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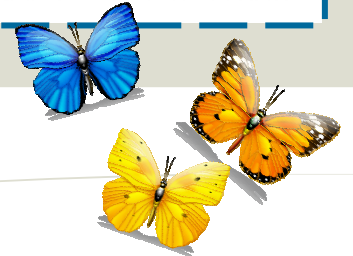


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Issue: Spring / Summer 2010



*AHFMR Interdisciplinary Chronic Disease Collaboration Team Grant — Committed to Reaching our Overall Objective of Improving the Efficient and Equitable Care of Patients with Chronic Medical Conditions.*

Welcome to the Spring & Summer edition of the ICDC newsletter. The newsletter is sent, via email to all of our ICDC Team Members in order to keep everyone updated on our progress. We invite your feedback and ideas on content at anytime.

## ICDC RESEARCH

### **Reduced Kidney Function and High Levels of Protein in Urine Associated With Increased Risk of Death, Heart Attack and Kidney Failure.**

Patients with high levels of proteinuria (protein in urine), in addition to another marker of reduced kidney function, had an associated increased risk of all-cause death, heart attack or progression to kidney failure, according to a study undertaken by researchers in the ICDC, published in **JAMA (Relation between Kidney Function, Proteinuria, and Adverse Outcomes. JAMA 2010;303;423-429).**

The current system for determining the stage of chronic kidney disease (CKD) is based primarily on the estimated rate of glomerular filtration (eGFR; measure of the kidneys' ability to filter and remove waste products), with lower eGFR associated with higher risk of adverse outcomes. These guidelines have been criticized because they do not incorporate information about the presence and severity of proteinuria, an important marker of CKD that is associated with adverse outcomes.

This study used data from the Alberta Kidney Disease Network (AKDN) repository of laboratory data and examined the association between reduced eGFR, proteinuria, and adverse clinical outcomes (including all-cause death, heart attack, and progression to kidney failure). There were 920,985 adults who had at least 1 outpatient serum creatinine measurement between 2002 and 2007. The researchers found that within each level of eGFR, there was substantial variability in risk; participants who had greater amounts of proteinuria having increased adjusted rates of all 4 adverse outcomes. Patients with heavy proteinuria but without overtly abnormal eGFR appeared to have worse clinical outcomes than those with moderately reduced eGFR but without proteinuria.



## ICDC RESEARCH (CONT'D)

These findings are important because current guidelines for the classification and staging of CKD are based on eGFR alone, without explicit consideration of the severity of concomitant proteinuria. Although the findings do not directly address which patients would benefit from referral to a nephrologist, they do suggest that risk stratification performed in terms of eGFR alone is relatively insensitive to clinically relevant gradients in risk, and suggest that future revisions of the classification system for CKD should incorporate information from proteinuria.

We would like to take this opportunity to thank AHFMR for their generous contributions and support of our program, and to remind team members to acknowledge AHFMR's role when publishing any articles, posters or other presentations of your research.

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## ICDC TRAINING PROGRAM

In May, the training program kicked off with an orientation in Calgary for all ICDC MSc, PhD and Post-Doctorate Fellows. The orientation provided trainees with an introduction to the ICDC program, its objectives, the laboratory and administrative data structure, and the types of projects being conducted to date.

Throughout the training program learners will be encouraged to complete course work in relevant disciplines outside their primary area of focus. The training component of our program will itself be the focus of research, with researchers from the Faculty of Business studying the training and organizational structure within the team and evaluating its success as a training program using accepted metrics. The research findings will be published in peer-reviewed educational methods journals.

There will be unique opportunities for students to participate in a 'hands-on' practicum to gain experience working directly with health care decision-makers. Student research projects will be interdisciplinary in nature and all will include an active KT program. KT training will be further enhanced by involvement with the national training component of KT Canada and by involving students in KT training sessions offered by AI-HS. Mandatory student participation in half to full day sessions four times a year (initiated May 2010) will bring students together from various sites and serve to showcase research findings.

The quarterly training sessions will expose undergraduate, graduate, clinical and post-doctoral fellows, faculty and decision-makers to student work, invited speakers and the entire spectrum of researchers and disciplines that are integrated in our team. Participation in the seminars will encourage discussion, peer-review and dissemination of research findings. The curriculum for these training sessions has been developed using a formal needs assessment and reflects learner's needs. Attendance at the seminars will be made possible by videoconferencing facilities, which will be set up in areas that have been designated for use by the ICDC team. In addition to the quarterly seminars trainees will also attend biweekly research rounds, which include journal club and research in progress. Trainees will have the opportunity to present at these rounds, both their research projects, related activities and critical appraisal of a relevant published article for the journal club sessions, all of which will enhance their research and presentation skills.



# ICDC TRAINEE PROFILE

Paul Ronksley is a PhD student in the Department of Community Health Sciences at the University of Calgary. His training includes a BSc in Biological Sciences, as well as a MSc in Epidemiology from the Department of Community Health Sciences. Paul has considerable experience in the use of Alberta Health and Wellness administrative data, which he developed during his Master's thesis utilizing administrative data to assess health care use and outcomes for patients referred for assessment of sleep apnea.

Paul will continue to build on his expertise with use of computerized data sources in his PhD thesis, which is linked to objectives outlined in Phase 1 of the ICDC protocol. Under the supervision of Dr Hemmelgarn and with ICDC thesis committee members Drs Sanmartin and Ravani, Paul will link Alberta Health and Wellness administrative data with population-based survey data available through Statistics Canada.



This will represent the first time such linkage is undertaken in Alberta. Combining these two data sources will provide additional detail and information not available from administrative data alone, including information on health behaviors and perceived unmet health care needs. This information will be instrumental in measuring the burden of specific chronic diseases in Alberta, identifying predictors of unmet health care needs amongst chronic disease populations, and finally determining if these unmet needs result in poor health outcomes later in life. Paul was recently awarded the CIHR Frederick Banting and Charles Best Canada Graduate Scholarship – Doctoral Award in support of this exciting project.

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## ICDC OPPORTUNITIES FOR MSc, PhD AND POST-DOC



There are a number of opportunities available through ICDC for MSc, PhD and post-doctorate candidates who are interested in studying epidemiological or health services research.

All ICDC candidates will be encouraged to seek funding through the Canadian Institutes of Health Research (CIHR) or the Alberta Heritage Foundation for Medical Research (AHFMR). However, if a candidate requires immediate funding or the candidate's funding request is not successful, funding may be made available through ICDC for qualified candidates.

Graduate students with the ICDC research team will undertake research projects related to the team's research agenda, and will also have the opportunity to participate in activities of relevance to their training in health services research.

For more information or to discuss the eligibility of a candidate, please contact Dr. Brenda Hemmelgarn at [brenda.hemmelgarn@albertahealthservices.ca](mailto:brenda.hemmelgarn@albertahealthservices.ca)





## KNOWLEDGE SHARING

On February 24, 2010, the honourable Minister Horner introduced Dr. Braden Manns and the ICDC program to the Alberta Legislative Assembly. The details of the introduction can be found on page 269 of *The Alberta Hansard* via the following link: [http://www.assembly.ab.ca/ISYS/LADDAR\\_files/docs/hansards/han/legislature\\_27/session\\_3/20100224\\_1330\\_01\\_han.pdf](http://www.assembly.ab.ca/ISYS/LADDAR_files/docs/hansards/han/legislature_27/session_3/20100224_1330_01_han.pdf)

## WEBSITE LAUNCH

At the end of February, the ICDC website was launched ([www.icdc.ca](http://www.icdc.ca)). The site features information on the program, team members, our publications, newsletters, trainee opportunities and more.



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We would love to hear from you. If you have any comments or suggestions for content of the newsletter, our programs or our website please feel free to email the ICDC Program Manager, Anita Kozinski [akozinsk@ucalgary.ca](mailto:akozinsk@ucalgary.ca)

In addition to our quarterly newsletter, information and updates on our research can be found on our website at [www.icdc.ca](http://www.icdc.ca)

