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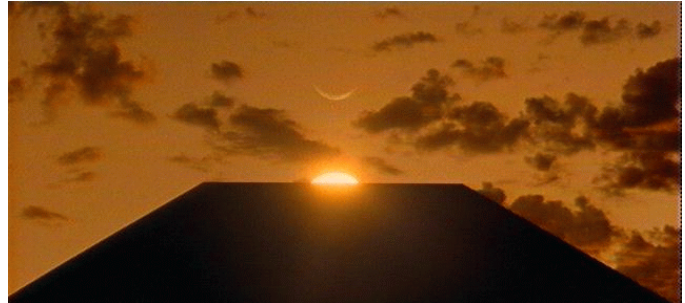
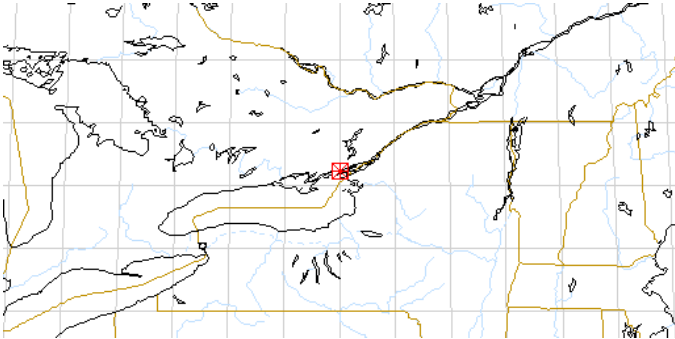
# Pathology News

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Vol. 8#07

July 2001

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## Publishing Info

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or email to:

[newsletter@cliff.path.queensu.ca](mailto: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!

## From the Head

Dr. P. Manley

I am pleased to have **Dr. Daria Haust** return to the Department to complete her work on our 20<sup>th</sup> Century History. Dr. Haust will be on Douglas 2 Room 8-203, extension 4176. We will begin publishing the first segments of our history in the August Newsletter.

Congratulations to **Dr. S. SenGupta** on his recent election to office as the President of the Canadian Association of Pathologists for a two year term.

I am delighted to welcome two new residents to our Department, **Drs. Mohammed Khodabandehloo** and **Benjamin Mathew**. For the first time in several years, we and all the other Ontario schools have filled our residency positions and we are hopeful that this is a harbinger of better things to come. Currently there are only ten residency positions shared amongst five Ontario schools. At Queen's we have gradually decreased from 5 to 2 positions and at Toronto from 11 to 3. The consequence of so few residents graduating from our programs is an abundance of staff appointments across the country that are funded and unfilled. There are approximately 20 tissue pathology unfilled positions in Ontario academic health science centres alone. Our solutions are unclear as the

problems are shared with many other specialties. Pathology Heads are making determined efforts to attract medical students into pathology. The recent abundance of available positions and rapidly rising incomes will be helpful. Many of us also have proactive programs to attract our own medical students into pathology as a career. These have included student summer programs, increased career promotion with students in first year medical lectures and seminars, elective programs in later years and the greater use of our own residents as attractive role models for students. Now that we have filled all of our positions, we will try to obtain a greater number of residency positions throughout Ontario for pathology programs.

We'll have two excellent residents, **Drs. Tim Childs and Jason Sack** graduating this year. When they began the program they were extremely concerned about the availability of jobs. Residents finishing two or three years ago were unable to obtain positions in Canada and several have found excellent positions in the US. **Plamen Kossev** is an Assistant Professor at the University of Pennsylvania, **Nav Gill** has just taken a position with an emerging private laboratory in Salt Lake City. Jason and Tim in contrast began to receive letters of interest from other Canadian hospitals while they had 15 months left to train.

**Dr. David Hurlbut**, our Director of Postgraduate Education Program was a stalwart during this dramatic downsizing of Canadian Residency Programs and all the associated agonizing about solutions. David helped reorganize the teaching for residents, making it pertinent to our subspecialty practice and initiated regularly scheduled gross and microscopic teaching rounds. After serving five years as the Director of AP and three years as the overall Program Director David has been succeeded by **Dr. Caroline Rowlands**. I am hopeful that the increasing number of students entering medical school and the growing attractiveness of pathology will help us increase the number of excellent residents within our program.

Paul Manley, MD

## For Your Info

### Medical Photography shutdown

Due to renovations taking place in Etherington Hall, Medical Photography will be completely shut down from July 16 to Aug. 3. They will re-open on Tues Aug. 7th. Please have any work needed before these dates in to them by July 9th at the latest.

### Forensic Pathology Workshop

The Department of Laboratory Medicine, Saskatoon District Health invites staff and residents to a special Forensic Pathology Workshop which will be held August 10-12, 2001. They have designed their program with the support of Saskatoon District Health, the Saskatchewan Association of Pathologists, Saskatoon Police Service and the Saskatchewan RCMP Major Crimes Division. If you are interested in attending and would like a copy of the Workshop brochure and registration form please see Barb Latimer in Dr. Manley's office.

### Milestones

15 Years Dave Piper - Clinical Labs, KGH

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## Grants'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>

### Funding Received

**Dr. Robert Kisilevsky** received a 5 year grant (2001-2006) for \$159,715/year from the CIHR. His project is entitled "Amyloidosis: An Analysis of the Causative Factors in an Experimental Murine Model". With this 5 year grant, Dr. Kisilevsky has been funded by the MRC/CIHR for 37 consecutive years. Congratulations Dr. K!!!

**Dr. Sherry Taylor** received from the KGH Research Endowment Fund \$8,724 for her project entitled "Development of Methods for the Study of Methylation Patterns of the Human Genome".

**Drs. Christine Collier, Jeremy Heaton, Mike Raymond, Alvaro Morales and Albert Clark** received from the KGH Research Endowment Fund \$9,855 for their project entitled "Free Testosterone: Which Method Provides the best Clinical Correlation?"

**Drs. Susan Cole & Roger Deeley** received a 5 year grant from the CIHR for \$182,525/year. Their project is entitled "Investigations of MRP-Mediated Drug Resistance and Xenobiotic Transport".

**Dr. Peter Greer** received a 3 year grant from the CIHR for \$127,873/year for his project entitled "A Molecular and Genetic Analysis of the Murine fer Proto-Oncogene".

**Dr. Lois Mulligan** received a 3 year grant from the CIHR for \$136,802 for her project entitled "Investigating Functional Differences between RET Receptor Isoforms".

Multidrug Resistance Protein (MRP)1 critical for conferring resistance to anthracyclines. *J. Biol. Chem.* 276: 13231-13239 (2001).

E.M. Leslie, Q. Mao, C.J. Oleschuk, R.G. Deeley and **S.P.C. Cole**. Modulation of Multidrug Resistance Protein 1 (MRP1/ABCC1) transport and ATPase activities by interaction with dietary flavonoids. *Molec. Pharmacol.* 59: 1171-1180 (2001).

K. Ito, S.L. Olsen, W. Qiu, R.G. Deeley and **S.P.C. Cole**. Mutation of a single conserved tryptophan in multidrug resistance protein 1 (MRP1/ABCC1) results in loss of drug resistance and selective loss of organic anion transport. *J. Biol. Chem.* 276: 15616-15624 (2001).

R. Zirngibl, D. Schulze, S. Mirski, **S.P.C. Cole** and P. Greer. Subcellular localization analysis of the closely related Fps/Fes and Fer protein-tyrosine kinases suggests a distinct role for Fps/Fes in vesicular trafficking. *Exp. Cell Res.* 266: 87-94 (2001).

L.C. Young, B.G. Campling, **S.P.C. Cole**, R.G. Deeley and J.H. Gerlach. Multidrug resistance proteins MRP3, MRP1 and MRP2 in lung cancer: correlation of protein levels with drug response and messenger RNA levels. *Clin. Cancer Res.* 7: 1798-1804 (2001).

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## Publications

Y.M. Qian, W.C. Song, H.R. Cui, **S.P.C. Cole** and R.G. Deeley. Glutathione stimulates sulfated estrogen transport by multidrug resistance protein 1. *J. Biol. Chem.* 276: 6404-6411 (2001).

M.F. Rosenberg, Q. Mao, A. Holzenburg, R.C. Ford, R.G. Deeley and **S.P.C. Cole**. The structure of the multidrug resistance protein 1 (MRP1/ABCC1): crystallization and single-particle analysis. *J. Biol. Chem.* 276: 16076-16082 (2001).

D. Zhang, **S.P.C. Cole** and R.G. Deeley. Identification of an amino acid residue in

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## Richardson Research Seminars

# R

Department of Pathology  
Seminar Schedule

2000 - 2001

Winter Term

Tuesdays @ 4:00 p.m.

Richardson Amphitheater, Richardson Laboratory

DATE	SPEAKER
	Closed for the summer



## D r. Dexter's Corner

### A PROBLEM WITH PILLS

A long, long time ago when life was simple, there was a singular lack of complexity to questions, problems, and answers. Whilst one might have many questions, there were often few answers. If yes or no did not suffice, then the default to God or Allah's will satisfied or, at least, ended most inquiries.

As one approached many common ailments in Victorian times, for example, the ideal therapeutic regimen was one that had a wide spectrum of action, covering multiple problems and with publicized efficacy usually in the form of glowing affidavits.

Take, for example the case of Thomas Holloway (1800-1883, *Lancet* 357:1892, 2001). Originally an apothecary (a title little used today), he stumbled on several miraculous cure-alls which he named after himself, as Holloway Ointment and Pills.

These medications were truly miraculous and were effective in the treatment of cutaneous diseases including burns, scalds, wounds, chillblain's, bites, boils, ringworm, gout, rheumatism, erysipelas, bedsores, scrofula, and basal cell carcinomas. The pills were omnipotent in their medical effects covering sciatica, paralysis, malaria, yellow fever, and the delightful malaise of "irregularities of internal organs".

Conceptually, just these two medications could replace much of a hospital's pharmacopoeia. Imagine both the simplicity of patient care, therapeutic decisions and the control of hospital costs. One gave either the "pill" or the ointment. Alas, it was not as advertised despite worldwide publicity which, at one point, painted "Take Holloway's Pills" on the great pyramids at Giza. The pills contained aloes, ginger, and soap, and the ointments beeswax and lanolin.

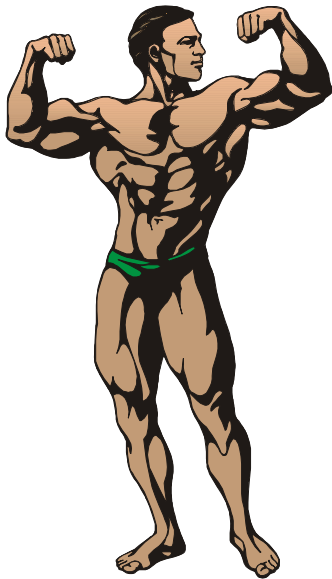
Quack medicines are around today - you can still find Carter's Little Liver Pills advertised in magazines. Pharmacies have devoted major shelf space to Alternative Medicine products and herbal Remedies. It is common to have to run the gauntlet of aisles loaded with such jars and tubes to reach the "Medical Section" to fill the order for Physician prescribed drugs.

Those drugs we receive and use go through complex evaluative procedures to ensure as much as possible that they are safe and have a positive effect on the malady diagnosed.

But what of the herbal and alternative "medications"? Are they as tightly quality controlled? Are there peer reviewed, reproducible scientific studies which support their claims? Unfortunately, for the most part, the answer is no. In some instances, the claimed active ingredient may not be present or, if present, may be mixed with other active substances not identified. The concentration claimed may vary plus or minus 20 percent, rendering dosing difficult. Batch to batch variation may be a problem. The state of an active ingredient may be difficult for a patient to comprehend. Parts of a plant such as Ephedra may be steeped to be taken as a tea, but that may not compare in ingredient activity to the pill form of Ephedra extract.

Some of the adverse cardiovascular and CNS events are well described in a recent article in the New England Journal of Medicine 2000;343:1833-8. But are we justified and reassured as to the quality of prescribed medications? Perhaps. We may well be better off and safe in assuming that the pill we have taken actually contains the right quantity of active medication. This is not so across the world. A recent alarming report from Nigeria looked at drug samples obtained from 35 pharmacies in Lagos and Abuja. Forty-eight percent did not comply with pharmacopoeial limits. Some had no active ingredient, most contained either too much or too little. Other examples come from Asia and countries such as Cambodia, Laos, Myanmar, Thailand, and Vietnam where over a third of samples of the drug Artesunate contained no drug. Dummy contraceptive pills have been sold in Brazil. The consequences may be serious. Insufficient drug concentrations may enhance the emergence of malarial resistance. It all represents an active counterfeit market with fraud and money-making at its heart, (Lancet 357:1904, 1933-1936, 1948, 2001).

Apart from a medical application (Nature's healing balm), there is a second major industry of herbal therapy and supplements with a somewhat risqué application. It is broadly speaking that of sports medicine often with an emphasis on body shaping and building. The sales pitch is strong. What budding Olympian could resist taking "Shape-Fast", "Ripped Fuel", "Metabolite 356", "Ultimate Orange", "Ultimate Nutrition", and dozens of other powerfully and suggestively named supplements?



Even more shocking (to me) is finding some of these advertisements in the sanctity of my favourite car magazine (Road and Track, August 2001, p. 139-140), e.g. '100 % guaranteed results! Steroids ... absolutely no side effects!' or 'Equa bolin steroids ... originally designed for race horses ... is now available for humans, without a prescription.'

Perhaps I am missing something. Is this subliminally suggesting that sport cars and steroids are linked? If this were true, in the Pathology Department does this mean that the owner of, for example, a Miata or even more likely a Mazda RX7, are secretly enhancing their body image and rippling musculature with Equa bolin? RX7 must infer some new, more powerful variant even stronger than the previous six.

Several points may be drawn from this essay. Taking a drug history from even the most sincere patient may not reveal use of non-prescribed herbal medications. "Herbal" medications may cause harm either alone or in combination with medications. Medical drugs manufactured around the world may not be made to the same tolerances as in Canada - if travelling, ensure adequate supplies.

Herbal and health supplements are a huge business with wide appeal as a natural therapy which may have potential serious side effects. These may be unexpected as a result of unusual combinations of active ingredients. Caveat emptor, Physician beware!

David F. Dexter, MD  
DFD:mc

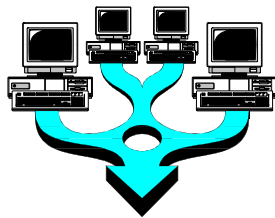
## Jobs Available

### Queen's University Job Postings

The Department of Human Resources will be posting internal job vacancies on its website throughout the summer months to augment the Gazette's summer schedule. The website will be updated with new internal postings on the following dates: July 30, 2001; August 27, 2001.

Please go to the Human Resources website - <http://www.hr.queensu.ca/Jobs/intern2.htm> - on these dates to view the new internal job postings. Job postings will also be available in hard copy on the bulletin board at Human Resources in Richardson Hall.

## Network News



**Friday May 11<sup>th</sup>** - something bad happened on that day. We started getting network disconnects with the LIS, PCS, Shire and dictation systems inside the firewall. Over the course of May, we replaced our network hubs with faster, newer and better network switches. That didn't fix the problem.

We replaced the building network router. That didn't fix the problem. More diagnostic testing revealed that the only possibility left was the KGH firewall and that nothing was going to be done about that. So we went around the problem with new wiring and new additional routers.

As of mid June all of our traffic EXCEPT for KGH bound data heads out our high speed link (100 Mb/s) to Queens, and the KGH bound traffic heads out through a slower (10 Mb/s) alternative route.

**Not a single disconnect** has been reported since these changes have been put into place.

### Pegasus Mail v3.12c Email Tips

#### PHow can I get access to all of my mail from home and not just the new mail?

For the last 5 or 6 years we have used a popmail client program (ie netscape, eudora, or pegasus mail) to access our popmail server at [cliff.path.queensu.ca](http://cliff.path.queensu.ca). From outside of the department.

On Thursday June 14<sup>th</sup> our mail server was upgraded and now has the ability to act as a POPmail server and also as an IMAP server.

**Popmail servers** only let you access \*new\* unread mail. The **IMAP server** will allow you to access all of your mail folders. This can be a very handy feature. The drawback is that a lot more data has to flow back and forth and as a result may be slower in actual use.

The details for setting up the IMAP settings are the same as those for the POP settings:

email host: [cliff.path.queensu.ca](http://cliff.path.queensu.ca)

Name: your last name on the pathnet

password: your special popmail password (not the same as your NT account login password) available from Kevin Kell if you do not already have it.

Testing with Netscape v4.77 Messenger IMAP client hasn't worked too well at all.

Pegasus Mail v3.12c works very well.

### NEW DATA PROJECTOR

As part of the autopsy refit we have purchased a new data projector. We have equipped the autopsy conference room with the existing data projector and the newer one has gone onto the cart with the microscope and presentations #1 computer, normally stored in Rich102, and will be the travelling projector. Presentations #2 computer has been moved into the Autopsy Conference Room to be used with the data projector there.

### Email Traffic:

June 1999: 20556

June 2001: 25163

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.

### Patient Care System Upgrades

First Communication June 18, 2001

Good news! Patient Care System Upgrade

The Patient Care System (PCS) is the primary patient information system used at SEOHC. It currently contains more than 600,000 electronic patient records. Steady growth in system usage coupled with aging/obsolete computer systems has led to degradation in performance as well as limiting our ability to expand functionality. As a result the facility is changing the PCS over to new, faster server computers. This change over is expected to take place in early autumn 2001.

A new software known as

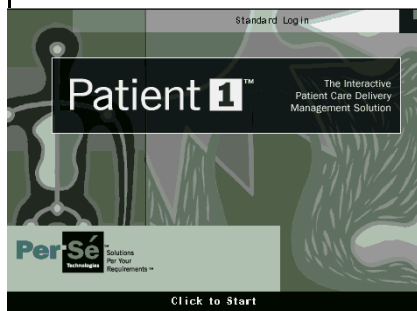
*Patient1* is required to access PCS as part of the upgrade. Currently we use older programs called *Connection Manager* and *Uterm* that you

recognize as the icon on the computer screen called *PCS Terminal*. *Patient1* is software that incorporates the look, feel and features found in modern Windows applications. *Patient1* does not require users to learn a new PCS. The PCS system functions, user passwords and workflows you are familiar with remain in place. Moving to *Patient1* is much like becoming familiar with the controls on a new car; you don't have to take your drivers license again, you are still driving on the same

6946WJ-BC2



roads using the same rules of the road. User orientation will be focused on simple Windows computer skills.



We are confident that users will appreciate the

enhancements and improved response times.

Watch here for more information as the upgrade moves towards completion.

Kevin will be performing the initial upgrades throughout July and August but you will not be using them until the PCS server switches on in early October.

### LISImage

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



Date	#cases	#photos	Total Mb
2001 July 3 <sup>rd</sup>	1414	5452	4800
2001 June 06 <sup>th</sup>	1307	4948	3000
2001 May 03 <sup>rd</sup>	1224	4520	2300
2001 April 06 <sup>th</sup>	540	2603	1059

### Server Uptimes

Wb Server 10:14am up 77 days,  
CD Server 10:10am up 47 days,  
LISImage 10:10am up 59 days

### Departmental Laptop #1

Not many people ask for the external floppy drive that is available with this laptop, but maybe that's because they don't know it exists! So if you have a small mostly text based presentation and no zip drive to transfer it, just dump your file(s) onto a floppy disk, come and get the external floppy drive from Kevin (Rich411) and use that to transfer the presentation onto the laptop.

Note that it is a good idea to copy the files from the floppy to the laptop hard drive as during the presentation itself, it will run much faster.

### LTU Summer Institute 2001

#### Workshops for Faculty

Registration is open for the Learning Technology Unit's Summer Institute Workshops: Using Technology in Your Teaching. Registration is required for all workshops and can be done

- via the on-line registration system located on the ITS Education webpage at

<<http://noteswww.queensu.ca/ITS/ltuclasses.nsf>>

- or by e-mailing your registration request to g13-1@post.queensu.ca

Workshop descriptions are listed at:

<http://www.its.queensu.ca/ltu/summer2001.html>

Workshops:

- + Introduction to Electronic Classrooms, July 26 or August 22
- + ITS-VMP Support for CD-Rom Creation, June 27 or July 17

- + PowerPoint 2000 the Basics: Part One, June 20 or July 24
- + PowerPoint 2000 the Basics: Part Two, June 26 or July 31
- + PowerPoint 2000: Beyond the Basics, July 3 or August 14
- + Getting Started with WebCT, June 21 or July 25
- + Using WebCT to Present Course Materials, July 5 or August 1
- + Adding Quizzes to WebCT Pages, July 12 or August 8
- + Using Presentation Software, July 9
- + Introduction to Scanning, July 20 or July 30

