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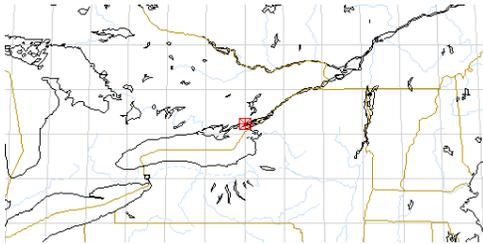
# Pathology News

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Vol. 9#04

April 2002

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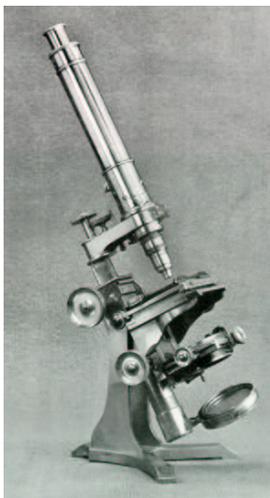
## Publishing Info

**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@cliff.path.queensu.ca> Newsletter, Dept of Pathology, Richardson  
Labs, Queen's University, Kingston Ont K7L 3N6  
or FAX to 613-533-2907  
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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!

## **F**or Your Info

### **Some Energy Conservation tips from Queen's University**

- turn off the lights in your office or lab when you go out for more than 5-10 minutes (obviously only do this if it does not affect others!)

- the average elevator uses 15kw during its travel (daily?) When possible, take the stairs rather than the elevator when going up one floor or down two. (Again, obviously you won't do this if carrying or pushing loads around!). It saves power and gives you some good exercise!

- when possible, do not leave water running from lab, darkroom, washroom or lunch room taps.

Queen's is facing 3-4% budget cuts in each of the next few years and would appreciate all the help possible!

### **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 Iain Young, 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 2002-2003 and should be submitted to my office by **April 15<sup>th</sup>**.

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

*P.N. Manley, MD*

We are sorry to lose **Karen Gray** from her position with the Pathology Department and hope she enjoys her new duties April 10<sup>th</sup> as Medical Secretary for the Regional Stroke Prevention Program.

## D r. Dexter's Corner

### NOTED FROM A PREVIOUS CENTURY

#### THE CONTRIBUTIONS OF TWO NOBEL LAUREATES



A recent case of lymphoma in the oropharynx made me think of Waldeyer's Ring, a term not too commonly banded about in daily conversation. Who was Waldeyer, and what did he do to be eponymically remembered?? At least we know *where* Waldo is (a second cousin twice removed? Ed. Note). A brief search took one to Italy, the land of art, paintings, pasta and excellent wine. Waldo had left some time earlier! The trail began with Camillo Golgi who was born on July 7, 1844. It is noteworthy that his discoveries in science were such that the town of his birth, Corteno, was renamed Corteno-Golgi. He lived and contributed to a time of major discoveries of many of the fundamentals of modern physiology and pathology. He worked closely with Giulio Bizzozero, the discoverer of the platelet, but he began to turn to his studies of the nervous system, stimulated in part, by Rudolf Virchow's work.

Financial woes (the counterpart to rejections of grant applications) led to the creation of a rudimentary laboratory in his kitchen working mainly at night under candlelight. There is no record as to how this usurping of space was received by the remainder of the household. Here in such humble surroundings, he discovered and developed "la reazine nera" in 1873 - a silver chromate staining process for neural tissues.

In 1875, Golgi published an article on the Olfactory bulbs and it was in Golgi's laboratory, (not the kitchen, for his fortunes had by this time improved), that Adelchi Negri described the viral body inclusions of rabies.

The collaboration of Wilhelm His, Heinrich Wilhelm Gottfried von Waldeyer-Hartz, and Fridtjof Nansen has been generally accredited as originators of the neuron theory of the nervous system. Nansen's doctoral thesis was entitled, "The Structure and Combination of Histological Elements of the Central Nervous System", 1877.



**Figure 4.** Golgi

The "apparatus" for which Golgi is known was described in 1886, although he was not the first to recognize it. Nearly 20 years previously, Adolf Freihe Van La Valette St. George had identified similar structures in the sexual cells of a snail.

In the latter decades of the century, he worked on malaria describing the distinguishing features between tertian and quartan malaria, recognizing as we do today the need for quantifying the peripheral blood parasitaemia as it correlated with attack severity.

The seminal work of Ramon y Cajal was facilitated by the discoveries and staining applications developed by Golgi. In his later years, Golgi became Dean of Medicine at Pavia retiring in 1918 and dying in 1926.

Golgi's contributions were to open methods of research of the nervous system in a dramatic fashion and for this he shared the Nobel prize with Ramon y Cajal.

\*\*\*\*\*

Born in 1861, Fridtjof Nansen studied zoology at the University of Oslo. A star pupil, he was sent to capture samples of marine life in the Arctic, and thus began a lifelong linkage with polar exploration. He moved to Bergen to continue his studies. Here he met Armaur Hansen of leprosy fame, and was influenced by the new-fangled theories of evolution put forward by Darwin. Continued travel to meet and work with the leading scientists of the day, resulted in his doctoral thesis on the structure of the nervous system. Here was the linkage with His, Golgi, Cajal and Waldeyer-Hartz.



Figure 3 Nansen and the Fram

Coming from Norway where snow and ice predominates the climate, Nansen was a keen and capable skier, and he trekked across Greenland and undertook expeditions to the North Pole, but missed beating Perry in 1909 and Amundsen in 1911 in reaching both the North and South Poles.

If brilliance in science and bravery in exploration were not enough, Nansen devoted considerable energies to peace, and he focussed on the quarter of a million prisoners of war held in Russia from the first world war. Germans held nearly 200,000 Russians and an exchange process was vital. Nansen was appointed High Commissioner in charge by the League of Nations. Nansen Aid provided food, clothes, and medicine. That the prisoners had little belongings was expected, but their loss of identity papers and documents required an inspired and innovative approach. Sponsored by the Red Cross, a special passport - the Nansen Passport - was created, allowing refugees an opportunity to escape to a new life. For this, Nansen was nominated for and received the Nobel prize for peace in 1922.



He was planning an Airship flight across the Arctic when he died of a myocardial infarct in May 1930 at the age of 69.

\*\*\*\*\*

It may, dear reader, seem a bit of a stretch. These small vignettes are intended to serve as inspirations to those at the start of their careers and as encouragement for those in harness to seize opportunity as it comes. Candle-lit kitchen laboratories are hardly de rigeur today. Indeed, Ontario Laboratory Accreditation would frown and act expeditiously to close them down. Queen's Safety Committees and Laboratory Safety chaps would swiftly act and reassign the space to a better funded researcher who abided by the rules. However, it is from such humble beginnings that a great scientist budded and blossomed.



Fig 4 Nansen in his Lab

From the example of Nansen, one might argue that he was not a full-fledged pathologist, but he was a Laboratory Scientist with a brilliant mind, a fastidious technique, and a major contributor to the understanding of that most complex of systems, the human brain. He actually started his CNS studies in the Hagfish believing that there would be much that was similar to the human. (This potential confusion may explain a lot as I am certain that some individuals have, in fact, been issued with the wrong species - Ed note).

We may not achieve a fraction of Nansen's polymath mind or of his extreme adventures. So, like many, we aspire to small things, crumbs from the High Table, pieces of the jigsaw puzzle, that in some way they may develop into something larger, even spectacular.

Studying Hagfish is definitely out. Silver stains have been done. Peace is virtually impossible on a global scale. So what is left? Cross country skiing.

All we need are enough sets for the whole department. No klister days by mutual agreement. Yes, we could be like Nansen striding off across the rugby field with a Telemark or two on the hospital hill. Now, if we only had snow - we could be like Nansen!

**Post script:**

If Heinrich von Waldeyer-Harz married Adolf's sister Adolphina Van La Valette St George, and she, being a modern woman indulged in hyphenation, could she be admitted to KGH? Surely the resultant Waldeyer-Harz-Van La Valette St George would send the PCS, the LIS and the Addressograph system into a right tizzy.

David F. Dexter, MD

**NOTE: From the AFIP (February 2002)**

***Non Tumour Pathology Series, Endocrine Disease***

Pathologists who ordered this book and added the series to their subscription, please be advised that the business reply cards were routed through the Brentwood postal facility in Washington, D.C. They were then taken to Ohio for radiation treatment to assure they were free of anthrax .....

Some delays might be anticipated!

**“Survey says.....”or “ if you want my opinion!”**

Surveys are the modus operandi of modern life. Someone is always doing one. Even news programmes such as Global and CNN use them as trigger points for controversy. Mind you the statistics sound peculiar and when pronounced with solemnity, seem incomprehensible and not easily applicable to each of our daily lives.

“This survey was conducted by a telephone pole (?poll, Ed) of a thousand people in the Osh Kosh By Gosh on February 29, 2000 two hours after the event and is correct to within 3 percentage points 19 times out of 20.” Osh Kosh is a quiet hamlet of three hundred folks so remote from the mainstream that

cable does not reach and the main entertainment is kicking the Juke box in Bill Smith's Tavern - come - general store. But is sounded so authoritarian it must be true.

Opinion polls have had a terrible effect on the population as a whole. They have empowered the so-called man-on-the-street (not equivalent to the non-sexist street-people) to hold an opinion. The topic does not matter. It has become a right, God-given, or conferred by the media. The opinion itself may be far beyond the ken of its professor but its value, and this is what hits hard, is equivalent or supercedes the experts in the field. The media delights in this and uses such sound bites sprinkled throughout newscasts for they are the masters of selection of impact and impression. So do individuals or people polls flavour our awareness of what's happening.

Based on a recent Canadian\* survey we should be implementing a security alert hospital-wide. At least 1 in 10 Canadians have lashed out at the office/departmental photocopier. (In New York City the figure is closer to 10 of 10, Ed. note). The cause is a fit of frustrated rage. A further 30% of office workers admitted (under intense questioning) to "seriously wanting to kick or hit" their copier but showed commendable restraint when facing jammed paper trays or out-of-service warnings.

Photocopier rage is an issue for millions of Canadians. More than 5 million have fought back the urge to kick or hit their photocopier but at least two million have actually struck their machine. Breakdown of the perverted perpetrators showed the worst offenders to be university graduates (50%). Women were the worst with 48% reporting violent urges compared to 37% of men. Albertans were worst at 51% and Quebecers most tolerant at 37%.

Rage is clearly an "in"-thing. Road rage, air rage and now photocopier rage. Forthwith each of the department photocopiers will be monitored by video cameras 24 hours a day and guarded by a 6ft 4 inch 280 lb ex-college football fullback. (Use of a college graduate may not be advisable. See above! Ed. Note). Security fences, photo or fingerprint ID and anger-suppressions courses are natural and necessary outcomes for what would-be users.

\*a much less controversial poll than American based data, for most people would be in agreement with both sides and it was hard to derive a divergent opinion

Such surveys serve to raise the profile of issues one was not particularly worried about. The downside, as a department, will be our reduced capacity to duplicate or copy workers to keep generating ever-higher numbers of units per hour.

Potential future surveys on whether surveys serve a useful purpose would provide useful survey data to surveyors to justify further surveys (accuracy within 15 percentage points 17 times out of 20, etc, etc).

Stimulated by a recent article in the National Post "Modern victims of office violence: photocopiers".

**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>

If you spot a grant of interest, please print out **ONLY THAT PAGE** and not the entire document! Sometimes this file runs into 25 pages!

### Recent Publications

Remember that a complete (or as complete as Kevin can make it) list of publications from 1995-2000 is available online at <http://www.path.queensu.ca/queens/pubs.htm.htm>

### Congratulations to

Lois Mulligan on being promoted to Professor in the Departments of Pathology and Pediatrics effective 2002 July 01.

### Publications

Indirect Measurement of Bioavailable Testosterone with the Bayer Immuno 1 System. Rachael Davies, **Christine Collier**, **Michael Raymond**, Jeremy Heaton and Albert Clark. *Clinical Chemistry* 48(2):388-390, 2002.

Caspase-3 Activation and Caspase-Like Proteolytic Activity in Human Perinatal Hypoxic-Ischemic Brain Injury. **J.P. Rossiter**, L.I. Anderson, F. Yang, G.M. Cole. *Acta Neuropathol* 103:66-73, 2002.

Affinity Binding of Glycosaminoglycans with B2-Microglobulin. Kenichi Ohashi, **Robert Kisilevsky**, Masaki Yanagishita. *Nephron* 90:158-168, 2002.

New Mental Retardation Syndrome Associated with Ocular Colobomas, Cleft Palate, and Genital, Skeletal and Craniofacial Abnormalities. **M.M. Khalifa**, S. Cappon, S. Soboleski and D. Armstrong. *American Journal of Medical Genetics* 107:237-242, 2002.

**R**ichardson Research  
Seminars  
Department of Pathology  
Seminar Schedule 2001 - 2002  
Tuesdays @ 4:00 p.m.

Richardson Amphitheater, Richardson Laboratory

|          |                |
|----------|----------------|
| April 16 | Kevin Weigl    |
| April 23 | Dr. Mes-Masson |

### Summer Student

My name is Amy Neumann and I am currently in my third year at the University of Toronto completing a Forensic Biology double major and Honors BSc. I am a graduate of K.C.V.I. high school and have lived in Kingston for more than 9 years.

At the end of my third year I would like to return home for the summer of 2002 and gain some laboratory experience. I am very interested in being able to participate in ongoing research or projects you may have.

As a third year biology student, I have been familiarized with many lab procedures including sterile techniques, lab culturing and plating and bacterial diagnostic tests and stains. An additional lab course in genetics and molecular biology included performing PCR, gel electrophoresis, DNA fingerprinting, as well as deducing linkage of four *Drosophila* genes after crossing flies up to an F2 generation. Also, I am currently in the midst of completing a full-year Human Osteology course.

My Professors often refer to their research, the techniques they used, and the conclusions they drew. I enjoy listening to them, and now I would like firsthand knowledge of how research and experiments are conducted, and the reasoning that goes into them.

If you are accepting undergraduates, please consider me this summer. I am a responsible and hard working student who wants to learn. I can be reached at amyliane@canada.com or at 905-820-3164. I would be more than happy to meet with you, at your convenience.

Amy Neumann

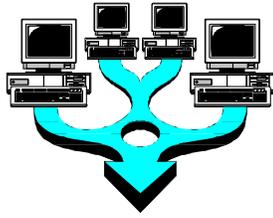
If you would like to see a copy of Amy's CV please see Barb in Dr. Manley's office.

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Automobile for Sale \$3500

1993 Ford Taurus Good Condition 172,000 km  
Call John @ Q-74903 or 542-3819 after 6:00pm

# N

etwork  
News




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## Background on Graphics Editing

In general we create **bitmap images** on slidescanners, flatbedscanners, digital cameras, and microscope cameras in **.bmp or .tif** formats. Both of these formats are generic “bitmap” images, which means they are very large in size and do not “lose” information when you save them.

Typically they are only used for quantitative digital image analysis. For every other purpose we convert these LARGE .bmps or .tifs into **high quality .jpps**. JPEG is a “lossy” storage format, where information does get thrown away while the file size goes down by a factor of 10 or 20. Lossy is a relative term however.

Smaller file size enables you to store, transfer, backup or email the image in question much easier.

So, we have a large pixel count image (typically 2000x2000 pixels or better). What do we do with it? Keep it as an original and make copies for other purposes.

One typical example is to put the image into a MS Office Powerpoint slide show. Since our default monitor resolution and the default data projector resolution is 800x600, using a 2000x2000 image in a powerpoint presentation is a waste of disk space and overkill. So what we do is to copy the original and then resize it down to 800x600 and import that image into the slide show.

We have a limited number of licences for a graphics editing program called ACDC that faculty members already have installed.

If you do not have this program there are alternatives. Many people have their own licenced copies of adobe photoshop.

A free alternative is a program called Graphics Image and Manipulation Program (The GIMP) which is installed on 4 of the library workstations (not the ones with the flatbed scanners... they came with their own version of adobe photoshop).

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## Email Traffic: (number of pieces in and out)

March 1995: ?  
 March 1996: 3532  
 March 1997: 4566  
 March 1998: ?  
 March 1999: 14069  
 March 2000: 21038  
 March 2001: 25474  
 March 2002: 46344 (about 1500/day)

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.

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## MS Outlook Tips

### 1. Publishing your free/busy calendar to the network system.

Normally MS outlook “publishes” or makes available to other users on the system, only 2 months in advance. We would actually like a full 12 months so people can make future appointments past the 2 month limit. Unfortunately, this has to be changed on each individuals Outlook Tools, Options, while they are logged on as themselves.

So I am requesting that you take the time to go:  
 Tools  
 Options  
 Calendar Options  
 Free/Busy Options  
 Publish 12 months

## 2. Autoarchiving of old information

Normally, every week, MS outlook will go through your calendar and remove items older than 'x' months and store them into a local file. Many people have commented that items are deleted too soon. To change this to say, 12 months do the following:

right click on the calendar icon in the left side shortcut column and select  
properties  
autoarchive  
clean out items older than x months  
change this to say 12 months

You will also see the local file that these items are stored in: usually  
c:\winnt\profiles\yourname\personal\archive.pst

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## Richardson Labs Rewiring Project

This is a short note to let you know that the building rewiring project is scheduled to go ahead this summer and take about 6 weeks from start to finish. Our building is competing with 10 others and the actual start of the work will be sometime between mid May and mid September.

The rewiring project involves installing a parallel wiring system with higher quality telephone and computer network cabling.

The intent as it stands now is to install duplicate wall jacks in the same vicinity as the existing ones, and add in all-new wall jacks in many research lab locations.

After the project is complete, sometime in the next year, we will make the switchover, both telephone and computer network cables will be switched from one set of wall jacks to the new set, along with new computer network cables (as the end plugs have changed).

We hope to get new wall jacks in the "back" of the Rich102 and Rich107 conference rooms, and

if possible, wall jacks on every bench in Rich301, Rich401, Rich501. But this will all be subject to financial approval by the rewiring project...

Another capability improvement will be the elimination of the rich4 communication closet link to the rich2 closet. We are currently limited to 25 total network connections from Rich3-5 and we have been at that point for some time now. With the switch to the new wiring system in the fall, we will be able to add more connections to that total.



## LISImage

| Date         | #cases | #photos | Total Gb |
|--------------|--------|---------|----------|
| 2002 Apr 09  | 2138   | 8946    | 19%      |
| 2002 Mar 07  | 2064   | 8607    | 17%      |
| 2002 Feb 04  | 1984   | 8197    | 9.1      |
| 2002 Jan 02  | 1886   | 7706    | 7.4      |
| 2001 Dec 03  | 1853   | 7511    | 7.0      |
| 2001 Nov 08  | 1743   | 6765    | 6.0      |
| 2001 Oct 04  | 1632   | 6342    | 5.1      |
| 2001 Sept 12 | 1529   | 5988    | 4.5      |

You can read more about the LISImage system at

<http://www.path.queensu.ca/queens/lisimage.htm>



**Figure 10** - Crowd gathering to see a 350 years old (dog years) on his birthday.