# Pathology News

#### Vol. 9#06



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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! or Your Info

Milestones

Including their service at HDH, Kitbia Kassim reached her 10th anniversary in the Pathology Department and Joanne McAllister reached her 20th anniversary. Congratulations and thanks to both for their long and valued service.

By Dave More

10 Years - Julie Clark, Cancer Research Labs

#### Reminder: Queen's Pathology Reunion II -September 21, 22, 2002

Please join me in welcoming our two summer students, Mr. Kevin Varley and Ms. Iris Teo, who will be working in the Anatomical Pathology service for the summer. Kevin and Iris joined us May 27<sup>th</sup> and June 3<sup>rd</sup>, respectively.

By David Dexter

#### **Congratulations to**

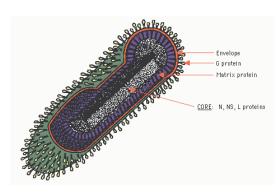
Sandip and Samina SenGupta on the birth of their daughter, Serena. Serena weighed in at a whopping 8 lbs 14 oz. A "little" sister for Neil.

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# r. Dexter's Corner <u>BATS, BITES, AND RABIES</u>

#### In the March/April issue of the Canadian Journal of Infectious Diseases (Volume



13:129-133), is a paper entitled, "Diagnosis and Analysis of a Recent Case of Human Rabies in Canada." Briefly, the patient, a nine year old boy, was admitted to a Montreal Hospital on September 27<sup>th</sup> and died 14 days after presentation. The story was familiar. He had been vacationing in Western Quebec with his parents in the Laurentians in August. He was believed to have been exposed to a rabid bat on or about August 28, 2000.

In 1970, while I was on my neurology rotation as a Junior Undergraduate Rotating Student Intern (JURSI) at University Hospital in Saskatoon (now called the "Royal"), I had

two interesting patients both with initially similar signs of ascending paralysis. One was Guillain-Barré syndrome, but the other was a puzzle. He was a young, red-haired teenager. We struggled to keep him going, but gradually he lost his respiratory muscles and had to be intubated. He died shortly after. Diagnosis, as I recall, was based on findings in injected mice and from the neuropathology findings. Several of the nursing staff, particularly in the ICU required vaccination, not a pleasant process as there was the possibility of sensitization to duck protein and a post vaccination encephalomyelitis, though none occurred.

Rabies is rare and may not come to mind easily. Most people associate risks with rabid dogs, skunks, foxes, raccoons, and other such animals. Contact with, and bites from, are usually obvious and remembered, and the clinical suspicion correspondingly high. Both the Quebec and Saskatchewan cases were as a result of bat bites.

Of interest, this was the first case of rabies in 36 years in Quebec. The last case in Canada was 15 years ago. Only 4 cases have been identified since 1970, 3 from bat bites, and I wonder if the case in Saskatoon was in that group. Worldwide, approximately 50,000 cases occur and die annually according to WHO.

Rabies is an 'ancient' disease, first demonstrated to be of infectious origin in 1808, and shown to be of viral etiology by Pasteur in the 1880's (when Pasteur and Koch were developing the germ theory of disease - prior to the firm modern definition of 'viruses' by Beijerinick (1898)). Over a decade, Pasteur carried out the serial passage of Rabies virus in rabbits, and eventually succeeded in isolating an attenuated preparation which was used to treat patients bitten by mad dogs which was not without some risks.

There is no effective drug treatment, but passive immunization is of value. This is one of the cases where therapeutic (post-exposure) vaccination is important - the aim is not to prevent infection but to moderate the severity of the disease. 3 types of vaccine exist:

• **Inactivated** - as pioneered by Pasteur in the 1880's - used until the 1950's (material from infected animals containing up to 5% nervous tissue - provoked severe immune reactions in recipients, but saved lives). This type of vaccine was then produced by growing the virus in embryonated duck eggs - better, but still produced severe encephalitis in some recipients. Inactivated vaccine is now produced

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by growing the virus in diploid human fibroblasts - effective and safe but expensive, therefore duck egg-produced materials still used in third world.

- Live attenuated has been used to vaccinate domestic animals and livestock. Effective, but not considered sufficiently safe for human use.
- Recombinant recently developed recombinant vaccinia virus / G protein vaccine is being used to • eradicate rabies in foxes in Europe (Brochier et al, Nature 354: 520 (1991).

In Canada, rabies is a reportable disease under Federal Jurisdiction. All diagnoses of rabies are made/confirmed by the staff of the Canadian Food Inspection Agency's Centre of Expertise for Rabies at the Animal Disease Research Institutes located in Ottawa, Ontario, and Lethbridge, Alberta.

In animals, a Direct Immunofluorescent microscopic test on fresh brain tissue is commonly used. In humans, intravitam tests on biopsy specimens, body fluids which may include saliva, CSF, and serum are only done in Ottawa. Skin biopsies, corneal impressions, and eye secretions can also be tested. Not all samples will be positive, so more are better.

Not only can the diagnosis be made quickly, but the virus strain can be identified. In the Quebec case, the strain was from Lasionycteris noctivagans, or the Silver-haired bat. At Negri body autopsy, extensive Negri bodies were seen in the hippocampus, thalamus, and brain stem with evidence of inflammation of the dorsal root ganglia and of the autonomic ganglionic ramifications to the heart gut and adrenal.



One might question the wisdom for establishment and support of a government rabies department entitled, "The Centre of Expertise for Rabies" in the face of so few human cases,

but rabies is endemic to many species of animals in North America, and oral vaccines impregnated in bait serve

to reduce the incidence in wild animals. An important message is to beware the bat, for the scratch or bite may not be noticed! In 1996, the National Association of State Public Health Veterinarians of the United States recommended that "since rabies is endemic in bats, bats should be excluded from houses and surrounding structures to prevent direct association with humans."



Strangely enough, it was not the first reference to ridding habitations of bats. In the late 1700s Buffon observed that "bats may be easily caught, by a few cheese parings, or candle ends. They are so rapacious, that if they ever get into the Granary, they never cease devouring, while there is anything left." James Gillray published a fanciful aquatint print entitled "Bat Catching" in 1803.

For those softer-hearted who feel the recommendation to move bats away from houses is too harsh a restriction on one of the few flying mammals, I do not support or sympathize with them. I

never want to see another case of rabies in a patient. There is nothing you can do!

*Ref*: Can J Infect Dis 13:121-125, 2002 David F. Dexter, MD

Can J Infect Dis 13:129-133, 2002

## lumni Corner

Dr. Hilda Tremblett, who was a resident in the Department in the early sixties, wrote an interesting report on her activities since leaving here.

"I moved to North Sydney in 1964 as General Pathologist at St. Elizabeth Hospital. This was later bought by the N.S. Gov't and merged with the hospital in Sydney Mines to become the Northside General Hospital. I was also responsible for the lab at the Baddick and Neils Harbor hospitals. My main hobbies were sailing in the summer (yes, I earned my Captain's ticket - for a small boat), snowmobiling in the winter. Now I own a campground at Lake Ainslie. I have travelled extensively including 2 trips to China in 1986 and 1988. In 1996 I had the pleasure of being a passenger on a tall ship (the Star Flyer) crossing the Atlantic from St. Maarten to Malaga, Spain. A year later I spent 5 wonderful weeks on the same ship from Thailand to Athens, with 9 stops on the way. Another memorable trip was an 8-day canoe trip in the Bowron Lake Provincial Park (BC). (Didn't meet any grizzlies, but it was in their territory and one year later a camper was badly mauled in that area). The east Coast Voyage of Discover was also quite remarkable. It went from Baffin Island to St. Pierre with stops in Labrador, Nfld., Magdalen Islands and Cape Breton. The most exciting part of that trip was just missing (by about 3 minutes) a foundering cathedral-sized iceberg in Labrador. Now I am just about ready to go on my next trip - to Iceland, across the Denmark Strait to Greenland, down the cost of Greenland, then Labrador, then around Nfld. This is on a relatively small Russian expeditionary vessel, the Professor Multinovsky (48 passengers).

I could go on and on but I won't. I retired early in 1991 and am thoroughly enjoying my freedom, especially to travel. By the way, in late April I was in Kingston for a day and met with Ellen vanderHoeven and Mona Mulligan. Great to see them.

Best wishes to anyone who remembers me.

Hilda Tremblett"

September, 2001

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.gueensu.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

## ichardson Research Seminars Department of Pathology

Seminar Schedule 2001 - 2002 Tuesdays @ 4:00 p.m. Richardson Amphitheater,

Richardson Laboratory

Cancelled for Summer

#### obs Wanted

#### **Seeking Summer Volunteer Position**

Mr. Christopher Gould is seeking a "volunteer position with a progressive research lab to challenge abilities, while simultaneously developing new skills to assist in future endeavour". He has recently been researching the local biological industry. He has laboratory skills in: basic molecular biological techniques: isolation and quantification of plasmid DNA; basic analytical chemistry reaction, separation and purification techniques; quality control laboratory testing techniques and procedures; preparation of specimens for light microscopy; lab equipment usage: gel electrophoresis; spectrophotometer, haemocytometer, etc.; calculate molarities, prepare solutions and dilutions; preparation of culture media. If you are interested in having him work in your lab and would like a copy of his CV please see Barb in Dr. Manley's office.

obs Offered

Laboratory Scientist I Molecular Diagnostic Laboratory

Winnipeg Regional Health Authority

With the establishment of the Aboriginal Human Resources Initiative and through forging a partnership with the Aboriginal community, the Winnipeg Regional Health Authority is committed to increasing the representation of Aboriginal people at all levels within our workforce. For further information regarding the Aboriginal Human Resources Initiative, contact Ms. Katherine Morrisseau-Sinclair, Regional Director, Aboriginal Human Resources Initiative. Aboriginal people are encouraged to apply.

The Molecular Diagnostic Laboratory, Department of Clinical Chemistry, Winnipeg Regional Health Authority invites applications for the position of Laboratory Scientist I. This position is sited at the Health Sciences Centre. Under the direction of the Molecular Geneticist, the incumbent is responsible for developing and establishing new and modified molecular diagnostic tests. In addition, the incumbent will provide professional guidance in matters regarding human molecular genetics to the Laboratory and to the clinical staff of the Winnipeg Regional Health Authority.

#### Qualifications:

M.Sc. Degree in Medical Genetics or a related field required.

minimum 3 years of recent related experience in molecular techniques with demonstrated expertise in research and development. An equivalent combination of education and experience may be considered.

knowledge and/or experience in clinical genetics and desktop applications and internet search tools are an asset.

#### Salary:

Salary and benefit package is competitive and dependent on experience and qualification.

Interested applicants should apply in writing, including curriculum vitae and a list of three references.

Submit applications to:

Pam Trupish WRHA Physician Recruitment Coordinator 1800 - 155 Carlton Street Winnipeg, MB R3C 4Y1

For further information about this position, please contact Dr. Beth Spriggs at <u>bspriggs@hsc.mb.ca</u>

Aboriginal applicants are encouraged to voluntarily self identify as being of Aboriginal descent by completing a self declaration form available at the WRHA Recruitment Centre or through the Aboriginal Human Resources Initiative.

Queen's University Libraries - News Releases (Monday, 27 May 2002)

http://library.queensu.ca/libdocs/news/2002may27.htm

Web of Science Coverage Now Back to 1990; plus, Broad Range of Other New Online

Resources Acquired this Term

Queen's Libraries is pleased to announce the purchase of an additional five years of backfiles for the Web of Science (WOS) database. This now gives Queen's researchers convenient, cumulative, online access -- via the web -- to twelve years of ISI article citation data.

Web of Science is the product name for the online version of Science Citation Index Expanded, Social Sciences Citation Index, and Arts & Humanities Citation Index. For more information about WOS, as well as a link to the database, see:

http://library.queensu.ca/libguides/cnslp/wos.htm

Additional New Electronic Resources Acquired to Date in 2002:

The Libraries' shift to the digital environment accelerated this past term with a wide range of exciting new acquisitions of interest to many different disciplines. Some examples of these new subscriptions include:

\* Full-text access to CURRENT journals (e.g. the APA's PsycARTICLES ; all the Nature Monthlies and Reviews ; the 28 British Medical Association journals ; all 747 Kluwer journals)

\* Online access to electronic facsimiles (including illustrations) of PAST publications (e.g. Toronto Star -- Pages of the Past ; Godey's Lady's Book, 1830-1880)

\* Campus-wide web access to publications formerly available only on CD-ROM in Stauffer Library (e.g. English Short Title Catalogue (ESTC) 1473-1800; major Quebec Frenchlanguage newspapers formerly issued on CD as Actualité Québec and now online, current to today's paper, under the product name Virtual News Library)

These are examples only: the full list of new electronic acquisitions is much longer and even more varied! Go to the Libraries' New Databases website for complete details and links to all these new research resources: http://library.queensu.ca/libdocs/news/databases.htm

For more information, contact: Dianne Cook Collection Development Coordinator Email: <u>cookdc@post.queensu.ca</u> Phone: (613) 533-3040

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etwork News	support the US	ers, scanners, etc. NT4 does not SB port at all. fic: (number of pieces in and	
	out) May 1995: unl May 1996: 34	known 195	
Handman Unanadas	May 1997: un	known	

#### **Hardware Upgrades**

Late May/early June saw some more hardware upgrades in the Department.

#### Library:

All six pathology library workstations were upgraded in the first week of June to pentium2 class 500MHz machines.

#### **File Servers:**

Richlab2 (Outlook Calendar System), CDServer1, LISImage, Labpolicy, Winpass

#### **Presentations:**

Present1 (Rich Conference Room) and Present2 (Autopsy Conference Room) were both upgraded.

#### Workstations:

Nine workstations were upgraded.

## History of Computer Speed (averages across all CPU's on our network)

2001 March: average 468 MHz CPU speed 2002 February: average 645 MHz CPU speed 2002 June: average 844 MHz CPU speed

We are doing quite well compared to other Queen's departments and to KGH in general.

The next big upgrade will be the switch from MS Windows NT4 operating system to MS Windows NT2000 Pro, over the next few months. This is mainly due to Microsoft discontinuing support for the old operating system (which we have been using for about 5-6 years), the hospital switching over to it and the fact that we need USB port support more and more for various peripherals such as digital May 1995: unknown May 1996: 3495 May 1997: unknown May 1998: unknown May 1999: 10220 May 2000: 19216 May 2001: 26962 May 2002: 30523

#### **Richardson Labs Rewiring Project**

Preliminary work moves ahead and areas needing new wall jacks have been identified. Construction to create a larger communication closet in Rich201 will take place in the week of June 17-21 and the wiring crews will be in shortly after that.

Yellow stickers were placed on walls in the location of the new wall jacks last week (June 3-7). If you see one DO NOT REMOVE IT! They are needed to help the crews get the job done faster. Our building should be done in a few weeks.

#### LISImage

Date #	cases #	#photos	Total	Gb	
		======			
2002 June 14	2284	9913	23%		
2002 May 07	2224	9454	21%		
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 Sept 12	1529	5988	4.5		
You can read more about the LISImage system					
at					
1 //		,	/1 • •		

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