (On sabbatical July 1, 1999-June 30, 2000) Dr. J.C. Kennedy* - retired June 30, 2000 Dr. R. Kisilevsky Dr. D. Lillicrap Dr. S. Ludwin (On sabbatical Sept. 1, 1999-August 31, 2000) Dr. P.G. Young*
ASSOCIATE PROFESSORS	Dr. D. Dexter Dr. W.A. Fletcher Dr. S. Ford Dr. P. Greer Dr. M. Khalifa* Dr. D. LeBrun Dr. D. LeBrun Dr. D. Maurice (On sabbatical July 1, 2000-June 30, 2001) Dr. C. Mueller* Dr. C. Mueller* Dr. L. Mulligan* Dr. L. Mulligan* Dr. M. Petkovich* Dr. L. Raptis* Dr. S. SenGupta Dr. L. Shepherd Dr. S. Taylor Dr. L. Tomalty* Dr. I. Young Dr. D. Zoutman
ASSISTANT PROFESSORS	Dr. M. Arquint Dr. A.S. Boag Dr. C. Collier Dr. S. Davey* Dr. G. Evans* Dr. K. Harrison Dr. D. Hurlbut

ASSISTANT PROFESSORS

(cont'd)

Dr. T. Karnauchow Dr. D. Lee* Dr. D. Rapson (0.7 part-time) Dr. M. Raymond Dr. J. Rossiter Dr. C. Rowlands

LECTURER

Dr. J. Raymond

ADJUNCT ACADEMIC GROUP I

Dr. J. Ancsin Dr. D. Connor Dr. A. Duncan Dr. D. Haust Dr. S. Inoue Mr. L. Kennedy Dr. A. Lagarde Mr. D. Piper Dr. D.M. Robertson, Emeritus Dr. J. Samis Dr. G. Twemlow Dr. V. Walley

ADMINISTRATION

Laboratory Manager Administrative Assistant Mr. David PiperMrs. Marg McIlroy

LABORATORY MANAGERS AND SUPERVISORS

Anatomic Pathology Chemistry Cytogenetics Microbiology CLEO Mr. Dave More
Mrs. Mary Waugh
Ms. Anne Hanley
Ms. Linda Fidler
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. Residency numbers are at their lowest levels in 30 years in Canada and we are facing a significant shortage of academic pathologists imminently.

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, 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 Primary appointment in Pathology those with joint appointments in Pathology whose home department is elsewhere are not included in these statistics). In comparison to other medical schools or on a FTE basis, this puts our Department at the pinnacle 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 subspecialist'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 15 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 and to Perth/Smiths Falls in the North.

Our last major project which has been successfully completed, 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 10th 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, will be completed by the laying of corridor carpeting. This floor has integrated 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 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 to accommodate our increased Forensic workload. We are planning minor renovations to the autopsy/forensic facility which was developed in 1986 and considered to be the best functionally designed unit in the province during the 1990s.

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 and we publish a quarterly informative newsletter.

Since 1991, remote printing of reports and on-line inquiry capability has been available for clients. Currently, nine sites have electronic access to referred-in test results and all have Web access to our Laboratory Users Handbook and our evolving Web site. 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.

CLINICAL LABORATORY OUTREACH PROGRAM

The Laboratory Outreach Program is a unit of the Clinical Laboratory Services of KGH. The staff include a custormer service co-ordinator (Ms. C. Skinner), a customer support technologist (Ms. C. Greenwood), a manager (Mr. D. More) and a medical director (Dr. S. SenGupta). Laboratory testing is performed in the KGH clinical laboratories. Billing and computer support services are provided through KGH.

Through 2000, our eleventh year of formal operation, we continued to provide our clients with reference testing, pathology services and scientific/technical support, continuing education activities, a newsletter and regular on-site medical direction of community hospital laboratories.

Several highlights of interest occurred during the year.

- **S** Our Reference Testing and Pathology Services contracts with Perth and Smiths Falls District Hospital were renewed, for five years.
- Our present with District Central East 1 hospitals was extended to September 2001. This contract expanded our catchment area to 9 additional sites including Oshawa, Whitby, Peterborough, Cobourg and others.
- **S** CFB Kingston renewed its relationship with us for test referral and now orders its related supplies direct from KGH stores.
- We expanded our ability to upload text report files directly into the Perth/Smiths Falls Meditech patient care system to include Bone Marrow reports, a major improvement in turnaround time and communication
- **S** We published a manuscript about the Outreach Program, "Promoting, Building and Sustaining a Regional Laboratory Network in a Changing Environment" in a peer-reviewed medical journal: Clinical Leadership & Management Review (Sept/Oct 2000)
- Referral testing from the Brockville Dialysis unit began to flow through Brockville General Hospital to us.

The newest faculty member of the Department of Pathology, Dr. Monique Arquint, replaced Dr. Rowlands as the visiting pathologist in Perth and Smiths Falls in September.

Overall volumes of testing are stable, increases in surgical referrals from Perth and Smiths Falls were approximately balanced by reduced referrals from hospital sites in Picton and Trenton, which were merged into Quinte Healthcare Corporation and now refer many tests to Belleville. PERSONNEL AWARDS AND SIGNIFICANT EVENTS



PERSONNEL AWARDS AND SIGNIFICANT EVENTS

AWARDS

Dr. Susan Cole was elected Fellow of the Royal Society of Canada.

AESCULAPIAN SOCIETY AWARD FOR EXCELLENCE IN TEACHING

Congratulations to **Dr. David Dexter** who has received the 1999-2000 Aesculapian Society Award for Excellence in Teaching (Phase I).

CANADIAN SOCIETY OF CLINICAL CHEMISTS 2000 AWARD FOR EDUCATION EXCELLENCE

This was presented to Dr. Christine Collier and the Professional Development Program.

YVETTE MAYENT RESEARCH AWARD & INSERM/CRM AWARD AND TRAVEL GRANT.

Dr. Bruce Elliott received the following sabbatical research fellowships while on sabbatical and a Visiting Scientist in the laboratories of Drs. D. Louvard and J.P. Thiery at the Curie Institute, Paris, France:

DR. SAMUEL LUDWIN

Dr. Ludwin is President of the International Society of Neuropathology, and Chairman, MAC of the Canadian Multiple Sclerosis Society.

ROBERT PRENTICE AWARD - RESIDENT PATHOLOGY TEACHING

Pathology Residents were pleased to present **Lloyd Kennedy** with the Robert S.A. Prentice Award for excellence in teaching.

ONTARIO HEART & STROKE FOUNDATION

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

DR. CECIL HARRIS AWARD

Dr. David Lillicrap is the recipient of the Dr. Cecil Harris Award from the Canadian Hemophilia Society for "Services to Hemophilia Research", November 2000.

GORDON RESEARCH CONFERENCE

Dr. Donald Maurice was elected Associate Chair for the 2002 Gordon Research Conference on "Cyclic Nucleotide Phosphodiesterases" to be held at Waterville Valley Resorts, Waterville Valley, NH, USA. He was also elected Chair for the 2004 Gordon Research Conference on "Cyclic Nucleotide Phosphodiesterases" to be held at Il Ciocco, 55020 Castelvecchio Pascoli, Lucca, Italy.

2000 R.S.A. PRENTICE AWARD

Drs. Tim Childs and Jason Sack jointly received this award for the best presentation by a pathology resident.

SIGNIFICANT EVENTS

Drs. David Dexter, Sally Ford, David LeBrun, Sandip SenGupta, Lois Shepherd and Dick Zoutman all received Tenure in the year 2000.

Drs. John Rossiter and David LeBrun were promoted to Associate Professor.

Drs. Karen Harrison and Dilys Rapson were reappointed for a further 3 years; **Dr. David Hurlbut** for a further 5 years.

Bruce Elliott ended his sabbatical at the Institut Curie in Paris in the year 2000. Bruce was working on the role of cytoskeletal proteins in HGF-induced cell survival growth and migration. Bruce was supported in his sabbatical leave by a sabbatical research award from the Curie Institut and from the MRC/INSERM.

Samuel Ludwin ended his sabbatical at the National Institutes of Health in Bethesda, Maryland with an internationally acclaimed group working on Multiple Sclerosis.

David M. Robertson, a past Head of the Department, our most active Emeritus Professor and an internationally acclaimed neuropathologist occupied Sam Ludwin's office during his sabbatical complementing John Rossiter in neuropathology, and providing expertise in ophthalmic pathology.

Enrichment Mini-Course 2000

by Carla Cuthbert

During the month of May, Queen's University was again host to over 2000 visiting students who participated in the High School Enrichment Mini-Course (EMC) program. The aim of the EMC program was to expose gifted high school students to a wide variety of disciplines (a total of over 50 courses this year) and to give them some insight into the life-style of University students. This endeavour was organized by the Division of Continuing and Distance Studies and is increasing in popularity among the participating school boards.

Three new courses in the area of Health Sciences were offered this year, bringing the number of courses available in this field to eight. Of relevance, the **Cancer Research** course was taught by Mario Muredda and Deborah Greer while the new **Molecular Biology: Genetics** course had Suzan Abu-Abed and Glen Maclean as its instructors.

Pathology: An Inside Look, was the most sought after course this year and was again coinstructed by Carla Cuthbert and Drs. Tim Childs and Jason Sack. Each week, forty-five students were rotated through either large group or small group sessions, covering aspects of cell injury and the fundamentals of inflammation and repair. The students had significant hands-on exposure to relevant pathology specimens and 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 rivetting talk on Forensic Pathology while Dr. LeBrun

and Dr. Rossiter both provided insights on being both a Pathologist and Researcher. Students were also able to visit the Anatomy Museum, the Autopsy Suite and had a brief tour of the Richardson Research Laboratories.

Based on suggestions from last year's students, two new segments were offered. Lloyd Kennedy was asked to do a demonstration on brain-cutting and this was the first exposure the students had to handling specimens. A segment called Team Medicine was also introduced this year and featured Dr. Jen Carpenter (Emergency Medicine), Dr. Mike Rooney (General Surgery) and Dr. Annette Polanski (Radiology). The aim here was to demonstrate how each of the different specialists in the hospital interact and participate in the diagnosis of a patient who comes in through the Emergency Department.

Queen's Pathology Alumni Breakfast at the CAP/OAP Joint Meeting, Ottawa, June 28, 2000 This is the 2nd Annual Breakfast meeting of the Queen's Pathology Alumni Group. Rocke Robertson's prowess as a digital photographer captures our intimacy and good cheer.

As I wrote the legend, I realized, appearances to the contrary, that I was the most senior member present and that our residents have accomplished careers and unique and also delightful personalities, which a free breakfast tends to accentuate.

They provide ample evidence of the strength of our general pathology program at populating multiple



smaller urban centres around the province. Until next year in Quebec City.

I-r: Paul Manley, Hudson Giang (Lindsay), Julie Schatz (Markham), P.C. Shah (Strathroy), Vivian Frenkel (Ottawa), Manisha Lamba (Ottawa), John Lentz (Toronto East General), Allison Collins (Peterborough)
Photographer Rocke Robertson (Barrie).

The 1st Nathan Kaufman Lectureship On May 8th and 9th we celebrated the contributions of Dr. Nathan Kaufman, the Chair of our

Department from 1967-79. We invited Dr. Errol Friedberg, an Anatomic Pathologist and premier researcher in DNA repair to give the First Kaufman Lecture, which was followed by a reception at the University Club. The two day visit was scientifically and socially stimulating. The brochure describing the lecture is attached contains bios of both Dr. Kaufman and Dr. Friedberg. While he was here Dr. Friedberg took the time to meet with Faculty and students.

We are ending this millennial year 2000 with a final flourish by completing our last major projects in the Kingston Hospitals Laboratory. In the last three months we have begun the renovations of our final remaining floor of laboratory space on Douglas 4. It will house our entire laboratory genetics program including DNA Diagnostics, Cytogenetics and Biochemical Genetics and the offices of all related faculty

who will be in appropriate close functional proximity to research space on Richardson 3-5 and Pediatrics on Connell 4. There has been a continuing genetics expansion, especially in DNA testing, with the recent acquisition of a new DNA sequencer and a new program granting for predictive cancer testing.

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 and is considered to be the best functionally designed unit in the province.

Our last major project of the year, 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 10th 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.

Our Laboratory has grown on the foundation of the KGH laboratory developed over the last 50 years in the Douglas Wing. Through appropriate serendipity we are celebrating Dr. Bud Kipkie's development and directorship of the clinical laboratory from 1950-80 on September 12th, the date of his 85th birthday. A portrait of Bud will be displayed on Douglas 2 and will be joined in the future by those of other directors of laboratory of both KGH and HDH.

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 80 students.

Phase II Pathology is given after Phase I to 2nd year medical students as a course combined with many other disciplines. Enrolment is 80.

Rehabilitation Medicine 225 (2000) This course was created in 1999 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 ran for four hours in January 2000 and two in March 2000. Dr. SenGupta, the Coordinator, as well as Drs. Tim Childs, David Dexter, Paul Manley and John Rossiter 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. Thirty-six undergraduate students and 2 graduate students enrolled in this course in 2000. 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 were reviewed by the Co-ordinator and instructors in February, 2000 in response to the submitted course/instructor evaluations from the students.

Pathology 499(formerly Path 420) is a full credit thesis project course co-ordinated by Dr. David Lillicrap and Dr. Robert Kisilevsky. 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 2000-01). 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.

GRADUATE PROGRAMME

The Graduate Programme in the Department of Pathology is administered by the Graduate Programme Committee. The Committee consists of four 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 Programme and chaired the Department of Pathology Graduate Committee in 2000. Other faculty members were Drs. Susan Cole, Peter Greer and David LeBrun. The student representatives until July 1, 2000 were Miss Deb Greer and Mr. Jordan Hansford. Annie Killoran and Glenn MacLean assumed these positions for the 2000/2001 academic year. The Committee met on a monthly basis to make decisions on admissions; review student progress; discuss Comprehensive topics; review membership of Comprehensive, Master's and Doctoral examining committees; and rate and recommend students for scholarships and awards.

Twenty-nine students were registered during the 2000 calendar year. Eighteen were registered in the Doctoral Programme and eleven in the Master's Programme. One Master's student, Jordan Hansford, and three Doctoral students (Mian Gao, Angela Keightley and Leah Young) defended their theses in 2000. Chris Davidson successfully defended his comprehensive examinations. Brian Brown, Deb Greer and Adina Vultur were successful in the defence of their Mini-Master's theses and were promoted directly to the PhD Program.

Department of Pathology graduate students were very successful in competitive award competitions in for the 2000/01 academic year. Six graduate students were awarded Ontario Graduate Scholarships (Melissa Carter, Deborah Greer, Lee O'Brien, Yotis Senis, Bob St. Onge, Jennifer Struthers, Peter Truesdell). An NSERC Scholarship was awarded to Adina Vultur. Bob St. Onge was the recipient of an NCIC award. Brian Brown received an Ontario Graduate Scholarship in Science & Technology, and was also awarded the 2000 Jeremy Nesheim Memorial Award by the Department of Pathology. MRC Studentships were held by Suzie Abu-Abed and Chris Davidson. Queen's Graduate Fellowships were awarded to Martin Kang and Dawei Zhang; a McLaughlin Fellowship was given to Glenn MacLean.

Carla Cuthbert, a PhD graduate student in Dr. Lillicrap's Lab received a two year Ministry of Health Laboratory Genetics Fellowship, July 1, 2000-June 30, 20002 and is training in Biochemical Genetics at HSC.

In the calendar year 2000 the Graduate Programme processed approximately 150 requests for application material and/or information. About half of these were handled by electronic mail. Fifteen applications were received and processed resulting in nine students being conditionally accepted and of those, four new students being accepted by supervisors in 2000.

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. The Pathology Graduate Studentship competition has been discontinued until further notice. 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 a good overview of Pathology. The course will be run again in 2001.

GRADUATE STUDENT PRESENTATIONS:

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

Ms Leah Young	American Association of Cancer Research (AACR) Annual Meeting, April 1-5, San Francisco, CA "Multidrug Resistance Proteins MRP1, MRP2 and MRP3 in Lung Cancer Cell Lines and Patient Tumour Samples"
Mr. Brian Brown	The 3 rd Annual Meeting of the American Society of Gene Therapy, May 2000 "Targeting a Single Nucleotide Polymorphism at the Prothrombin 20210 Locus Using an RNA/DNA Oligonucleotide"
Mr. Chris Davidson	World Alzheimer Congress 2000, July 9-18, Washington, DC "Characterization of the Binding Interaction Between A β and Heparin/Heparan Sulphate"
Mr. Yotis Senis	2000 Annual Meeting of the American Society of Hematology, December 1-5, 2000 "Demonstration of fps/fes and fer cytoplasmic nonreceptor protein-tyrosine kinases in platelets and their involvement in thrombin and thrombopoietin receptor signalling"
Ms Adina Vultur	Oncogene Meeting 2000, San Diego, California "The role of HSp89 $\alpha\Delta N$, a new member of the Hsp90 family, in signal transduction and neoplastic transformation"

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 2000.

<u>Seminar Title</u>
Mismatch repair in S.pombe
DNA damage dependent interaction of hRad9 and BRCA1
Retinoic acid metabolism
Molecular Characterization of Smith-Magenis Syndrome
Characterization of the $GFR\alpha$ -1 promoter
Characterizing the 3' splice variants of the RET proto-oncogene
Elucidating the role of the fps proto-oncogene in hematopoiesis through the
use of models
Screening in yeast for E2a interactive proteins using the Ras
recruitment system
A study of the role of HGF in Src activation using phospho-specific
Src antibodies
Activation of Raf by a chaperone variant
The Fps tyrosine kinase and its role in angiogenesis
Membrane topology of human multi-drug resistance protein 1
(MRP1)
Investigating the role of Uvel in eukaryotic mismatch repair
Evaluation of a novel method of site directed gene repair
Functional analysis of mutant murine and human multi-drug
resistance protein (MRP1)
Hydrodynamic delivery of factor VIII transgenes to mice: tissue
distribution, magnitude and duration of expression
P450 RAI2, a novel retinoic acid metabolizing cytochrome: cloning
and embryonic expression

Three graduate students were nominated by the Department of Pathology Graduate Committee for oral presentations at the Third Annual Meeting for Basic & Clinical Research Trainees in the Faculty of Health Sciences at Queen's University. They were:

Mr. Jordan Hansford	The complex organization of the $GFR\alpha$ -1 gene
Mr. Bob St. Onge	Cell cycle regulation of the hRAD9 protein by the ubiquitin
	proteolytic pathway
Mr. Kevin Weigl	Topology studies of the multidrug resistance protein 1, MRP1

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 Programme 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 Programme 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 offered in the 2000/20001 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 in conjunction with Path 410. Two graduate students were enrolled in the Fall term of 2000.

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 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. The course is offered in the Winter term 2000-2001. Eight students were enrolled.

DEPARTMENT OF PATHOLOGY GRADUATE STUDENTS 2000 (Calendar Year)

Student Name	Program	Start Date	Supervisor	
Abu-Abed, Suzan	MSc/PhD	1/97 / 09/98	Dr. Petkovich	
Almquist, Kurt	PhD	09/95	Drs. Cole/Deeley	
Brown, Brian	MSc PhD	09/98 09/00	Dr. Lillicrap	Defended Mini-MSc 09/00
Carter, Melissa *	MSc	09/99	Dr. Mulligan	
Cuthbert, Carla	PhD	09/94	Dr. Lillicrap	Defended PhD 09/00
Davidson, Chris	PhD	09/97	Dr. Kisilevsky	Started Inactive 09/00
Fraser, Lee	PhD	09/98	Dr. Davey	
Gao, Mian	PhD	09/97	Drs. Deeley/Cole	Defended PhD 08/00
Greer, Deborah	MSc PhD	09/98 09/00	Dr. Davey	Defended Mini-MSc 08/00
Gui, Jin	PhD	09/96	Dr. Elliott	Withdrew 04/00
Grant, Fiona *	MSc	36768	Dr. Lillicrap	
Hansford, Jordan	MSc	09/98	Dr. Mulligan	Defended MSc 10/00
Hyndman, Brandy	MSc	09/99	Dr. LeBrun	
Kang, Martin	MSc	09/99	Dr. Davey	
Keightley, Angela	PhD	01/96	Dr. Lillicrap	Defended 04/00
Killoran, Annie	MSc	09/99	Dr. Lillicrap	
Kinkley, Sarah *	MSc	36768	Dr. Kisilevsky	
Lin, Eva *	MSc	09/99	Dr. Elliott	
MacLean, Glenn	MSc	09/99	Dr. Petkovich	
Naumovski, Diana *	MSc	36768	Dr. Mulligan	
O'Brien, Lee *	PhD	36768	Dr. Lillicrap	
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	
Truesdell, Peter	PhD	09/99	Dr. Greer	
Vultur, Adina	MSc PhD	09/98 09/00	Dr. Raptis	Defended Mini-MSc 08/00
Weigl, Kevin	MSc/PhD	9/97 / 9/99	Dr. Cole	
Young, Leah	PhD	09/94	Dr. Gerlach/Dr. Campling	Defended 09/00
Zhang, Dawei	PhD	09/98	Dr. Deeley	Undetect November 28 2

* New students for 2000/2001

Updated: November 28, 2001

POSTGRADUATE MEDICAL EDUCATION

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

Resident Appointments

July 1, 2000 - June 30, 2001

Dr. Tim Childs	PGY-3
Dr. Patricia Farmer	PGY-2
Dr. Jason Sack	PGY-3

AWARDS

Drs. Jason Sack & Tim Childs jointly received the RSA Prentice Award for "best presentation by a pathology resident".

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. RCPS accreditation status for the Queen's Pathology programs is as follows: AP - full approval; GP - inactive; HP - inactive; NP - inactive. The inactive designation reflects that at the time of the survey no residents were registered in these programs. An internal review of an active program by the PGME Committee is mandated within one year of program re-activation. With Patricia Farmer entering the GP Program in July 2000, an internal review will follow in the spring of 2001. The next accreditation review is scheduled for 2005. If a training program is still inactive at this time, accreditation can be withdrawn.

CANADIAN RESIDENT MATCHING SYSTEM (CaRMS)

In the 2000 CaRMS match, Queen's Pathology had two funded positions to fill. Nine out of twelve applicants were interviewed. Unfortunately, no matches occurred. However, through the re-entry program, Dr. Patricia Farmer elected to join the General Pathology Programme for the 2000/01 academic year.

2000 RESEARCH PROJECTS AND GRANTS

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT
Dr. C. Nickel, AH. Boag, & I.D. Young	Kidney Foundation of Canada	\$75,000	1997-2000	The role of prostatic inflammation in benign prostatic hyperplasia, Merck Medical School Grants Program
Drs. B. Campling & A.H. Boag	NCIC	\$90,000	1997-2000	Mechanisms of Drug Resistance in Prostatic Adenocarcinoma
Drs. S. Cole & R. Deeley	MRC	\$142,000	3 years	Cellular and molecular studies of MRP-related multidrug resistance
Dr. S. Cole	NCIC (to 06/2000)	\$70,000	3 years	Investigations of topoisomerase II in drug resistance
Dr. S. Cole	NCIC (from 07/2000)	\$87,500	3 years	Investigations of topoisomerase II in drug resistance
Drs. T.G. Flynn, S. Cole, R. Deeley, D. Maurice, et al.	Canadian Foundation for Innovation	\$3,585,029	1 year	Protein Function Discovery
Drs. T.G. Flynn, S. Cole, R. Deeley , D. Maurice, et al.	Ontario Innovation Trust	\$3,585,029	1 year	Protein Function Discovery
Drs. T.G. Flynn, S. Cole, R. Deeley, D. Maurice, et al.	Industry in-kind Contribution	\$1,792,513	1 year	Protein Function Discovery
C. Collier, J. van Eyk, G. Ropchan	Pathology, Clinical Trust Fund	\$9300	1999-2000	cTnI: Kinetic Correlations in Serum, Urine and Tissue samples from patients undergoing cardiac bypass surgery.
W. Pickett, J. van Eyk, R. Brison, C. Collier, D. Colantonio	MOH & Long-Term Care: Emergency Health Services Research Grant	\$43,900	2000-2002	Novel Troponin I modification products as predictors of cardiac events in emergency patients.
Drs. R. Deeley, B. Campling & S. Cole	NCIC	\$73,000 to 06/00	3 years	Molecular mechanisms of drug resistance
Drs. R. Deeley, S. Cole & M. Petkovich	NCIC	\$70,589 fr 07/00	3 years	Molecular mechanisms of drug resistance
Drs. R. Deeley & S. Cole	NCIC	\$95,000 to 06/00	3 years	Multidrug resistance conferred by MRP
Drs. R. Deeley & S. Cole	NCIC	\$105,500 fr 07/00	3 years	Multidrug resistance conferred by MRP

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT
Drs. R. Deeley & S. Cole	Eli Lilly	\$130,000 US	4 years	Molecular mechanisms of resistance to natural product and platinum-containing drugs
Dr. B. Elliott	USA/MRMC	US\$78,909/yr	1996-00	Role of an hepatocyte growth factor autocrine loop in growth and metastasis of breast cancer.
Dr. B. Elliott Postdoctoral Fellowship for Dr. Wesley Hung	USA/MRMC	US\$26,999/yr	3 years	Signal transduction in regulation of autocrine HGF expression in cancer metastasis.
Dr. B. Elliott (Predoctoral Studentship for Jin Gui	USA/MRMC	US \$14,885/yr	3 years	Identification of hepatocyte growth factor autocrine loops in breast carcinomas: Possible targets for therapeutic intervention
Dr. B. Elliott	Canadian Breast Cancer Research Initiative	\$44,416/yr	2 years	Development of peptide antagonists to hepatocyte growth factor as a novel approach to therapeutic intervention in breast cancer.
Dr. B. Elliott	CIHR	\$63,593/yr	3 years	role of HGF and the cell adhesion complex in survival and metastasis of lung carcinoma.
Dr. B. Elliott, et al	CIHR	\$25,379/yr	5 years	Maintenance Grant for Multi-User Equipment: Flow Cytometer and Confocal Microscope
Drs. A. Fletcher, R. Reid, D. VanVugt	MRC	\$93,000	2 years	Novel gynecological Applications for Photodynamic Therapy - (I act as the Pathology Consultant)
Dr. P.A. Greer	NCIC Operating Grant #9227	\$100,498/yr	1998-2001	A molecular and genetic analysis of the <i>fps</i> proto-oncogene
Dr. P.A. Greer	MRC Operating Grant #MT-11627	\$93,628/yr	1998-2001	A molecular and genetic analysis of the murine <i>fer</i> gene.
Dr. P. A. Greer	MRC/PMAC #PA-14882	\$35,230/yr	1999-2000	Development of transgenic mouse models for the <i>in vivo</i> analysis of anti-angiogenic treatment of cancer.
Dr. P.A. Greer	Queen's University Faculty of Health Sciences	\$12,000/yr	1999-2000	Development of transgenic mouse models for the <i>in vivo</i> analysis of anti-angiogenic treatment of cancer.
Dr. K. Harrison et al.	Pathology Clinical Trust Fund	\$8,510	1 year	Molecular screening for Smith-Magenis Syndrome in children with undiagnosed mental retardation.
Drs. K. Harrison & Greg Davies	KGH Research Fund Competition	\$10,000	1 year	Fluorescent in situ hybridization for the detection of prenatal aneuploidy

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT
Drs. J. MacKenzie and K. Harrison	Angada Foundation	\$3,045.93	1 year	Evaluation of familial developmental disability using molecular cytogenetic screening for cryptic chromosome rearrangements.
Drs. K. Harrison & D. LeBrun	Pathology Clinical Trust Fund	\$9,982	1 year	Detection of genomic changes in mantle cell lymphoma.
Drs. J. Matthews & K. Harrison	KGH Clinical Research Fund	\$4,984	1 year	Molecular cytogenetic identification of chromosome abnormalities in multiple myeloma.
Drs. D. Hurlbut & W. Paterson	ACG Clinical Research Fund	\$28,836	1 year	Mast Cells in Gastroesophageal Reflux Disease
Dr. R. Kisilevsky	MRC	\$104,000/year	3 years	Amyloidogenesis: An analysis of the causative factors in an experimental murine model.
Drs. R. Kisilevsky & W. Szarek	Inst. for Study of Aging, USA	\$120,000/year	2 years	Novel glycosaminoglycan precursors as anti-amyloid agents.
Drs. R. Kisilevsky, W. Szarek and J. Kennedy	Bill & Melinda Gates Foundation	\$255,000/year	3 years	A novel approach to anti-malarial therapy.
Dr. D. LeBrun	NCIC	\$268,000		Biological Consequences of E2A-PBX1 Expression
Dr. D. LeBrun	KGH Path Clin Trust Fund	\$ 7,000		Identification of genes differentially regulated by the oncogenic transcription factor E2a-Pbx1
Dr. D. LeBrun	NCIC	\$ 44,995		Mechanisms of Oncogenesis by E2a-Pbx1
Dr. D. LeBrun	CIHR/MRC	\$277,380		Elucidation of Protein-Protein Interactions Involving the N- terminus of E2a
Dr. D. Lillicrap	MRC	\$101,119/yr	4 years	Characterization of Mechanisms Regulating the Developmental Expression of Coagulation Factor IX
Dr. D. Lillicrap	HSFO	\$83,057/yr	2 years	Influence of Genotype and Environment on Endothelial Cell Expression of vonWillebrand Factor
Dr. D. Lillicrap	HSFO	\$53,500/yr	5 years	Career Investigator Award
Dr. D. Lillicrap	CHS	\$50,000	2 years	Evaluation of a Model System for the Site-Specific Correction of Hemophilic Mutations

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT
Dr. D. Lillicrap	Centeon/CBS	\$17,378/yr	1 year	Polymorphisms of the Glycoprotein Ib areceptor and their influence on bleeding manifestations and diagnosis in type 1 von Willebrand disease
Dr. D. Lillicrap	Bayer	\$100,000/yr	2 years	Studies of novel therapeutic strategies for hemophilia A in a canine model
Dr. D. Lillicrap	LCDC	\$150,000	3 years	A National Hemophilia Mutation Testing Program
Dr. D. Lillicrap	Genetics Institute	\$93,439/yr	2 years	The influence of Factor VIII Genotype on the incidence of inhibitor development with a novel recombinant factor VIII product
Dr. D. Lillicrap	CIHR	\$82,000/yr	4 years	The molecular genetic basis of type 1 von Willebrand disease
Dr. D. Lillicrap	Bayer/CBS Partnership Fund	\$86,379/yr	2 years	Inhibitor development following factor VIII gene therapy: Evaluation of a mouse model
Drs. D. Lillicrap, M. Nesheim, M. Koschinsky, G. Cote, D. Maurice and D. Lee	Heart and Stroke Foundation of Ontario	\$244,750/yr	5 years	Collaborative studies of hemostasis, fibrinolysis, and vascular cell growth and function"
Dr. P. Manley				
Dr. D. Maurice	HSFO	\$75,700	1 year	Cyclic Nucleotide Phosphodiesterases in Arteries
Dr. D. Maurice	CIHR	\$54,000	1 year	Role of PDE3 and PDE4 in Diabetes-Associated Cardiovascular Disease
Drs. D. Maurice & M. Nesheim, et al	HSFO	\$147,000	6 years	Collaborative Studies of Hemostasis, Fibrinolysis and Vascular Cell Growth and Function
Dr. D. Maurice	HSFO	\$8,000	1 year	Visiting Scientist Award
Dr. M. Raymond	OAML	\$5,140/year	3 years	Cost Effective Diagnosis A Monitoring of Monoclonal Gammopathy
Dr. J. Rossiter	ALS Society of Canada	\$20,000	1 year	Calpain and caspase protease activity in motoneuronal and axonal degeneration
Dr. J. Rossiter	Dept. of Pathology Clinical Trust	\$10,000	1 year	Calpain and caspase protease activity in motoneuronal and axonal degeneration

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT
Dr. J. Rossiter	The Botterell Foundation	\$10,000	1 year	Calpain and caspase protease activity in motoneuronal and axonal degeneration
Dr. J. Rossiter	Ontario Neurotrauma Foundation	\$43,585	1 year	Detection of diffuse axonal injury in human cases of very short post-injury survival by APP immunohistochemistry
Dr. C. Rowlands	Pathology Clinical Trust Fund	\$4,793	2 years	Role of Altered Apoptotic Control in the Pathogenesis of Psoriasis
Dr. K Aronson, S. SenGupta, W. Hanna, E. Sterns.	Canadian Breast Cancer Research Initiative	\$56,576	2 years	Steroid receptor content of benign breast epithelium and breast cancer risk
Drs. L. Shepherd, K. Pritchard, P. Watson, M. Pollack	NCIC	\$47,399/yr	4 years	Clinical Trials Group "A Tumour, Tissue, and Clinical Data Bank for Breast Cancer Patients Participating in NCIC CTG Clinical Trials"
Drs. L. Shepherd, T. Whelan, et al	CBCRI	\$300,000/yr	3 years	Clinical Trials Group "A Randomized Trial of Regional Radiotherapy in Early Breast Cancer"
Drs. L. Shepherd, K. Pritchard, et al	CBCRI	\$100,000/yr	3 years	The Role of Neu/Erb B-2 as a Predictive Factor for Differential Response to Adjuvant Chemotherapy and Tamoxifen
Drs. L. Shepherd, J. Pater, et al	NCIC	\$3,100,000	5 years	NCIC Clinical Trials Group
Dr. L. Shepherd	Parmacia, Bristol Myers, Squibb, Ortho Biotech, Amgen, Janssen	\$2,131,000 US \$2,525,000	1 year	A Phase III Adjuvant Trial of Sequenced EC + GCSF followed by Taxol vs. Sequenced AC followed by Taxol vs. CED as Therapy for Premenopausal Women and Post Menopausal Women less than 60 years of age who have had Potentially Curative Surgery for Node Positive or High Risk Node Negative Breast Cancer
Dr. S. Taylor	PSI	\$65,000/yr	3 years	Molecular and Cytogenetic Delineation of Aicardi Syndrome
Dr. S. Taylor	ссо	variable	4 years	Genetic Analysis of the BRCA1 gene in Familial Breast and Ovarian Cancer
Dr. S. Taylor	NIH	\$22,939/yr	4 years	Ontario Registry for Studies of Familial Breast Cancer
Dr. S. Taylor	NIH	\$30,000/yr	3 years	Ontario Registry for Familial Studies of Colorectal Cancer
Dr. L. Tomalty	Glaxo Wellcome Inc.	\$13,000		Educational Effectiveness of Online CME vs Direct Contact CME

NAME	AGENCY	AMOUNT	DURATION	TITLE OF RESEARCH PROJECT
Dr. L. Tomalty	Glaxo Wellcome Inc.	\$11,000		Using Computer Resources for CME: Physician Preference Survey
Dr. L. Tomalty	McGraw Hill Publishers	\$15,000US		Development of Hyperclinic II: Interactive Case Studies in Microbiology
Dr. D. Zoutman	Health Canada	\$30,000	2000-2001	Resources for Infection Control in Hospitals
Dr. D. Zoutman	Health Canada	\$1,500	2000-2001	National MRSA Surveillance Project
Dr. D. Zoutman	Health Canada	\$3,000	2000-2001	National CSF Shunt Infection Surveillance
Drs. D. Zoutman, M. Loeb, A. McGeer and A. Simon	US DHHS	\$239,000	2000-2002	Implementation and assessment of a Diagnostic and Treatment Algorithm for Urinary Tract Infections in Long Term Care Facilities
Dr. D. Zoutman	SWEP	\$6,500	2000	Development of a Relational Data Base for Infectious Diseases Research
Dr. D. Zoutman	SWEP	\$6,500	2000-2001	Development of Patient Education Program for Infectious Diseases
Dr. D. Zoutman	Employment Canada	\$2,650	2000	Development and Analysis of Antibiotic Resistance Database for St. Mary's of the Lake Hospital
Dr. D. Zoutman	RW Johnson Pharmaceutical Research Institute	\$4,000/case	2000-2001	Randomized Controlled Trail of RJW 270201 in the Treatment of Influenza
Dr. D. Zoutman	Pfizer Pharmaceuticals	\$10,000	2000-2001	Antibiotics in Moderation (AIM) Clinical Trial

2000 - 2001 ANNUAL GRANTS - DEPARTMENT OF PATHOLOGY

RESEARCHER	GRANTING AGENCY	AMOUNT
Cole, Dr. Susan	M.R.C.	\$142,000.
Cole, Dr. Susan	N.C.I.C.	\$70,000.
Cole, Dr. Susan	N.C.I.C.	\$87,500.
Cole, Dr. Susan	Cdn.Inst. Health Research	\$25,739.
Deeley, Dr. Roger	N.C.I.C.	\$73,000.
Deeley, Dr. Roger	N.C.I.C.	\$95,000.
Deeley, Dr. Roger	Eli Lilly	\$130,000.
Deeley, Dr. Roger	N.C.I.C.	\$70,589.
Deeley, Dr. Roger	N.C.I.C.	\$105,500.
Harrison, Dr. K. & Lebrun, Dr. D	. K.G.H. Clinical Trust Award	\$9,982.
Elliott, Dr. Bruce	USAMRMC	\$118,362.
Elliott, Dr. Bruce	Cdn. Breast Cancer Research	\$44,416.
Elliott, Dr. Bruce	Cdn.Inst.Health Research	\$63,593.
Elliott, Dr. Bruce	USAMRMC	\$33,327.
Elliott, Dr. Bruce	USAMRMC	\$40,498.
Elliott, Dr. Bruce	Cdn. Inst. Health Research	\$25,379.
Greer, Dr. Peter	N.C.I.C.	\$100,498.
Greer, Dr. Peter	M.R.C.	\$93,628.
Greer, Dr. Peter	M.R.C.	\$23,230.
Karnauchow, Dr. Tim	Research Initiation Grant	\$30,000.
Kisilevsky, Dr. Robert	M.R.C.	\$104,099.
Kisilevsky, Dr. Robert	Inst. For Study of Aging	\$355,700.
Kisilevsky, Dr. Robert	Gates Foundation	\$370,399.
Kisilevsky, Dr. Robert	Botterell Fund	\$4,500.
LeBrun, Dr. David	Cdn. Inst. Health Research	\$46,320.
LeBrun, Dr. David	N.C.I.C.	\$44,995.
Lillicrap, Dr. David	Cdn. Inst. Health Research	\$40,454.
Lillicrap, Dr. David	Genetics Institute	\$93,439.
Lillicrap, Dr. David	Bayer	\$100,000.
Lillicrap, Dr. David	Cdn. Hemophilia Society	\$50,000.
Lillicrap, Dr. David	Aventis-Behring Canada	\$25,300.
Lillicrap, Dr. David	H&S	\$85,256.
Lillicrap, Dr. David	H&S	\$76,250.
Lillicrap, Dr. David, et al.	H&S	\$150,000.
Lillicrap, Dr. David	M.R.C.	\$106,201.
Lillicrap, Dr. David	AHCDC	\$125,000.
Maurice, Dr. Donald	H&S	\$75,700.
Maurice, Dr. Donald	Cdn. Institute Health Research	\$54,000.
Maurice, Dr. Donald	H&S	\$8,000.
Rossiter, Dr. John	K.G.H. Clinical Trust Award	\$10,000.
Rossiter, Dr. John	Ont. Neurotrauma Fdn.	\$43,500.
Rowlands, Dr. Caroline K.	G.H. Clinical Trust Award	\$4,793.
Taylor, Dr. Sherry	Cancer Care Ontario	\$15,400.

Zoutman, Dr. Dick	Health Canada	\$30,000.
Zoutman, Dr. Dick	Health Canada	\$1,500.
Zoutman, Dr. Dick	Health Canada	\$3,000.
Zoutman, Dr. Dick	Pfizer Pharmaceuticals	<u>\$10,000.</u>
	TOTAL:	\$3,416,047.
April 24, 2001		

DEPARTMENT OF PATHOLOGY VISITING LECTURERS 2000

VISITING LECTURERS 2000

INVITED SPEAKERS

NAME	TITLE	DATE
Dr. Monique Arquint Anatomic Pathologist, St. Paul's Hospital, Vancouver, BC	Optimal Cytological Evaluation of Breast and Thyroid Lesions	February 10, 2000
Dr. Aly Karsan Dept. Of Pathology & Laboratory Medicine, St. Paul's Hospital, Vancouver, BC	Inflammatory Mediators and the Mechanisms of Endothelial Apoptosis	February 16, 2000
Dr. Janine Benoit Anatomic Pathologist, Laboratory, Saskatoon City Hospital, Saskatoon, Saskatchewan	Evaluation of the ThinPrep Pap Test in a Canadian Screening Population - Experiences with ah Clinical Trial in Saskatoon	February 28, 2000
Dr. L. MacNamara Chief of Diagnostic Medicine and Medical B Biochemistry, Sir Mortimer B. David Jewish General Hospital, Montreal, QC	The Pitfalls of Excessive Testing	March 2, 2000
Dr. Valerie Wallace Research Scientist, Ottawa General Hospital	Hedgehog Proteins and the Development of the Mammalian Visual System	March 7, 2000
Dr. John G. Koland Department of Pharmacology, University of Iowa	Signal Transduction by EGF Receptor/ErbB Family Members	March 14, 2000
Dr. Katherine High Associate Professor, Depts. Of Pediatrics, Pathology & Laboratory Medicine, University of Pennsylvania and The Children's Hospital of Philadelphia, PA	HAAVing it all: AAV - Medicated Gene Therapy for Hemophilia	March 21, 2000
Dr. Ami Aronheim The B. Rappaport Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel	Novel Protein Recruitment Systems for the Analysis of Protein-Protein Interactions with Nuclear, Cytoplasmic and Membrane Proteins	April 7, 2000

NAME	TITLE	DATE
Dr. Mohamed Khalifa Associate Professor, Departments of Pediatrics & Pathology, Queen's University	Aicardi Syndrome: A Possible New Mechanism of Human Disease	April 11, 2000
Dr. Errol Friedberg Professor & Chair, Dept. Of Pathology, University of Texas Southwestern Medical School, Dallas, TX	Defective Nucleotide Excision, Repair and Cancer: From Man to Yeast to Mice	May 9, 2000
Dr. Xiang-Jiao Yang Assistant Professor, McGill University Health Centre, Montreal, QC	Histone Acetylation: tales of HAT, HDAC and 14-3-3 Proteins	October 24, 2000
Dr. Virginia Walker Professor, Department of Biology, Queen's University	Cool Genes from Creepy Crawlies	November 14, 2000
Dr. Patricia Tonin Assistant Professor, Depts. Of Medicine & Human Genetics, McGill University, Montreal, QC	BRCA1 and BRCA2 Mutation Analysis in Hereditary Breast/Ovarian Cancer	November 28, 2000
Dr. Moira Glerum Assistant Professor, Medical Genetics, University of Alberta	Understanding the Link Between Hypertrophic Cardiomyopathy and Mitochondrial Copper Metabolism	December 5, 2000

SENIOR STAFF DEPARTMENT OF PATHOLOGY AND QUEEN'S UNIVERSITY

LECTURES

SENIOR STAFF DEPARTMENT OF PATHOLOGY, QUEEN'S UNIVERSITY AND KGH LECTURES

Dr. C. Collier

1) Cardiac Markers: The High Road or the Low Road, Pathology Grand Rounds, 25 May, 2000.

Dr. D. Dexter

1) Death Where is thy Sting?, Pathology Grand Rounds, 7 December, 2000;

2) Current Controversies and Strategies in the Management of Thyroid Cancer - "Papillary and Follicular Carcinoma: The Pathologist's Role in Planning Treatment", Kingston Regional Cancer Centre, Queen's Department of Oncology, the Head and Neck Site Group, May 11, 2000 - Kingston, Ontario.

Dr. B. Elliott

1) Zipping up Malignancy: Role of c-SRC and ezrin in Cell-Cell Contacts, Department of Pathology Seminar, 31 October, 2000

Dr. A. Fletcher

1) Pathology of the Placenta, Pathology Grand Rounds, 24 August, 2000.

Dr. S. Ford

1) "I kissed thee ere I killed thee": A Review of Dysfunctional Intersexual Relationships, Pathology Grand Rounds, 9 March, 2000.

Dr. K. Harrison

1) FISH'ing for Chromosome Abnormalities, Pathology Grand Rounds, 27 April, 2000.

Dr. D. Hurlbut

1) $\underline{\text{STUMP} + \text{GIST}} = \text{GI PACT}?$

ICC

Role of the Interstitial Cell of Cajal in the Pathogenesis of Gastrointestinal Stromal Tumours, Pathology Grand Rounds, 24 February, 2000.

Dr. T. Karnauchow

1) West Nile Virus (WNV), Pathology Grand Rounds, 31 August, 2000.

Dr. R. Kisilevsky

1) Pathogenesis of Amyloids, Pathology Grand Rounds, 14 September, 2000.

Dr. D. LeBrun

1) Expression Profiling of E2a-Pbx1 Target Genes, Pathology Grand Rounds, 26 October, 2000.

Dr. D. Lillicrap

1) A Comprehensive Approach to the Laboratory Assessment of Hemophilia A: The Kingston Model, Pathology Grand Rounds, 8 June 2000.

Dr. S. Ludwin

1) Reactive Gliosis in Experimental and Clinical Disease, Pathology Grand Rounds, 28 September 2000.

Dr. M. Petkovich

1) Controlling Retinoic Acid Levels During Embryogenesis, Pathology Departmental Seminar, 26 September, 2000.

Dr. D. Rapson

1) Adjuvant Therapy in Colon Cancer: Relating Clinical Trial to Clinical Practice, Pathology Grand Rounds, 13 July, 2000;

2) Acute Lymphoblastic Leukemia, Pediatric Oncology Workshop for Nurses, October, 2000;

3) Flow Cytometry Session for Technologists, January 2000.

Dr. M. Raymond

1) To Screen or not to Screen...The PSA Question, Pathology Grand Rounds, 30 November 2000.

Dr. J. Rossiter

1) Neurofibromatosis: from Phenotype to Neurofibromin and Merlin, Pathology Grand Rounds, 11 May, 2000.

Dr. C. Rowlands

1) Sentinel Mode Mapping and Biopsy - New Standard of Practice, Pathology Grand Rounds, 27 January, 2000.

Dr. J. Samis

1) Proteolytic Processing of Human Factor IX by Plasmin: Physiological and Pathological Relevance, Pathology Seminar, 18 April, 2000.

Dr. S. SenGupta

1) Quality Assurance of Second Opinion Surgical Pathology, Pathology Grand Rounds, 6 April, 2000.

Dr. L. Shepherd

1) Current Thoughts in Canada on the use of IVIg, Pathology Grand Rounds, 9 November, 2000.

Dr. S. Taylor

1) Familial colon Cancer: Algorithms for Genetic Diagnosis, Pathology Grand Rounds, 3 August, 2000.

Dr. L. Tomalty

1) 8th Educational Strategies Workshop, "Teaching Microbiology & Immunology to Medical Students", Adopting to Learning Styles in a Technology-Rich Environment.

2) Ontario Medical Schools Weekend: technology and Active Learning - the Challenge to do it Right.

3) Undergraduate Medicine Curriculum Retreat, Curriculum Ideas for Active Learning.

Dr. I. Young

1) Error in Diagnostic Pathology, Pathology Grand Rounds, 23 November, 2000.

Dr. D. Zoutman

1) Dept. Family Medicine Grand Rounds, Invited Speaker, 21 March, 2000;

- 2) KGH Critical Care Day, Invited Speaker, 28 April, 2000;
- 3) Queen's Dept of Medicine Grand Rounds Speaker, 6 July, 2000;
- 4) KGH Nursing Dept, Invited Speaker, 25 September, 2000;
- 5) Influenza: New Strategies for an old Affliction, Pathology Grand Rounds, 12 October, 2000;
- 6) Queen's University Dept Emergency Medicine, Invited Speaker, 18 October 2000;
- 7) Queen's University Dept Oncology, Invited Speaker,2 November 2000;
- 8) Queen's Dept Obstetrics & Gynecology Grand Rounds, Invited Speaker, 21 November 2000.

SENIOR STAFF DEPARTMENT OF PATHOLOGY

INVITED LECTURERS OUTSIDE OF KINGSTON

INVITED LECTURES OUTSIDE OF KINGSTON SENIOR STAFF DEPARTMENT OF PATHOLOGY

Dr. A.H. Boag

1) First Canadian Lung Cancer Research Workshop, University Health Network - Princess Margaret Hospital, Toronto, Ontario, June 2000

Dr. S. Cole

1) Symposium on "Transporters in Host Defence Mechanisms", Tokyo, Japan, January 19, 2000;

2) Symposium on "Cytotoxic Chemotherapy : Marking the Transition to the New Millenium", 91st Annual Meeting of the American Association for Cancer Research, San Francisco, CA, April 4, 2000;

3) Gordon Research Conference on "Chemotherapy of Experimental and Clinical Cancer", Oxford, UK, September 19, 2000;

4) Québec Breast Cancer Symposium, Montréal, October 27, 2000;

5) Department of Biochemistry, Kyushu University, Fukuoka, Japan, January 24, 2000;

6) Department of Clinical Pharmacology, Vanderbilt University School of Medicine, Nashville, TN, March

30, 2000; 7) Department of Pharmaceutical Sciences, St. Jude Children's Research Hospital, Memphis, TN, March 31, 2000;

8) Division of Cell Biology, Hospital for Sick Children, Toronto, May 12, 2000;

9) Faculty of Pharmacy, University of Toronto, October 12, 2000;

10) Merck-Frosst Centre for Therapeutic Research, Montreal, December 7, 2000 (with R. Deeley);

11) Co-chairperson and Organizer, Symposium on "Cytotoxic Chemotherapy: Marking the Transition to the

New Millenium", 91st Annual Meeting of the American Association for Cancer Research, San Francisco,

CA. April 4, 2000; 12) Adjudicator, oral presentations, 3rd Annual Meeting for Basic and Clinical Research Trainees, Faculty of Health Sciences, Queen's University, May 31, 2000;

13) Co-Moderator, Session on Genomics and Novel Therapeutics, Canadian Lung Cancer Research Workshop, Toronto, June 16-17, 2000;

14) Chair, Session on Drug Resistance. Gordon Research Conference on Chemotherapy of Clinical and Experimental Cancer, Oxford, UK, September 19, 2000.

Dr. C. Collier

1) OSMT: Cardiac Markers. Presented with Dr. E. Dagnone, September 2000, Kingston, ON.

Dr. R. Deeley

1) CREST International Symposium on the Role of Transporters in the Host Defense Mechanism, Tokyo, Japan, January 2000;

2) SFB 352 International Symposium: Molecular Mechanisms of Intracellular Transport, Heidelberg, Germany, February 2000;

3) 10th North American ISSX Meeting (International Society for the Study of Xenobiotics): Mechanisms, Models, and Methods for the Next Century, Indianapolis, Indiana, October 2000;

4) Department of Biochemistry, University of Osaka, Osaka, Japan, January 2000;

5) Eli-Lilly Pharmaceuticals, Indianapolis, October 2000;

6) Sunnybrook & Women's College Health Sciences Centre, Oncology Grand Rounds, November 2000;

7) Sunnybrook & Women's College Health Sciences Centre, Tumour Biology Division, November 2000;8) Merck Frosst Canada & Co., Kirkland, Quebec, December 2000.

Dr. D. Dexter

1) Ontario Coroners' Association Professional Advancement Programmes, International Conference for Coroners and Pathologists, "WASPS, Sandwiches, and Coffee", November 25-December 3, 2000, Tamarind Cove Hotel, Barbados, WI.

Dr. B. Elliott

1)"Regulation and function of scatter factor/HGF autocrine loops in breast cancer metastasis" Sabbatical lecture I. Curie Institute, Paris, France. March 21, 2000;

2) "Cross-talk between scatter factor/HGF and integrin signalling pathways in mammary tumorigenesis" Sabbatical Lecture II. Curie Institute, Paris, France. April 18, 2000;

3) "Novel concepts in breast cancer metastasis: Basic and clinical implications" Sabbatical lecture III. Curie Institute, Paris, France. May, 2000;

4) "Role of scatter factor/HGF and integrin signalling pathways in mammary tumorigenesis" Visit to Dept. Cellular Biochemistry, University of Glasgow, Scotland. June 27, 2000;

5) "Cross talk between scatter factor/HGF and cell adhesion signalling pathways in mammary tumorigenesis". Visit to Signal Transduction Laboratory, Imperial Cancer Research Fund, London, England, June 26, 2000.

Dr. P. Greer

1) Cancer Care Ontario, University Medical Discoveries Inc. 2000;

2) Centre for Cancer Therapeutics, Ottawa, 2000

Dr. K. Harrison

1) Clinical Application of FISH, Michener Institute, April 2000;

2) Clinical application of Comparative Genomic Hybridization: A Molecular Cytogenetics Technique, AGCO 2000 Conference, June, 2000, Kingston, ON

Dr. T. Karnauchow

1) Grand Rounds, "West Nile Virus: What Health Professionals Needs to Know", Brockville, ON, December 2000.

Dr. R. Kisilevsky

1) University of Toronto, Department of Pathology, Toronto, Ontario, "Cholesterol Metabolism During Acute Inflammation, A Peek Through an Amyloid Window", January 2000;

2) Current Concepts in Investigative Pathology, International Symposium Universidad Nacional Pedro Enrique Unreña, Santo Domingo, Dominican Republic, "Amyloidogenesis, Or the Argument for Doing Basic Research", April 2000;

3) University of Tennessee Medical Center, Department of Medicine, Knoxville, Tennessee, "Inhibition of Amyloidogenesis", May 2000;

4) FASEB Summer Conference, Copper Mountain, Colorado, Amyloid and Other Abnormal Protein Assemblies, "AA Amyloidosis and the Extracellular Matrix", June 2000;

5) University of Pennsylvania School of Medicine, Department of Pathology, Philadelphia, Pennsylvania, "The Biochemistry of In-vivo Amyloidogenesis and Strategies for its Prevention, **November 2000**.

Dr. D. Lillicrap

1) Von Willebrand Disease Nursing Symposium, Aventis-Behring Symposium, San Juan, Puerto Rico,"Von Willebrand Disease: Treatment and Future Directions", February 2000;

2) 3rd National Hemophilia Foundation Gene Therapy Workshop, Washington, DC, "The canine model of hemophilia in trials of gene therapy", March 2000;

3) Genetics Institute Speakers Bureau, New York City, New York, "Gene Therapy for Hemophilia", May 2000;

4) Gene Therapy for Hemophilia Symposium, 3rd Annual Meeting of the American Society for Gene Therapy, Denver, "Animal models of hemophilia", June 2000;

5) Association of Genetic Counsellors of Ontario Meeting, Kingston, ON, "Human Gene Therapy: Proceed with cautious optimism", June 2000;

6) World Federation of Hemophilia Congress, Montreal, Quebec, "Fundamentals of Hemostasis in the management of inherited bleeding disorders", July 2000;

7) Education Program, International Society of Haematology Congress, Toronto, ON, "From Gene to Vein - Diagnosis and Management of Hemophilia and von Willebrand Disease", August 2000;

8) 11th Annual Gunton Symposium on Cardiovascular Research, The John P. Robarts Research Institute, London Health Sciences Centre, University Campus, London, ON, "Recent advances in the molecular therapeutic management of hemophilia", October 2000;

9) Departments of Pathology, Laboratory Medicine and Medicine, University of British Columbia, Vancouver, B.C., "von Willebrand's Revenge - Did He really Mean it to be so complicated?", October 2000;

10) Departments of Pathology, Laboratory Medicine and Medicine, University of British Columbia,

Vancouver, B.C., "Advances in molecular genetics of hemophilia", October 2000;

11) Aventis-Behring Hemophilia Symposium, Toronto, ON, "Hemophilia B: molecular genetic pathology and gene therapy", October 2000.

Dr. S. Ludwin

1) "The Role of Gliosis in Demyelinating Disease", United Leukodystrophy Foundation Meeting, July 2000;

2) Myelin Project Annual Meeting, Washington, DC, October 2000, (invited discussant);

3) "Mechanisms of Demyelination", Philippe Laudat Conference, Aix France, November 2000;

4) "Pathology of MS", MS Preceptorship Program, Ottawa, ON, December 2000.

Dr. D. Maurice

1) Angiotensin-Mediated Regulation of PDE-4D Expression in Blood Vessel Smooth Muscle Cells: Role of PKA and MAPK on mRNA Stability at Gordon Research conference on Cyclic Nucleotide Phosphodiesterases, Sep. 10-15, 2000, Queen's college, Oxford, UK.

Dr. D. Rapson

1) "Leukemia Diagnosis in the Year 2000". Laboratory Symposium, Sault St. Marie, May 2000.

Dr. J. Rossiter

1) "The fall and rise of apoptosis", John Austin Society, November 16, 2000;

2) "Increased access to private health care services would significantly improve the population's health", 4th Annual A.A. Travill Debate, opposing the motion that.

Dr. S. SenGupta

1) "Pre-malignant Breast Disease and In Situ Neoplasms". Ontario Breast Screening Program (Southeast Region) Education Day, Kingston, 2000;

2) "HER-2 *neu* Testing Comes of Age". Association of Genetic Colleagues of Ontario (AGCO) 26th Annual Meeting, Kingston, ON, 2000;

 "Human Resource Issues in Pathology". Canadian Association of Pathologists' 51st Annual Meeting, Ottawa

4) "Alternate Funding Plan at Queen's University". University of Ottawa Department of Pathology Special Symposium, Ottawa, ON, 2000.

Dr. D. Zoutman

1) Correctional Services of Canada, Ontario Region Education Day, 4 April, 2000;

2) Ontario Lung Association Annual Meeting, Invited Speaker, June 2000;;

3) KFL&A Health Unit, Invited Speaker, 9 June, 2000;

4) KFL&A CCAC, Invited Speaker, 16 June, 2000;

5) Quinte Health Care Corporation, Invited Speaker, 12 July, 2000;

6) St. Mary's of the Lake Hospital, Dept. Geriatrics & Long Term Care, Invited Speaker, 13 November, 2000;

7) Ontario Association of Sanitation Suppliers, Invited Speaker, 19 December, 2000.

SENIOR STAFF COMMITTEES

SENIOR STAFF COMMITTEES

Dr. M. Arquint: Laboratory Medical Director, Perth & Smiths Falls Community Hospital.

Dr. S. Boag: Member, Senate Committee on Information Technology; 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, Chancellor's Research Award Committee; Member, Principal's Review Committee, Dean, Faculty of Health Sciences; Member, Scientific Management Committee, CFI Grant, Protein Function Discovery; Member, Advisory Committee on the Establishment of a Cancer Research Institute; Member, Pathology Graduate Studies Committee; Member, Pathology Search Committee; Member, Pathology Haust Trust Fund Committee.

Dr. C. Collier: Member, Cross Faculty Teaching Forum Committee, Queen's; Member, Council on Employment Equity, Queen's; Coordinator, TIPS, Queen's; Member, Faculty of Medicine TIPS; Interviewer, Faculty of Health Sciences Admissions Committee; Member, PBL Committee, Faculty of Health Sciences; Member, Faculty of Health Sciences Faculty Development Committee; Member, Pathology Staff Meetings; Member, Pathology Postgraduate Education Committee; Director, St. Lawrence College MLT Clinical Year Program; Member, Division of Clinical Laboratory Staff Meeting, KGH.

Dr. R. Deeley: Director, Cancer Research Laboratories; Member, Committee for Promotions, Tenure and Reappointment (Oncology & Pathology); Research Director, CCO/RCC; Member, Leadership Committee, KRCC; Member, Research Development Committee, KGH; Member, Scientific Advisory Board, Ontario Center for Protein Production.

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, HDH; Founder/Member, Special Resources Committee, Le Royer Patrons, HDH; Member, Comprehensive Planning Committee on the Board, HDH; Member, MoCert, for the RCPSC; Member, Pathology Finance Committee; Member, General Pathology Residency Programme Committee; Member, Anatomic Pathology Residency Programme Committee; Member, Hematopathology Residency Programme Committee; Member, Consolidated Division of Hematopathology.

Dr. B. Elliott: Coordinator, Flow Cytometry and Confocal Microscope Facility; Member, Pathology Queen's and KGH Staff Meetings.

Dr. A. Fletcher: 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; Member, Pathology PRTCA Committee.

Dr. P. Greer: Member, Pathology Graduate Committee; Member, University Animal Care Committee; Member, Advisory Committee to Animal Care Services; Member, Microarray Service Management Committee.

Dr. K. Harrison: Interviewer, Medical School Interview, Faculty of Health Sciences, Queen's; LIS Prioritization Committee; Member, Pathology Search Committee for Dr. Wasan; Member, Pathology PRTCA Committee; Cross Coverage, CHEO Cytogenetics Laboratory; Consultant, Oshawa Lakeridge Health Centre; Member.

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

Dr. T. Karnauchow: Member, Pathology AP/GP Residency Training Committee; Member, Quality and Utilization Improvement Committee; Member, KGH Medical Microbiology Laboratory Administrative Committee; Member, Antibiotic Use Subcommittee; Laboratory Co-Representative, Infection Control Committee.

Dr. R. Kisilevsky: Member, University Club Board, Queen's; Member, Faculty Board; KGH/HDH/Queen's Staff Meetings; Member, Pathology Research Advisory Committee; Member, PRTCA Committee.

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

Dr. D. Lillicrap: Member, Search Committee for Associate Dean of Research 2000, Queen's; Chair, Faculty Genetics Review Committee, Queen's; Member, University Animal Care Services Users; Chair, Faculty Clinical Genetics Review Committee, Queen's; Member, Faculty Search for Associate Dean of Research, Queen's; Chair, A.A. Travill Debate Committee; Committee Member, Blood Utilisation 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; Director, Neuropathology Training Program.

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, Garfield Kelly Awards Committee; 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.

Dr. D. Rapson: Member, Hematopathology/Oncology Division; Member, Pediatric Oncology Joint Practice Care Team; Member, Pediatric 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, Pathology Search Committee for Anatomic Pathologist; Member, Pathology Finance Committee; Member South Eastern regional Bone Marrow Transplant Planning Group.

Dr. M. Raymond: Chief, KGH Clinical Chemistry; KGH Staff Meetings; Queen's Pathology Staff Meetings; Member, LIS Prioritization Committee; Member, LIS Specification Committee.

Dr. J.P. Rossiter: Director, Neuropathology residency Program; 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; Member, Bracken Library Committee

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

Dr. S. SenGupta: Member, Faculty UMEC Committee; Member, Faculty Phase II Musculoskeletal

Course Committee; Chair, Block IIA Course Directors' Committee; Member, KGH/HDH Medical Advisory Committee; Member, Ongwanada Hospital Medical Advisory Committee; Member, HDH Breast Assessment Centre Committee; Queen's/KGH/HDH Staff Meetings; Member, Pathology Finance Committee; Member, Quality Assurance Committee, Member, SEAMO AFT Negotiations Group; Chiefs of Service Committee; Member, Molecular Microbiology Service Group; Chair, Laboratory Outreach Program Committee.

Dr. L. Shepherd: Member, Faculty Postgraduate Education Committee; Interviewer, Medical School Admissions; 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; Director, Hematological Path Training Program; Chair, Consolidated Division of Hematology; Member, General Pathology Training Committee; Member, Pathology Anatomical Pathology Training Committee; Chair, Pathology PRTCA Committee; Pathology Ad Hoc Search Committee, Hematopathology; Member, Core Lab Working Group; Member, Tissue & Tumour Block Retrieval Committee; Member, QA Committee; Member, Search Committee, NCIC CTG.

Dr. S. Taylor: Member, Biohazard Safety Committee, Queen's; Member, Canvasser, Campus Campaign Fundraising, Queen's; Co-Director, KGH DNA Laboratory; Chief of Service, Laboratory Genetics; Member, Biohazard Safety Committee, Queen's; Member, Faculty QUFA Promotions/Tenure Committee; Member, KGH Foundation Grants Committee; Member, Clare Nelson Bequest Fund Committee, KGH; Member, KGH Radiation Safety Committee; Queen's/KGH/HDH Staff Meetings.

Dr. L. Tomalty: Member, Technology in Learning Committee, Queen's; Associate Dean, CME; Queen's; Block 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, Undergraduate Medical Review Committee; Member, Search Committee, Micro & Immunology; Member, Infection Control Committee; Member, Antibiotic Use Subcommittee; Director, Department of Medical Microbiology; Chair, Administrative Committee, Department of Medical Microbiology; Member, Pathology Finance Committee; Pathology LIS Implementation Working Group.

Dr. I. Young: Member, Faculty Nephrology Resident Program Committee; 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; Chairman, 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. M. Arquint: Member, Quality Assurance Committee, Perth/Smiths Falls Hospital.

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, Advisory Committee on Research (ACOR), NCIC; Member, ACOR Subcommittee for Travel Awards, NCIC; Member, Oversight Committee on Centre for Behavioural Research and Program Evaluation, NCIC; Member, Research Advisory Committee, Cancer Care Ontario; Member, Genomics Initiative Advisory Board, Ontario Research and Development Challenge Fund, Ontario Ministry of Energy, Science and Technology; Member, Working Group, Highway to Life, Ontario Ministry of Energy, Science and Technology; Consultant, Merck Frosst Therapeutics, Montreal; Consultant, Eli Lilly, Indianapolis.

Dr. C. Collier: Chair, Professional Development Program, Canadian Society of Clinical Chemists; Councillor, Ontario Society of Clinical Chemists; General Chemistry Committee, QMP-LS.

Dr. R. Deeley: Head, Division of Research, Cancer Care Ontario; Member, Scientific Advisory Committee, MDS Inc.; Member, Working Group, Ontario Cancer Research Network/Ontario Ministry of Energy, Science & Technology; Member at Large, National Cancer Institute of Canada; Consultant, Merck Frosst Canada & Co.; Consultant, Eli Lilly; Member, Scientific Advisory Committee, Cytochroma Inc.; Member, Management Committee, Ontario Cancer Genetics Network.

Dr. D. Dexter: Director, MDS Laboratories; Acting Director, Forensic Unit.

Dr. B. Elliott: Member, NCIC Grant Panel J.

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; Proctor, CCMG Examination of Molecular Fellow; Proctor for Genetic Technology Student Exam, Michener Institute; Member, Genetics Liaison Committee, Michener Institute; Member, Conference Planning Committee, AGCO Conference 2000.

Dr. T. Karnauchow: Member, Canadian Committee for the Standardization of Molecular Methods.

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

***Dr. D. LeBrun:** Member, Canadian Society for Clinical Investigation; Member, American Society of Hematology; Member, Canadian Medical Protective Association; Fellow, RCPSC; Member, American

Association for the Advancement of Science; Member, Ontario Medical Association; Member, OAP; Website Editor for Experimental Pathology Section, Canadian Association of Pathologists.

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 for Gene Therapy; Member, Canadian Hemophilia Society; Member, World Federation of Hemophilia; Member, Association of Hemophilia Clinic Directors of Canada

Dr. S. Ludwin: Chairman, MAC, Canadian Multiple Sclerosis Society; Site Visitor and External Project Supervisor, US National MSS; Myelin Project Board; President, 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: Director, Contract Laboratory for Organon-Technika for KGH.

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

Dr. J. Rossiter: Chair, Residents' Award Committee, CAP.

Dr. C. Rowlands: Council Member, Ontario Association of Pathologists.

Dr. S. SenGupta: Member, Southeastern Ontario Healthcare Network Committee; Member, Examination Board in AP, RCPSC; Member, Regional Advisory Committee, RCPSC; Past-President and Member of Executive Committee & Board of Directors, Ontario Association of Pathologists; Vice President and Member of Executive Committee, OAP; Member, AP Committee, Ontario Quality Management Program for Laboratory Services; Member, Advisory Committee on HER-2/neu Testing, QMP-LS; Member, Ontario Breast Assessment Collaborative Group.

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; Member, Laboratory Proficiency Testing Program, Immunology Committee; Member at Large, Canadian Society of Transfusion Medicine Board. **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; Member, OMH, Cancer Genetics Steering Committee; Chair, OMH, Cancer Genetics Laboratory Subcommittee; Member, OMH, Predictive Genetics Committee.

Dr. L. Tomalty: Member, Ontario Strategies for Alzheimer's Disease and Related Dementia Committee, MOH ; Member, OMA/MOH Guideline Advisory Committee; Board Member, Canadian College of Microbiology; Editor, Image Collection, American Society for Microbiology.

Dr. D. Zoutman: Member, Corrections Canada Infectious Diseases Inmate Advisory Committee; 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; Chair, National Strategic Planning for Infection Control Effectiveness Working Group, National Steering Committee on 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: Journal Reviewer for: Clinical Cancer Research, Tumour Biology, Cancer, Invasion and Metastasis; Grant Reviewer for Dept. of Pathology, University of Georgia

Dr. S. Cole: Reviewer for: Dutch Cancer Society, NCIC, Association for International Cancer Research, Cancer Research Campaign (UK), CIHR;

Referee for: Cancer Research, Clinical Cancer Research, Journal of Biological Chemistry, Molecular Microbiology, Molecular Pharmacology, Proceedings of the National Academy of Sciences (USA), Journal of Physiology, International Journal of Radiation Oncology, Biology and Physics, Pharmacogenetics; Editorial Responsibilities: Editorial Board, *Journal of Biological Chemistry*, 2002-2007; Associate Editor, *Cancer Research*, 1999-2002; Editorial Advisory Board, *Journal of Pharmacology and Experimental Therapeutics*, 1999; Editorial Academy, *International Journal of Oncology*, 1996-present; International Advisory Board, *Tumori*, 1993-present; Co-editor (for North America) with I.B. Holland, K. Kuchler and C.F. Higgins. *ABC-Transporters from Bacteria to Humans* (Academic Press), 2000-present; Deputy Editor, *Molecular Cancer Therapeutics*, 2000-present;

External Referee for Tenure & Promotion: Sloan-Kettering Institute for Cancer Research, New York, 2000; University of Western Ontario, London (Ont.), 2000;

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; EMBO Journal; Lung Cancer;

Reviewer for: CIHR; NCI; Netherlands Cancer Society.

Dr. B. Elliott: External Reviewer for: CIHR and NSERC.

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

Dr. P. Greer: Member, Grants Review Committee for: Cancer Research Society, Inc.; NCIC; CHIR External Reviewer for Journals: Molecular and Cellular Biology

Dr. D. Hurlbut: Reviewer, Queen's Medical School Journal.

Dr. R. Kisilevsky: Editorial Boards for: Amyloid, Int. Rev. Exp. Pathol.; External Referee for Grants from: MRC, NSERC, Alzheimer's Society of Canada, Alzheimer's Society of USA, Institute for the Study of Aging (USA), Deutsche Forshungsgemeinshaft (Germany); Referee for Journals: Amyloid, Am. J. Pathology, Clin. Chem. & Lab. Medicine, J. Neurochemistry, J. Structural Biology, Nature Medicine, Scand. J. Immunology, J. Clin. Invest.

Dr. D. LeBrun: Grant Review Panels: NCIC, KGH Pathology Clinical Trust Fund; Ad Hoc Reviewer for: MRC; Blood; Biochemistry & Cell Biology; American Journal of Pathology; Reviewer of Ontario Graduate Studentship Applications.

Dr. D. Lillicrap: External Reviewer, MRC; Member, Editorial Board: Hemophilia Forum, Clinical and Laboratory Hematology; Chairperson, Review Committee, H & S Foundation; Member, Experimental Medicine Review Panel, CIHR; Member, Research and Development Advisory committee, CBS; Senior Scholar, Review Panel, Alberta Heritage Foundation for Medical Research; Member, Review Committee, HSFO, Research and Development; Reviewer for: British Journal of Hematology, Thrombosis and Hemostasis, Blood, Hemophilia, American Journal of Human Genetics.

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

Dr. D.H. Maurice: Reviewer for: Heart & Stroke Foundation of Canada, CIHR, NIH; External Reviewer for the Following Journals: Journal of Biological Chemistry; Molecular Cellular Biology, Biology, Molecular Pharmacology, Journal of Pharmacology and Experimental Therapeutics, Journal of Vascular Biology, Canadian Journal of Physiology and Pharmacology.

Dr. M. Raymond: Managing Editor, Clinical Biochemistry; Referee: Clinical Biochemistry.

Dr. J. Rossiter: External Referee for: Heart and Stroke Foundation.

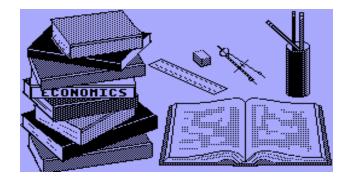
Dr. S. SenGupta: Editor-in-Chief, OAP Newsletter; External Grant Reviewer for CIHR; Medical Director's column in Kingston Hospitals' Laboratory Outreach Program Newsletter; CAP Newsletter Column.

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

Dr. L. Tomalty: External Reviewer, St. George's School of Medicine, Nov. 2000.

Dr. D. Zoutman: 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 2000



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