Pathology News

Vol. 8#10 October 2001



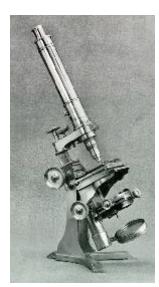
Publishing Info

Pathology News
Department of Pathology,
Richardson Labs
Queen's University, Kingston, Ontario K7L 3N6
Canada

Available in adobe acrobat format at http://www.path.queensu.ca/

Published monthly, Circulation 150
For article submissions
mailto: Newsletter, Dept of Pathology, Richardson
Labs, Queen's University, Kingston Ont K7L 3N6
or FAX to 613-533-2907
or email to:

newsletter@cliff.path.queensu.ca



We publish only that which is submitted! (There are no expense accounts and no reporters) If there is no news about your area that means we haven't received any!



rom the Head

Congratulations to Dr. David Lillicrap who has just been awarded a Queen's University Prize for Excellence in Research for 2001. Our nominating letter explains why there was unanimous support on the Queen's Research Advisory Committee in support of David.

Re: Prize for Excellence in Research - Dr. David Lillicrap

We nominate Dr. David Lillicrap, a Professor in the Department of Pathology, for the 2001 University Prize for Excellence in Research.

Dr. Lillicrap's research focus is the molecular genetic investigation of hemostasis predominantly related to the interactions amongst Factors VIII and IX and von Willebrand Factor (vWF). Deficiencies in these proteins are the causes of humankind's most common bleeding disorders. Dr. Lillicrap's work since 1985 has probed the basic genetic mechanisms regulating the expression of these proteins. One of his major achievements includes the recent elucidation of the complex mechanisms that regulate transcription of the Factor VIII gene. These studies documented the critical role of hepatocyte nuclear factor binding and the synergistic activation role of two leucine zipper transcription factors. Dr. Lillicrap and his collaborator, Dr. Chris Mueller, have also clarified the developmental regulation of Factor IX gene expression. They have elucidated the synergistic interaction between

several transcription factors and the role of androgens in transactivation of Factor IX expression. These insights have been published in the pre-eminent journals of this research area including: *Nature Genetics, Blood, Thrombosis and Hemostasis*, and *DNA & Cell Biology*.

Dr. Lillicrap's research work extends from the regulatory control of the genes of the most important proteins involved in hemostasis and thrombosis to the clinic. His intimate knowledge of the clinical dimensions of this area have led to appropriately targeted translational and clinically applied research including two exciting and innovative areas. One involves gene therapy strategies for hemophilia A, which is caused by a deficiency in Factor VIII. Dr. Lillicrap cloned the canine Factor VIII gene from our hemophiliac dog colony and he is actively involved in the development of a variety of gene therapy strategies for Hemophilia A. This work is generously funded by the Canadian Hemophilia Society and by collaborative contracts with major United States biotechnology groups including Genetic Therapy Inc. and Bayer. Dr. Lillicrap's team has achieved effective short term insertion and expression of the canine Factor VIII gene in canine and murine hepatocytes and is in the process of using more sophisticated new viral vectors with the promise of effective long term therapy.

The other expanding area of Dr. Lillicrap's research relates to molecular epidemiologic studies on genetic variations (polymorphisms) in the regulation of vWF which is of increasing clinical relevance. Some of these genetic variations lead to an increase in vWF expression with a corresponding increased adhesiveness of platelets and enhanced thrombus formation. Dr. Lillicrap has been involved in several large international studies evaluating a variety of risk factors related to ischemic heart disease with particular attention to a specific vWF genotype which is associated with increased plasma levels of the protein. This exciting work, now in its early phases, has the promise of elucidating strategies for the detection of high risk individuals for venous

thrombosis and coronary artery disease and development of preventive strategies.

The success of Dr. Lillicrap's basic research program is attested to by his continued funding by multiple agencies including the CIHR/Medical Research Council (having obtained a second CIHR grant this past year), the Heart and Stroke Foundation, the Canadian Hemophilia Society, Bayer/Canadian Red Cross and several major biotechnology contracts. His current level of annual peerreviewed operational funding is approximately \$750,000. In both 1998 and 1999 he published six papers and an additional five have been published in 2000. An additional six papers are to be submitted in the next 3 months. Most are in prominent journals with high impact factors, including the *Journal of Biological Chemistry*.

This past year Dr. Lillicrap established the National Hemophilia Mutation Testing Program with funding from Health Canada and became the recipient of the Cecil Harris Award from the Canadian Hemophilia Society for "Services to the Hemophilia Community". Internationally Dr. Lillicrap is widely recognized for his work and has been invited to multiple international symposia. In the last three years this has included Japan, Europe and the United States. In Canada, he is the national expert on vWF and currently serves as a Chairperson of the Heart and Stroke Foundation of Canada committee on thrombosis and atherosclerosis and begins his second term on the CIHR Experimental Medicine Panel.

Through his ability to combine an excellent basic biomedical research program with expertise in the development of novel, gene-based therapeutics for the treatment of human clotting diseases, Dr. Lillicrap is poised to fundamentally advance our ability to successfully treat these disorders. David Lillicrap is one of Canada's best exemplars of a basic science physician/scientist and is most worthy of recognition by Queen's University for excellence in research."

David is the sixth member of our Department to win Queen's most prestigious award for research, a

number which exceeds that of any other department in the university. Next month we'll give a synopsis of our departmental past awardees and some perspective on their achievements.

The department has a healthy tradition of regularly rotating a variety of university and hospital administrative responsibilities.

Lois Mulligan, the Head of our Graduate Committee for the last 3 years has guided us through the early and mid stages of the faculty reorganization of the Graduate Program and improving our administrative process. Our program is increasingly successful in attracting excellent students and has a higher proportion of externally funded awards and PhD students than we have in the past. **Peter Greer** succeeded Lois as of July 1, 2001.

Lois Shepherd is stepping down as the Chief of Service of our Division of Hematopathology. Lois continues to act as the Head of Blood Bank. Over the last five years Lois has maintained the extraordinary culture of collegiality within the group and implemented the complex integration of hematopathology with clinical chemistry within the Core Laboratory and the Hotel Dieu Laboratory into the Kingston Hospitals Laboratory at KGH. As of October 1 Lois will be succeeded by **Dilys Rapson**.

Sherry Taylor will also be stepping down as of October 1 as the Chief of Service of Laboratory Genetics and will be continuing on as a Director of DNA Diagnostics. Sherry has guided us in the



integration of all laboratory genetics services on Douglas 4 and has played a major role in the province in developing the Predictive Cancer Genetics Program. Sherry will be succeeded by **Karen Harrison**, Head of Clinical Cytogenetics.

Milestones

KGH

Heather Melvin - 15 years Teresa Beasley - 25 years

or Your Info

On Saturday, August 25, 2001 the Kingston Rowing Club and the Heart and Stroke Foundation hosted the Second Annual Row for Heart Regatta. For the second year faculty, staff and students of the department participated in the event. Our team, the "Pathological Flyers", spent the summer learning to row during two, seven-week sessions, with several rowers participating in both sessions!



Our crew included Dr. Lois Mulligan, Barb Saunders, Sharon Windsor, Troy Feener, Diana Naumovski, Melissa Carter, Lee O'Brien, myself and friends, Valerie and Sofie Blazeski, Beryl Ramsey-White, Tarn White, Jaclyn Atkinson and Mary Jane Monsalves. Fun was had by all despite the odd bruise from an out-of-control oar and tired arms from carrying the boat!

The event raised \$11,000 for the Heart and Stroke Foundation. Our team alone raised \$2548 and placed first of all crews in fundraising! We would like to sincerely thank our corporate sponsors Cortec DNA Service Labs, Fisher Scientific, Invitrogen Life

Technologies, Mandel Scientific, Parteq Innovations, Roche Diagnostics and Katrina Calleja of Sarstedt Inc. for their generous donations as well as all of our friends, family and co-workers that pledged support for our crew. We look forward to getting back out on the water next summer, see you all there!

Brandy Hyndman, PhD Candidate and Team captain, Pathological Flyers 2001

Applications for Sabbatical and Academic Leave

Sabbatical and academic leave applications for all members of faculty (clinical and QUFA bargaining unit members) are due in the Faculty Office by Wednesday, October 31st. Clinical members of faculty should follow the procedures outlined in the Senate Statement on Academic Leave (approved in May 1973 and last revised in January 1995). This document is available on the Queen's web site at http://www/queensu.ca/secretariat/senate/policies. Members of the QUFA Bargaining Unit should refer to Article 27 of the Collective Agreement which is also available on the Queen's web site. The address is http://www.queensu.ca/qufa.

The completed application form (available from Dr. Manley's office) is to be accompanied by a statement from the applicant, as outlined in the relevant documents noted above, and a letter of recommendation from the Head. For faculty whose salary support is derived from an external agency, written approval from that agency must accompany the leave application.

Work-Study Program

We are writing to inform you of a major change to the Work-Study Program. Beginning with the 2001/2002 Fall/Winter version, students employed under the provisions of the program will be paid \$10.00 per hour. Currently students earn \$8.00 per hour.

The maximum entitlement for each student (over two terms) will remain unchanged at \$2,000 as will the subsidy formula (the hiring department provides 25% of the salary, Student Awards provides the remaining 75%).

As a result of this change students with a full entitlement (\$2,000) will need to work only 200 hours to earn it rather than 250 hours under the current compensation scheme.

The new salary has been implemented in response to several factors.

- The rate of pay has not been increased since 1994 despite increases in tuition and the cost of living,
- · Students in some faculties find it difficult to work the number of hours required to make maximum use of the entitlement.
- · Some employers find it difficult to employ students for the full 250 hours.

In addition to making it a little easier for students to earn their full entitlement we anticipate that this change will have a small but positive impact on the total number of positions available for students on campus.

If you have questions regarding how the implementation of this change may affect your department you are invited to contact Liann Joanette at 74044 or ldj@post.queensu.ca.

Alumni Corner

Letter from Hedy Boutros - past resident in Pathology. "Dear Dr. Manley and Editors of QPAG Newsletter: It has been sometime since I picked up my pen to write anything but cheques, autopsy reports and correction of surgical pathology reports. The latter, alas! I do quite often. What with a continuous flow of charming new secretaries assigned to our hospital situated in multicultural Toronto, and what with my faint accent, or loss of teeth, or lack of speech, or loss of skin turgidity, or all of the above, my g's, d's, s's and f's are persistently interchanged by the confused typist at the receiving end of the dictaphone. The result is an interesting medley of phrases, which would raise more than a surgeon's

eyebrow if received as is. Surgeons, as you all are aware, are never known to be struck speechless. *Au contraire*, they react to shock by being profusely articulate, using a lot of g's, d's, s's and particularly f's in very unbecoming words.

Those of you who know me personally, know I like to write. I still do the odd rhyme, hurriedly jotted down, usually as a farewell note, or a welcoming note or a birthday card, etc.; but I have not managed so much as a paragraph elsewhere, be it comedy or tragedy. However, I have decided to resurface once more, a characteristic I share with other Egyptian mummies. Once the decision was made to write again, I felt a certain urgency to rush, lest in the next Annual QPAG Newsletter, I would be mentioned amongst the many listed "In Memoriam".

Although, I am an Egyptian mummy, I somehow do not like to know many dead people (autopsies included). However, the news of Brad Tooley's demise particularly hit home. Brad was a lovely man and a friend in need and not one to boast of his many accomplishments. He did his work in silence and with dignity. His advice was always to the point. He performed hundreds, maybe thousands of autopsies in his lifetime, many of them were performed on his own personal friends as he knew nearly everyone in Kingston, yet he never complained but suffered in silence. He will be dearly missed.

To return to the living! Congratulations on your Newsletter. I enjoyed the historical aspect as well as the pictures at the back: "Now and Then". I had a chuckle over the latter. I notice that true to tradition, Queen's Pathology Department then and now allow only one "single white female" at a time or rather per picture. No offense to Dr. Haust, who is a great researcher and pathologist and a wonderful lady and a personal friend of mine. I got to know her better at the University of Western, London, Ontario where I did my fellowship in cardiac and surgical pathology.

Other suggestions for future newsletters include: lots of pictures, caricatures and jokes; the most embarrassing event during your career in pathology; the funniest?

On a more serious note: "tips on TIME-SAVERS in routine pathology: such as synoptic reporting and how to better organize your workload to avoid long hours, long reports, back aches and computer-related tendinitis; suggestions for CME (which courses/conferences are Awesome!), etc.

So, until next year I wish you all the best of health and Good luck. Yours sincerely, Dr. Hedy Boutros"

rants'N'Such

The Grant supplement will no longer be included in paper form. It will only be available from the website listed below:

http://www.path.queensu.ca/pathnews/grants.pdf

Dr. Karen Harrison has received funding from The Ontario Association of Medical Laboratories (OAML) in the amount of \$34,907.86 for research into "Molecular Cytogenetic Evaluation of Subtle Duplications Using Fibre FISH".

ichardson Research Seminars
Department of Pathology
Seminar Schedule 2001 - 2002
Tuesdays @ 4:00 p.m.
Richardson Amphitheater, Richardson

Laboratory

October 9 TBA

October 16 Yotis Senis, PhD Student

October 23 Dr. Anne-Marie Mes-Masson

October 30 Glenn MacLean, PhD Student

November 6 Dr. Barbara Vanderhyden

November 13 Dr. Rashmi Kothary

November 20 Ted Wright, PhD Student

r. Dexter's Corner

Of Medical Students and Mausoleums*



Canoeing eastward along the shores of Lake Ontario from Adolphustown, past gargantuan palatial modern houses, one arrives at a shore-based lighthouse. It is, of course, un-manned or un-personned as nearly all lighthouses are now. Slightly obscured by the trees on the shore, is a substantial limestone building quite out of place to the dwellings nearby. Closer inspection show it to be a formidable structure - double walled, the

outer limestone, the inner brick with semicircular windows, also double-barred on the east and west sides. The limestone was imported by ship from Kingston and resembles many of our gaols, court houses and University and RMC buildings. The structure is well maintained - recently pointed stone work and a nearby ladder awaits the tinsmith for a minor roofing repair. The grass around is freshly mown, and an elegant cast-iron fence surrounds an estimated two acre plot. Over the portico is the name "Allison Mausoleum 1823", and peering through the cobwebs one can just see the tiers of Allison family members' remains.

The local history was of the original Alison who made his fortune in the lumber business in Michigan in the early 1800's. He owned, at one time, nearly half the county which included a substantial farm. A large mansion, which now houses the United Empire Loyalist Museum at the St. Lawrence River Park at Adolphustown, was also built by him. Descendants representing great-great etc-sons still reside in the area.

The link to Queen's would seem tenuous at best, but legend has it that the difficulty in obtaining bodies for anatomic dissection led medical students to extraordinary lengths and distances in the search for suitable "material." The bars on the west-facing window of the Mausoleum are bent wide enough to allow a body through. Coincidently, one of the Alison "Greats" was a physician in training at Queen's in the late 1800's and the thesis was that he would be peculiarly fore-warned to recent burials in the family crypt. The bent bars gave evidence to a body-snatching attempt by medical students from Queen's. (They were caught as legend has it, before the body got to Kingston).

What a contrast today's Class of 2005! What adventures have they missed? Gone are the midnight marauding of local cemeteries and family crypts! Neither Anatomy nor Pathology seem quite as exciting and, certainly, not as encouraging of illegal acts. Perhaps we have become too staid with the passage of years, but it does reflect on the evolution and maturity of Pathology over the past double century, that we do not have to search out our specimens for teaching in quite the same way. I see through my open office door another cart of Pathology *materiel* headed toward the lab drawn, not by a horse, but by a Lab Aide. Yes, indeed, times have changed.



* Mausoleum n. magnificent tomb, originally that of Mausolus, King of Caria, erected at his order by his Queen, Artemisia, in the 4th century, BC (Concise Oxford Dictionary).

PROGRAMMATIC COMPETENCE, CONTINENCE, AND CERTIFICATION

... lingua in bucca

Following the recent Internal Review of the General Pathology Programme, one was impressed by the need for detailed Guidelines, Goals, and Objectives for all things. Indeed, obsession appeared predominant to the detriment of sensibility and the accourrements of wisdom normally associated with adulthood. Of course, one cannot blame the Royal College for it is but one (sometimes irritating) grain of sand in a large beachhead of institutional bureaucracy.

<u>DRAFT #6: ORIENTATION, GOALS, AND OBJECTIVES FOR THE PROPER USE OF THE WATER</u> <u>CLOSET</u>

Orientation

- It is advisable, in order to achieve the Goals and Objectives, to actually enter the bathroom (the reasons will become obvious)
- This is achieved through a twisting or turning motion of a metal rounded object (known as a knob). These objects are attached to vertical slabs in the wall known as doors. Successful knob turning can be evaluated in two ways. The first is by a clicking noise, and the second by the movement of the door. *Hint: for the first time users, it is best to enlarge this gap substantially in order to enter the room. Failure to do so may be associated with nasal distress and evidence of psychologic stress.*
- For privacy, it is wise to close the door following entry by a reversal of the previous steps. Evaluation of success is both aural and visual. The common lack of windows in the room results in total darkness. First year residents should follow the Orientation Guide for location and operation of the light switch. A senior resident may serve as a docent or guide and accompany the first time user until sufficient confidence and expertise is attained. Small group orientation sessions are not advised due to limited space.

As for general Orientation Guidelines, it is advisable to use an up right stance as the alignment of the room is more vertical then horizontal. A variety of technical problems are associated with a crouching or crawling approach and a poor evaluation will ensue.

Goals and Objectives

1. Relief of Bodily Fluids

Satisfactory End Points:

- (a) Empty urinary bladder
- (b) Neat working area
- (c) Ability to repeat procedure unaided
- (d) Graded Responsibility
 - certification as an operator
 - certification as a teacher (senior resident)

2. Use of Appropriate Receptacle

Pattern recognition:

Two similar receptacles commonly confused by first year residents may result in unsatisfactory performance and evaluation



Comment:

Despite Orientation sessions, Residents may not be able to distinguish between the sink and the toilet. Previous College Surveys have resulted in Minor Recommendations and, in a few cases, Conditional Programme Approval because of weaknesses in both the Training and the Evaluation of this major component of the Core Programme. A recent survey has, however, shown an unexplained trend that shorter residents have a significantly higher level of compliance than taller residents (P>0.00001). There was no difference between the two sexes. Further, taller residents (> 6'4") had a 50 percent failure rate. Additional studies are clearly necessary and research funds have been sought through the MOHLTC following a serendipitous observation that a similar trend may be occurring amongst ambulatory patients.

Innovative, enhanced, and focussed education on the use and safe operation of the facilities is clearly warranted.

The Manual of Goals and Objectives should be available in each washroom. It must be updated each year by the Programme Director. Residents must indicate that they have read the contents by a signature sheet inside the front cover. Appropriately certified operators and educators must be listed, annually recertified, and identified by beeper numbers for use in an emergency. Senior Residents or Pathology Assistants may act as guides in the operation of the facility.

Documentation of the number of visits, times, and volumes for each resident are required to ensure eligibility for both the Royal College Certification Process and the American Boards.

After each three month rotation, a practical and oral examination supervised and given by Senior Pathologists will be administered. Evaluation of performance and identification of perceived weaknesses, strengths, or areas for future study will be identified to the resident in an interactive forum. For each floor of the facility, an Ombudsperson will be appointed to deal with resolution issues.

ITERs will be modified before the next Interim Review to provide an evaluative tool.

Future Considerations

Use of computerized teaching tools have not been maximally used in this area. Excellent software programmes, CDs, and Interactive Teaching Programmes can be applied ideally with minimal facility modification (usually a grounded electrical receptacle). In the absence of on-site Teaching Programmes, a Beta-testing version of software may be available soon through the Royal College with associated Maintenance of Certification points attributable on the basis of 1 point per 1 hour of CME (equivalent to 1 hour of WCOT ... Water Closet Occupation Time).

A certification for **Special Competence** is under consideration. Base requirement would include Certification in General Pathology plus 5 years of satisfactory performance in a Regional or Academic Centre. Candidates with

Anatomic Pathology, Neuropathology, and Haematopathology Certification will require an additional year of residency at an approved University Training Programme (see Registrar for details).

Some of the difficulties with the above elliptical absurd view is that it is so easy to fall deeply into the lingua franca of the bureaucracy of paperwork. Reams of paper have and will be consumed, filled with Objectives, Goals, and Procedures - each more detailed than the preceding, covering ever more remote and unlikely scenarios. So accept this little essay in the spirit in which it was written. For we must laugh at ourselves sometimes. It is, after all, healthy.

D. Dexter, FRCPC (Fellow of the Royal College P Competent)

Contributors:

Major Financial support provided by WHO, with minor contributions by WHAT and WHEN

D. Dexter wrote the article

C. Rowlands proposed the topic and provided encouragement

M. Croft typed the article

You read the article

obs Available McGill University

The Department of Pathology, McGill University and McGill University Health Centre (MUHC) invite applications for a full time staff position in Gastrointestinal Surgical Pathology. The position is open to new graduates and experienced pathologists with special interest or expertise in gastrointestinal liver and pancreatic disease. The successful candidate will participate in general diagnostic work and the teaching of medical students and residents. Opportunity for collaborative or independent research is available. Candidates should be certified in Anatomic Pathology by the Royal College of Physicians and surgeons of Canada, the College des Medicins du Quebec and/or the American Board of Pathology.

Please send letter of application, recent curriculum vitae and names and coordinates of at least 3 referees by October 31, 2001 to: Dr. Carolyn Compton, Professor and Chair, Department of Pathology, McGill University, 3775 University St., Room B15, Montreal, QC H3A 2B4. Tel: 514-398-7192, ext. 7194; Fax: 514-398-7446; e-mail: compton@med.mcgill.ca

McGill University

The Department of Pathology, McGill University and McGill University Health Centre (MUHC) invite applications for two full time staff positions in Anatomic Pathology. The positions are open to new graduates and experienced pathologists. The successful candidates will participate in general diagnostic work and the teaching of medical students and residents. Established expertise or willingness to develop expertise in one or more specialty areas (e.g., cytopathology, cardiovascular, transplant, dermatopathology, soft tissue/bone and head and neck pathology) is desired. Opportunity for collaborative or independent research is available. Candidates should be certified in Anatomic Pathology by the Royal College of Physicians and Surgeons of Canada and/or the American Board of Pathology.

In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. McGill University is committed to employment equity and encourages applications from all qualified men and women, including but not limited to visible minorities, aboriginal peoples, and persons with disabilities.

Please send letter of application, recent curriculum vitae and names and coordinates of at least 3 referees by November 15th, 2001 to:

Dr. Carolyn Compton, Professor and Chair, Department of Pathology, McGill University

3775 University St., Room B15, Montreal, QC H3A 2B4 Canada

Tel: (514) 398-7192 Ext. 00515; FAX: (514) 398-7446; Email: compton@med.mcgill.ca

Hospital for Sick Children

The position is for a senior MD or PhD microbiologist who has Canadian Specialty Certification in Medical Microbiology or equivalent. Particular expertise in the application of molecular techniques to diagnostic microbiology and to research endeavours in molecular microbiology would be an asset.

The successful candidate is expected to coordinate the microbiology service, develop a high caliber research focus in pediatric microbiology and be eligible for a cross-appointment at an Associate or Professor level in the Department of Laboratory Medicine and Pathobiology in the Faculty of Medicine at the University of Toronto.

Candidates should submit their curriculum vitae and the names and addresses of three referees before December 1, 2001 to: Dr. L. Becker, Chief, Department of Pediatric Laboratory Medicine, The Hospital for Sick Children, 555 University Avenue, Toronto, ON M5G 1X8. Tel: 416-813-5970; Fax: 416-813-5974.

etwork News

Late September / early

October we ran into some severe network printing problems requiring the restarting of the main file server Richlab1, more times than I can remember.

The **PCS** (**Patient Care System**) will be undergoing a complete overhaul on Monday Oct 8th. On Tuesday morning Oct 9th I'll be coming around to those workstation with the PCS client installed and make the necessary configuration changes to allow you to connect to the PCS. Luckily (for me) only about 6 people use it on a daily basis and they will be scheduled first. Others will follow. If you find you need yours RIGHT AWAY and it isn't working, call me FIRST (as opposed to the KGH Help Desk)

Email Traffic:

September 1995: 2018 September 1996: 3485 September 1997: 5733 September 1998: 11484 September 1999: 22578 September 2000: 20618 September 2001: 27677

The above lists the number of pieces of email in and out, and in general, they are getting bigger as more and

more people send more and larger attachments.

Pegasus Mail v3.12c Email Tips



The current version of Pegasus came out on February 24th, 2000 and we were using it shortly after that. It has been extremely stable

and has most of the features we have come to expect in an email system. We are now expecting v4.0 to come out for testing in early October.

LISImage



The digital image web site is up and running at http://lisimage/

The newest addition to the image database are EMSCANs (with 1 case and 18 images to date).

Date	#cases	#photo	os Total Gb
2001.0	1 :00	=====	=========
2001 Oct 04	1632	6342	5.1
2001 Sept 12	1529	5988	4.5
2001 August 7	1501	5849	5.4

Laptop #2

A 2nd departmental laptop equipped with ZIP Drive will be entering service before the end of October. It will be booked in the same way as Laptop #1 and is already on the OUTLOOK calendar system. We are just awaiting a carry bag for it with room enough for the wall external adapter and USB zip drive.

