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# Pathology News

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Figure 1 - Devil's Tower in Wyoming

## From the Head

With the arrival of spring comes news that our departmental researchers led Queen's to one of its best performances ever in the fall 2002 NCIC grant competition. Of the first year total of \$1.262M awarded, our faculty garnered the following: David LeBrun - \$157K; Susan Cole - \$149K; Bruce Elliott - \$92K; Roger Deeley and Susan Cole - \$150K. As well, cross-appointees Paul Young (Biology) and Martin Petkovich (Biochemistry) were similarly successful. In other excellent funding news, it has just been announced by the OCRN that Harriet Feilotter, in collaboration with David LeBrun, Karen Harrison, Tara Baetz and Mary Jane Cunningham, has been awarded \$300K annually for a 3-year translational project focused on follicular lymphoma. Congratulations to all involved for what has been an extraordinary performance.

The Pathology 499 research project course recently culminated with a research poster competition. Congratulations go to Jane Oh (supervised by David LeBrun) whose poster was ranked first of 81 submissions and to Christina Leung (supervisor - Marty Petkovich) who placed 6<sup>th</sup>.

Recruiting activities continue on several fronts. Interviews for one of the two available positions in the Division of Anatomic Pathology will be completed by month's end and a decision by the Search Committee will be forthcoming soon thereafter. It is also anticipated that recruitment to the second anatomic pathology position will be completed by the end of the summer. The initial level of interest in the special genetics research faculty position associated with David Lillicrap's Tier I Chair has been high and the evaluation of

candidates will be taking place this spring. The Search Committee for the Bracken Chair in Genetics has been formed and will begin its work soon.

Troy Feener, our Queen's technologist who has played such an instrumental role in the administration of the NCI CTG paraffin tumour bank, will be leaving the department May 21<sup>st</sup>. Troy's wife, Desiree Teoh, was recently matched to an anesthesiology residency position in Calgary. We will greatly miss Troy's initiative and enthusiasm but wish him and Desiree good luck as they pursue new opportunities. Recruitment for Troy's replacement has begun and the position will initially be advertised internally in the next Queen's Gazette.

Under the excellent leadership of Caroline Rowlands, our residency program in pathology is expanding. Effective July 1<sup>st</sup>, we will have three anatomic pathology and two hematopathology residents and there remains the potential that we will also have international trainees. This is wonderful news and a tribute to Caroline's enthusiasm and hard work in rebuilding our postgraduate program. We are optimistic that this growth will continue as the number of our residency positions increases in step with a system-wide increase in positions necessitated by expanding medical school enrollment.

On the hospital side, we continue to deal with the challenges presented by SARS. Dick Zoutman, our Service Chief of Microbiology and Director of Infection Control Service, was seconded to Toronto to act as Chair of the Scientific Committee which is advising on the SARS control program. This is a tribute to Dick's widely recognized expertise and leadership in infectious diseases and infection control.

The KGH administration has approved our request to hire a laboratory quality manager, a position that will prove extremely important in

the implementation and administration of our quality management program. Kudos go to John Stoneman and Sandip SenGupta without whose hard work and determination this initiative would not have been successful.

The establishment of a SEAMO accountability framework continues. We have already signed off on our Departmental Role Description and a Core Deliverables Data Set, which will define how our workload will be measured, is nearing completion. Individual role descriptions will be developed for all SEAMO members and I will be working with the faculty to complete them during the spring.

The process of establishing our SEAMO accountability framework dovetails well with our departmental strategic planning initiative. The development of the Mission, Vision and Values Statement is in its last stage and I anticipate will be completed by the end of April. The strategic planning phase will follow during May and June. The entire department will be engaged in this process and I encourage everyone to get involved in setting the future course of the department.

The Queen's University Senate has approved our request to change our university departmental name to "Department of Pathology and Molecular Medicine". The process by which we undertake changing the name of the hospital department has begun and this formality should not take very long - our metamorphosis is almost complete!

I would like to let everyone know that Paul Manley will be leaving the department shortly to take an extremely well deserved administrative leave. Paul and Kathy will be spending the year in London, England, where Paul will be pursuing interests in hepatic and gastrointestinal pathology at King's College Hospital. We wish both Paul and Kathy all the best for a great year!

Iain D. Young, MD

## **F**or Your Info

From the QMPLS newsletter: At the NORONT Convention in Toronto, Dave More provided a graphic explanation of criminal pathology on Thursday March 6<sup>th</sup>.

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### **QUFA Members Making Application For Renewal, Tenure, Promotion Or Continuing Appointment - 2003**

Faculty governed by the Collective Agreement between Queen's University and Queen's University Faculty Association who may be making application for Renewal, Tenure, Promotion or Continuing Appointment, are advised that the deadline for the receipt of such applications is September 1, 2003. Members are referred to the following Articles in the Collective Agreement for information: Article 24 -Employment Equity; Article 28 -Procedures for Personnel Decisions; Article 30 - Renewal; Article 31 - Tenure/Continuing Appointment; Article 32 - Promotion.

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### **The M. Daria Haust Trust Fund Application: Opportunities for Special Travel**

Applications are once again invited for the above mentioned fund. The Terms of Reference are to provide educational leaves for faculty members with primary appointments for continuing education and research. The Committee of Robert Kisilevsky, Dave Lillicrap and Susan Cole will focus on those leaves which will enable faculty to significantly increase their expertise in a particular area or to learn a special technique. These funds will be seen as supplementary to existing travel and research funds and can only be expended by the individual faculty member.

The application should consist of a one page letter defining the purpose of the trip and the value to the individual faculty member and to the department and a separate detailed estimate of the expenses. Applications may be made now for the academic year 2003-2004 and should be submitted to my office by **April 25<sup>th</sup>**.

The maximum single grant this year will be \$5,000.

*From I.D. Young, MD*

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### **G**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>

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## **Pathnet Tips**

Do you have images and files on PHOTOMIC (Douglas1 high resolution digital microscope camera)? People normally take pictures and store them on D:\TEMPIMAGES and then go and retrieve the files from their own desktop and store them on their LOCAL (on your own workstation) drive.

If so, please be aware that the entire D:\tempimages drive has filled up with files that people have not deleted, so We (Lloyd and myself) will have to go in and start wholesale deleting of files in those areas.

The purpose of D:\TEMPIMAGES is for TEMPORARY (hence the "TEMP" in TEMPIMAGES) storage of files, normally for up to a week to give you time to move them.

If you do not have room to move them, or are unable to move them, then we recommend bringing blank CDR media to Burn them onto a CD and then delete them from the hard drive. **Any files over six months old will be going/deleted just after you receive this newsletter. Contact Lloyd ASAP if you have concerns about files.**

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# D r. Dexter's Corner

## The trouble with Herb(s)

There has been much recent interest on the effects, any or none, good or bad of herbal 'medications' or preparations. It is known that most people consider herbals as natural and harmless products and many patients particularly with chronic or malignant illness supplement their prescribed medication with a pot-pourri of herbal preparations. This mix of unknown potential activities may result in serious morbidity and even mortality. There is much miss-information and unjustified claims in the herbal literature as relatively few preparations have been scientifically evaluated and validated. No prescribed drug would be allowed onto the market without exhaustive testing and close monitoring for side effects. Even with that degree of increasingly demanding scrutiny some drugs do have to be withdrawn for untoward reactions. The purity, the deliverable biologic activity, and the batch to batch constancy are for many herbal preparations either unknown or widely variable in potency or contain a complex mix of pharmacologically active compounds, the impact all of which becomes an unpredictable witches brew when added to prescribed medications in a live patient.

As we begin to more formally evaluate each of the very long list of herbals to determine effectiveness or lack of, we start to develop a reliable data bank with evidence-based patient benefit. A more difficult task is to remove those substances of unproven worth and those that are harmful. This is the interface between science and lore and the disputation of folk 'medicine' is a difficult challenge. The dictated removal by fiat or legislation by no means ensures disappearance from the underground supply lines for the committed naturalist.

A recent Web site may be a useful resource for herbs and botanicals from Memorial Sloan-Kettering Cancer Center .

<http://www.mskcc.org/mskcc/html/11570.cfm>



## A CLASH OF PRIORITIES

The problem with research, innovation, and discovery is that there is far too much of it. New knowledge needs to be banned. That the old way, tried and true, shall be the mantra of the future will guide us forthwith.

A recent newsflash highlighted the opportunities for acquisition of new gizmos before anyone else. Visit the high-technology region of Tokyo, Japan. Watch videos and camera phones were some of the leading edge electronic developments available. Our insatiable thirst for new and improved has become unshakable – even rabid. My theory is that it started anew with soap commercials (at least as one reflects on the Television era). Every product was new, improved, more powerful – clothes would be whiter, colours much brighter. Cleaning power was enzyme-enhanced – never mind the allergies. This phenomenon is repeated for product after product from toothpaste to Toyotas. Madison Avenue has a lot to answer for!

The effect is a mass indoctrination of the populace. Our expectations are now barely and, in some cases, rarely attainable. Gratification must be instant. Envy of a neighbour's new vehicle

somehow leads to a pressured demand for an equivalent or better one. That demand seems to be shifting from a yen to a perceived right – quite a different matter.

<sup>(1)</sup>Lance Liotta, writing in *Nature*, highlights a report on cancers potential progression being related to unique groups of genes expressed in but a few cells in the primary tumour. Accompanying papers using powerful tools of gene expression array analysis have identified gene molecular signature which correlated with metastasis. Initially using a 128 gene set exciting correlative data was obtained. Reduction to a smaller set of 21 probes representing 17 unique genes, recapitulated the outcome distinction. Solid tumours carrying the gene-expression signature were most likely to be associated with metastasis and poor clinical outcome ( $P < 0.03$ ). Further, this is encoded within the bulk of the primary tumour – a challenge to the concept of that only rare cells within the primary carry the potential to metastasize.

Predicting tumour prognosis is our business. It is what clinicians want to know and it is what patients want to know. The pathology laboratories have introduced, without much financial support, powerful tools to assist - immunoperoxidase testing, flow cytometry, and a variety of DNA and molecular diagnostics. Microarrays are now on deck, pounding at the laboratory doors to move in from the research laboratories. New research findings drive the process. We publish with pride our research. Our colleagues acquire the new information and in a recent dramatic shift, our patients acquire the same knowledge. From their perspective, it surely does not seem unreasonable to expect as a deliverable, the “state of the art diagnostic testing”. This is both difficult to define and to embrace. We know that there is not the same access to sophisticated laboratory analysis in small or remote healthcare centres versus those of a large city or between countries.

What is on the menu of analysis is not open-ended. It is limited by resource. This slows the adaptation of research laboratory techniques to the hospital laboratory bench and the gap and time delay is lengthening. New discoveries overwhelm our senses in just the sheer volume of new knowledge and its potential application to patient care.

As a hospital, the need for Operating Room equipment, a new clinic, transplant programmes, MRIs, renovations, supplies, and spiralling salary costs all compete for too few dollars. Almost desperate processes have to be instituted to attempt to prioritize which initiatives can even be considered. So it is that transplant programmes may compete for consideration with expansion of microarray capabilities. Both benefit patient care, but the relative worth is a true Gordian knot.

The alternative is no better. The ostrich approach of deliberate ignorance to the fast pace of research and its application will not do. It is indeed a conundrum. I do not think that our resource managers either reject or deny the merits of the Science of Discovery. It is just that the money bags are down to small change and subway tokens. We just cannot get there from here ..... yet!

(Ref: <sup>(1)</sup> *Nature Genetics* 33;10-11:49-54, 2003).

*The thoughts expressed above were stimulated by a recent Haematology Journal Club discussion by Dr. D. Lillicrap.*

**David F. Dexter, MD**



Alexander and the Gordian Knot

## Seeking Employment

Hello, I am a 4th year Life Science student here at Queen's. I am applying for a master's degree in various programs including to Pathology for the coming September. I was wondering if there happened to be any positions for a summer lab position with you or in the department. If there were, I would be very interested in applying as I want to get some valuable lab/research experience. Thanks for your time. Please contact me at: 9lm6@qlink.queensu.ca

Leo Mok

### Volunteer

I am a first year student enrolled in Life Sciences here at Queen's University. I am really enjoying my first year, but I am really looking forward to the later years in which the required courses become more specific to my interests, in particular, anatomy. I am a hardworking student and I excel in English as well as the sciences.

I was given your department and mailing information by Thomas Wilson, the Supervising Coroner from the Southwestern Region, while inquiring about summer employment positions and also volunteer work. I am planning on living in Collingwood, ON this summer; however, I would be interested in volunteer positions within the Pathology Department for the next school term if available, or in any suggestions that you might have for related volunteer work.

Alex Little

533-8528 (until the end of April); 519-986-4369 (summer); e-mail: 2agl@qlink.queensu.ca. See Barb Latimer in Dr. Young's office for a copy of his CV.

## Publications

R.T. Hayden, **P.A. Isotalo**, T. Parrett, D.M. Wolk, X. Zian, G.D. Roberts and R.V. Lloyd  
In Situ Hybridization for the Differentiation of *Aspergillus*, *Fusarium* and *Pseudallescheria* Species in Tissue Section.  
Diagnostic Molecular Pathology 12(1): 21-26, 2003.

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### NEW QUEEN'S RESEARCHERS' WEBSITE HAS JUST BEEN LAUNCHED!!!

Queen's Researchers' now have a new and improved website to better meet their needs!

Researchers will now see a new and much better look when they look at the Vice-Principal (Research), Office of Research Services and eQUIP web pages. We have redesigned and reorganized the site to serve you better. Most web pages have a set of drop-down menus across the top for ease of finding various researcher resources and information.

The research data summary and signature sheet link is on <http://www.queensu.ca/vpr/process/approvalprocess.html>. This is on the Approval Process & Forms page which can be found under the Funding Process menu.

Please note that some of the links from your site to Researchers' web pages may need to be updated.

Please email me [williams@post.queensu.ca](mailto:williams@post.queensu.ca) if you notice anything that needs correcting or updating on the Office of Research Services pages. Please also feel free to email me with any comments on the new website.

Thanks, Kathleen

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**N**ews from  
 the PITS 

**(Pathology Information  
 Technology Services)**

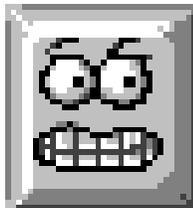
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### LISImage updates:

A new feature on the lisimage server has provided unexpected benefits.

#### One Page Case

First the new feature is the ability to display an entire case of images on one web page. This means for instance, instead of showing the whole case by clicking on the first image, then back, then the next, then back, then forgetting where you were, then starting over again :) you can now just scroll up and down the page to see 800x600 resolution images. When you leave the mouse on top of the image, a popup tip will show you the filename. When you click on the image, it will display fullsize.



The unexpected benefit of this was discovered accidentally and only works with newer web browsers (netscape 7+ and Internet explorer 6+). In the past if you tried to save a web page it would only save the "text" and not the images.

You would have to click on each image in turn and save it. A very tedious process. What we have discovered now, in the new web browsers, is that you can save the entire page \*AND\* all of the images on that page with one command.

Pretty cool! You can now easily download all of the images from a single case onto your local workstation without needing the expert help from Lloyd.

If you do \*not\* have netscape v7 on your system, contact Kevin for same-day upgrades, otherwise it will happen during normal maintenance visits to your workstation sometime over the next few weeks.

**Copyright:** We are investigating the possibility of putting a copyright logo onto each of the images on our LISimage web server, in part to try and protect the property from misuse without proper credit.

Be sure to note that we will always have full resolution originals of all of these images \*without\* the logo, for publishing use.

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### Squirrelmail updates

Squirrelmail is our webmail based system giving people access to mail on [cliff.path.queensu.ca](mailto:cliff.path.queensu.ca) and [clinlabs.path.queensu.ca](mailto:clinlabs.path.queensu.ca) using a web browser from anywhere in the world. It was updated on Tuesday April 15<sup>th</sup> from version 1.2.10 to 1.4.0

### Richlab1 Backup Change

In the past, we used to backup our main data drive (mapped Drives F:, G: and I:) daily. These three "drives" are actually just different parts of one physical 40Gb drive and recently (2003 January) the combined total space used went over 50% (or 20Gb).

This introduced a problem in that the tape backup drive used to make daily backups can only do 20Gb. Pleas for folks to try and clean out their email (totalling about 7 Gb on the

system) met with little success. A new system had to be developed and this is what we've come up with:

**Daily (Tuesday-Saturday) at 03:30** all new or changed files are copied to a 2<sup>nd</sup> physical hard drive on Richlab1. This usually takes about 2 hours, depending on how many new or changed files there are. Note that if you delete a file on f:, g:, or i: after it has been copied to the backup drive, it will remain on the backup drive for the foreseeable future. At some point in time the accumulation would fill up the backup drive, so every 6 months (March 22 and September 23 - equinoxes) I delete the entire backup drive contents and start over.

**Monthly (1<sup>st</sup> day of the month) at 00:01** all of the data files are copied to a 2<sup>nd</sup> physical server and it's 40gb hard drive capacity. Again this will fill up with copies of deleted files from the data on Richlab1, so every 6 months (December 22 and June 21 - solstices) I delete the entire backup drive contents and start over.

#### **Richlab1 DATA**

1. Copied daily to a 2<sup>nd</sup> drive on Richlab1
2. Copied monthly to a 2<sup>nd</sup> server

This gives us disaster recovery in terms of:

Disaster#1. if the main data drive dies, we replace it and copy back up to one day old backups (we would lose anything new since the last backup).

Disaster #2. If Richlab1 goes up in flames (both data and backup drives) we would have to replace it and copy back the 2<sup>nd</sup> server backup (up to 1 month old data).

It would be nice to have another layer of intermediate data backup in between these two layers, but the odds of Disaster#2 happening are pretty low.

So what we have is a system to protect against server disaster, and not so much of a system

designed to protect against people deleting important files and not getting them back.

So remember, it takes ONE BUSINESS DAY for any new or changed data to be backed up.

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### **Queen's/KGH Network Changes coming in Mid-May**

Queen's ITS and KGH ITS have gotten together and will be making changes to the networking between the two institutions.

This will benefit us in a number of ways:

- we should continue with the same services we have now (LIS, PCS, Shire, dictation, SAP, etc)
- we should get access to the KGH intranet web server at \kgh\
- users inside Kgh should be able to see our network services (like our web server)
- more news to come.

#### **March 2003 Email Stats:**

35905 pieces of email in and out