

Bringing Research to LIFE

In brief

Update on CORE and CHRPP

For Researchers and Research Coordinators

The Interagency Advisory Panel on Research Ethics (PRE) has now launched the online tutorial, TCPS 2: Course on Research Ethics (CORE).

For all researchers submitting an ethics protocol, the deadline to complete the CHRPP or CORE tutorial remains September 1, 2011. Those who have already completed the CHRPP tutorial will NOT be asked to complete the CORE tutorial.

For further information, please feel free to contact the Research Quality Management Office (Rm 053, Apotex Bldg., Bannatyne Campus):

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The Animal Care and Use: Orientation for New Faculty

This workshop will be beneficial to recently hired, senior animal research personnel such as faculty members, post docs, research associates and senior technical personnel who will be applying for funding, holding or writing animal care protocols and/or managing research projects utilizing animals.

Topics will include: policies as they relate to animal use, animal care protocol submission, education and training requirements, facility requirements and veterinary services.

Meet the University of Manitoba's animal care personnel, and let us help you save valuable time in future research projects.

Thursday September 1, 2011
12:00-1:00pm
Room 211, Medical Services Bldg.
Bannatyne Campus

Friday September 2, 2011
12:00-1:00pm
Room 210, Helen Glass Building
Fort Garry Campus

Working to save our skin

BY JOHN RYMON



Photo by Mike Latschislaw

Dermatopathologist Darryl Oble's lab is validating new technology shown to improve clinical diagnoses and lead to better patient care.

Did you remember to wear sunscreen today? Enjoying a sunny day without proper sun protection can result in more than just a sunburn. Skin cancer is now the most common cancer in the country, according to the Canadian Cancer Society. Over 5,000 new cases are being diagnosed in Canada each year, resulting in more than 900 deaths. Even moderate sun exposure without proper protection has been shown to increase a person's risk, and so has a severe sunburn, using indoor tanning beds, or repeated exposure to x-rays or radium.

Darryl Oble is no stranger to diagnosing skin problems. An assistant professor in the pathology department in the Faculty of Medicine, and a dermatopathologist at the Health Sciences Centre, his clinical practice is focused on all aspects of skin disease. His specialty of dermatopathology, or pathology of the skin, is complex. With an estimated 1,500 different diagnoses that need to be contemplated while reviewing skin biopsies, an in depth understanding of skin disease is essential, and acquired through subspecialist fellowship training.

Out of this myriad of diseases, Oble believes that the diagnoses of melanoma is arguably the most challenging task in dermatopathology. Not only are the stakes very high, as this deadly disease often affects people in the prime of their life, but melanoma can also be very subtle to recognize. Furthermore, numerous benign lesions can mimic melanoma. Given that melanoma is increasing in frequency, Oble concedes that this problem requires more public health awareness as well as more up to date tools to better diagnose the disease and to reduce the number of false positive and false negative diagnoses.

Oble's lab is attempting to bring such tools to Manitobans by validating

a new technology which has already been shown to increase the diagnostic accuracy of difficult pigmented lesions of the skin. This research, funded by a grant from Diagnostic Services of Manitoba, focuses on fluorescent *in situ* hybridization (FISH). Chromosome-binding fluorescent probes visualized under the microscope help detect common mutations known to occur in melanoma, thereby revealing the so-called genetic "signature" or "bar-code" of this disease.

"By having these tools, pathologists can conduct this analysis in house rather than sending it elsewhere," he says. "The process will be less expensive for tax-payers, give faster results for the patients, and develop the local expertise needed to perform this kind of sophisticated testing. This will have widespread benefits for Manitoba research and clinical care."

Oble also has an interest in the study of blood cancers that primarily involve the skin (cutaneous lymphomas) for which no common genetic pattern has been recognized. Diagnosis is again notoriously difficult, often requiring multiple biopsies performed over a period of years. Oble hopes that the techniques utilized for melanoma FISH testing may eventually be applied to this blood cancer research, and hopefully aid in the routine clinical diagnoses of these cancers as well.

In addition, Oble is collaborating with colleagues at CancerCare Manitoba including Ralph Wong, assistant professor of internal medicine, and dermatologist Marnie Wiseman. Their work involves the study of various novel therapies for metastatic malignant melanoma, the treatment of which has been largely unchanged for decades and minimally successful. Some of these therapies attempt to modulate the immune system's response to

melanoma while other strategies involve a "personalized" approach that relies upon the detection of specific mutations. The identification of specific genetic mutations can indicate which chemotherapy protocol a patient may respond best to.

The Oble lab is also studying other elements of skin disease including certain inflammatory skin diseases, for which they recently received funding from the Dr. Paul H.T. Thorlakson Foundation Fund as the top ranked proposal in their research category.

Oble explains, "When immune cells are no longer in the correct balance, individuals develop disorganized immune responses that lead to immunopathology," commonly referred to as autoimmune disease - a category of immunologically-mediated diseases that includes Type 1 diabetes, inflammatory bowel disease, psoriasis, multiple sclerosis, lupus, and numerous others.

Oble says this research will lead to a better understanding of immunobiology enabling the development of specific pharmaceutical agents that can modulate the immune response. Such biological agents have already proven to be effective in cancer therapy, such as with melanoma, as well as for numerous autoimmune diseases.

Oble believes that "supporting these research endeavors and embracing the resultant technology will strengthen our province's reputation as a world class research environment and lead to more successful patient care for Manitobans."

Summer safety: University of Manitoba Pharmacy grad student Daryl Fediuk discusses his research, which examines the potential health risks of applying sunscreen and insect repellent at the same time:

<http://youtu.be/Dllhw9elsV4>

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