Public engagement and social accountability in the Faculty of Medicine

Research that makes a difference
Message from the Dean

IN THE WORDS of President Gary Kachanoski, Memorial is: “A public university committed to the public good and to fulfilling our special obligation to the people of this great province.” The first goal of Memorial University’s new Public Engagement Framework is to make a positive difference in our communities, province, country and world. Since it was founded in 1967, the Faculty of Medicine has been responsive to the needs of the community, collaboratively learning about and responding to these needs through research and education.

We know that our medical school is making a substantial contribution to the local physician supply, currently producing over half the physicians working in the province. We also know that some of the predictors of a doctor working in Newfoundland and Labrador include having a rural background, being from Newfoundland and Labrador, or having done some or all residency training at Memorial. We start right from high school through our summer MedQuest program, which introduces young students to careers in the health care professions. Between 30 and 40 per cent of our undergraduate medical student population comes from rural areas, compared to a Canadian average of 11 per cent.

Our undergraduate medical curriculum provides rural experience starting in Year 1, and students can choose to do all of their clerkship in rural and regional areas.

Later this year we will be rolling out our new undergraduate curriculum, whose core concentrates on building communities. We’re very excited that starting this summer we are increasing our capacity to train doctors – with the new building nearing completion, we plan to accept 80 medical students this year, and 60 of these students will be from Newfoundland and Labrador (up from an historical baseline of 40).

Our postgraduate residency programs also have a strong rural focus, particularly in family medicine. We’ve already started increasing our residency training capacity, focusing on Burin and Grand Falls-Windsor, to provide more family medicine residents the opportunity to do up to nine months of their two-year program outside St. John’s. These rural-based residency options will be modeled on the Northern Family Medicine Education Program (NorFam), based at Goose Bay, which has been successfully educating residents for more than 20 years. We are also participating in the Nunavut Family Physician Residents Project (NunaFam) project, which is supporting eight new family medicine residents.

In line with our move towards more educational experience in rural areas, the Rural Medical Education Network involves about 30 community sites and the number of full-time faculty outside St. John’s has been increased to eight.

Our research is inspired by, and responds to, community needs. We do research that makes a difference throughout the province, and you can read about many of these initiatives in this issue of MUNMED. Clinically, we have research locations throughout the province, for example in Grand Falls-Windsor, conducting research in genetics and health services (see page 11).

There are many stories in this issue of MUNMED that illustrate our long-standing commitment to public engagement. Last fall we celebrated the 20th anniversary of the Health Research Unit, the research unit of Community Health and Humanities that responds directly to community needs. Over 40 years ago we established out first community family medicine clinic in what was then known as Blackhead Road. Today the Shea Heights Health Centre is a vibrant part of the community, offering service and educational opportunities to students in the health professions in a positive interdisciplinary environment (see page 3). The student-initiated Gateway Project is a model of community engagement, helping to integrate new Canadians into our health care system (see pp. 4-5).

Moving forward, we will continue to integrate public engagement and social accountability into our education, research and day-to-day management. This involves the activities of students, staff and faculty in educational research projects throughout the province as we strive to fulfill our vision to build a healthy tomorrow through engagement, education and research that makes a difference to the people of Newfoundland and Labrador and beyond.

Cover photo:
Medical student Emily Kendell with Ramadhan Ali Ibrahim from Uganda during a Gateway session last year. Photo by Tyler John
Teamwork and service key to community-based teaching

HIGH IN THE HILLS above St. John’s, the Shea Heights Community Health Centre offers a unique clinical experience with a multidisciplinary and interprofessional approach to health care in a rural atmosphere. Family doctors work with a public health nurse, a community health nurse, a social worker and pharmacists, offering residents and medical students a real experience of teamwork and service to a community.

Dr. Cheri Bethune has worked at Shea Heights for three decades, dividing her time between the clinic and the university. She recalls that it was the vision of Dr. John Lewis, working with local priest Father Shea and several community activists that brought essential health care services to this community.

“Dr. Lewis started a clinic in the school classroom in the late 1960s and then lobbied for further resources,” explained Dr. Bethune. “Within 10 years Shea Heights emerged from a community with health care indices similar to the third world to that of Canadian standards. Nearly 40 years later, Dr. Lewis’ model of interprofessional primary health care is a model of practice to be envied.”

Working as the only family physician at first, and with a background in social work, Dr. Bethune worked collaboratively with the public health nurse and a social work student. “The clinic was directed by an elected community board that met on a monthly basis. It was a vibrant organization with lots of community outreach such as a community newsletter and a cooperative pre-school, a project that was spearheaded by the social work student in collaboration with interested community members.”

As the community developed, helped at the time by Memorial’s Extension Services, Dr. Bethune recalls that there were numerous projects for youth, seniors and recreation. A permanent social worker became part of the health care centre and in 1996 a new building replaced the original old structure. This new building incorporated the concept of broad community utilization with meeting rooms and a kitchen for community events. Seniors groups, youth groups and organizations such as Cubs utilized the new facility throughout the day and evening.

The enlarged facility permitted the expansion of services by family doctors and also expansion of the teaching opportunities for all disciplines involved, which includes family medicine, social work, nursing and pharmacy. Working interprofessionally, the group has enhanced service and teaching with community-based health research. As room became available, renovations were made to free up space for students and residents.

Dr. Bethune speaks enthusiastically about the advantage of teaching medical students and residents at Shea Heights. “It’s pure joy to take students out and meet real people in a real community. Shea Heights is like an outpost on the edge of town. It’s a wonderful teaching environment.”
Gateway Project engages medical students with refugee community

BY HELPING NEWLY-ARRIVED refugees access the Canadian health care system, the MUN Med Gateway Project allows medical students at Memorial learn valuable clinical skills, gain exposure to cross-cultural health care, and practice leadership and community action.

“The project also benefits refugees by giving them increased access to health care and a foundation for their relationship with their family doctor,” said Kate Duff, the staff co-ordinator for Gateway. “By having an initial medical history done for each refugee, it also benefits society by decreasing the pressure on family doctors. The overall result is a healthier refugee population and future doctors with experience in cross-cultural practice.”

The volunteer project, started in 2005 by second-year medical students Monica Kidd and Yoella Teplitsky, is now an established program in the Faculty of Medicine, in partnership with the Association for New Canadians (ANC) and Eastern Health. On Tuesday afternoons, first- and second-year medical students volunteer at Gateway sessions where they develop medical histories for refugees, working hand-in-hand with Eastern Health public nurse Barbara Albrechtsen and the ANC, a settlement agency in charge of welcoming newcomers to the province.

Dr. Pauline Duke is a family doctor who supervises the students onsite at the weekly sessions. She is one of the faculty advisors who has been involved with the program since its beginning. Other faculty advisors are Dr. Shree Mulay, associate dean of the Division of Community Health and Humanities, and Dr. Gerard Farrell, director of the eHealth Research Unit, who ensures the security of the database used for the project. Dr. Fern Brunger, associate professor of health care ethics, was one of the original faculty advisors and now leads the research component of Gateway.

Dr. Duke emphasized that Gateway is a program of partnerships. “Our medical students are learning to work with other health care professionals and community groups.”

The Gateway sessions involve developing medical histories through an interview to gather information from participants and a physical screening. The weekly sessions take place at the ANC’s public health clinic. Refugees are usually seen within two weeks of arriving in St. John’s, and the visit often involves the help of translators. The screening includes blood pressure, height, weight, hearing check, vision check and dental check. The Gateway Project also helps match patients with a family doctor, and, if necessary, referrals are made to other health care professions.

A new screening test introduced last year is for tuberculosis. “We were concerned TB testing wasn’t being done in an organized fashion, so we do the first test through Gateway,” explained Dr. Duke.

The student visits are co-ordinated by student volunteers, with the help of Ms. Duff. This year Felicia Pickard and Joy Crocker are the student co-ordinators. “We are their first connection,” said Ms. Pickard. “For us, it’s a great way to practice our clinical skills. The majority of first-year students sign up and about half the second-year students.”

The Gateway Project has grown beyond its original goals of developing medical histories, providing screenings and matching refugees to a family doctor. Following an occurrence four years ago where two refugee children were seen with rickets, medical students involved with the Public Health Interest Group and Gateway approached Walmart and arranged for vitamin D drops to be supplied for free to all families with babies. The drops are given to the families by Ms. Albrechtsen, who explains to refugee parents how to use them.

Another initiative involves car seat safety. Noticing that many refugee families didn’t have car seats, the students fundraised and bought over 40 car seats last year, partnering with Brighter Futures and the Kids in Safe Seats Program to show families how to install them correctly.

“There is a huge, ongoing need for car seats for these families,” said Ms. Albrechtsen. “Medical students in the Global Health Interest Group and the Gateway Project recently raised $400 for Gateway; we’ll use $100 of that for refreshments for our Youth Immunization Project and the rest for more new car seats.”

The medical students involved in Gateway are only too happy to help out in any way above and beyond their participation in the weekly clinics. They hosted a holiday
Catherine Winsor and Paul Crocker were the Gateway student co-ordinators last year. “We feel that the Gateway Project is essential in bridging the gap that exists between refugees and the health care system,” said Ms. Winsor. “It is not that the health care system is not available to this population but it is not easily accessible or navigated.”

Mr. Crocker said one of the greatest memories of participating in Gateway was the opportunity to engage the refugee population, as well as being privileged to hear some of their incredible life stories. “Many of the refugees that came through Gateway last year had lived in refugee camps for over 20 years and their children have only known life in the camps. To hear about their journey to Canada and a new life is humbling and eye opening. It makes us realize how lucky we are to be Canadian and how, as a country, we have a responsibility to help vulnerable populations.”

Dr. Duke said one of the main challenges with the Gateway Project is to find new doctors to take on refugee patients. “We have about six doctors willing to see refugees at the moment; it varies from year to year. Seeing a refugee patient takes longer and often a translator has to be involved. It’s a labour of love for physicians who take it on.”

One of the lasting effects of the Gateway Project has been an ongoing interest in the health problems of the refugee population. Two family medicine residents who participated in Gateway as medical students, Drs. Amy Pieroway and Heather O’Dea, designed a research project around women’s health and set up well-women clinics where refugee women could attend an evening clinic for Pap smears, breast examinations and contraception information.

“The Gateway Project has really affected the medical students who participate, and they have taken on the responsibility of providing health care to vulnerable populations,” said Dr. Duke. “It has also raised political awareness – some of our students participated in last June’s National Day of Action protesting the federal government’s plan to change health care coverage for refugees.”

A video on the Gateway Project has been produced by a former Gateway volunteer, Dr. Russell Dawe, in order to entice more family doctors to become involved. It can be viewed at bit.ly/12M9brb. For more information on the Gateway Project visit www.med.mun.ca/MunMedGateway/.
Thinking globally

PUBLIC ENGAGEMENT

in an international setting is of increasing interest to medical students at Memorial. Since the Global Health Interest Group was started by medical students in 2011, awareness about international electives has grown. To facilitate that, the Faculty of Medicine established a Global Health Office a year ago.

Dr. Jill Allison is the global health co-ordinator. With funding from the Medical Graduates’ Society 2012 Dr. Wallace Ingram Award, she is working with Dr. Shree Mulay, associate dean of the Division of Community Health and Humanities, to pilot the International Summer Institute for Global Health Training (InSIGHT) in conjunction with the Patan Academy of Health Sciences at the Patan Hospital in Nepal this year.

Dr. Mulay said the InSIGHT program will provide a model for global health electives for the future. In addition to seeing health care delivery in a low income country, there will be seminars, speakers and field trips with human rights activists, non-government organizations and economic development programs as well as visits to women's health programs in rural communities.

Dr. Allison said seven pre-clerkship students, five from first year and two from second year, have been selected for the InSIGHT Program. “It’s a different kind of elective for pre-clerkship. Students will do a clinical observership of physicians in Nepal as well as looking at social justice, gender issues, family dynamics and child trafficking in context.”

The breadth of knowledge about international health is informed by Dr. Mulay’s own research in Bhopal, India. Considered the world’s worst industrial disaster, the Bhopal gas tragedy in December 1984 at the Union Carbide India Limited pesticide plant exposed over 500,000 people to methyl isocyanate gas and other chemicals. Dr. Mulay’s study on the long-term effect of exposure to this gas involves about 100,000 individuals in 26,000 families.

Learning more about such global health issues is all part of the goal of Memorial’s Global Health Office. “There is a continuum of health and social justice issues locally, nationally and internationally,” said Dr. Allison. “We have a responsibility to know what’s going on in the world and to apply those lessons locally.”

In addition to the InSIGHT program, Dr. Allison helps students arrange other international electives. This year two clerkship students will be going to Mexico, five to India, and one each to Ecuador, Australia, Vietnam, Singapore, Malaysia and Egypt. A clerkship elective in rural South Africa is also being set up (see accompanying story on page 8).

The work of the Global Health Office involves overseeing the detailed application process for international electives and selectives. Students must sign a Code of Conduct and Ethics agreement, meet with the global health co-ordinator, apply and get approvals from the Undergraduate Medical Education Office, take pre-departure training, bring all immunizations up to date, sign appropriate risk management documents and waivers, and register with the Canadian government prior to departing Canada.

Dr. Allison has also organized a speaker’s series on global health issues. She is delighted that the students themselves have organized a regular and highly successful journal club, which indicates the level of interest in global health issues. One project she’d like to see for the future is collaborating with harm reduction programs such as StreetReach, a program in downtown St. John’s that targets youth with multiple issues including addictions, housing, sexual exploitation, poverty, justice, and health.
Integrating art into research

WHEN IT COMES TO community engagement, Dr. Natalie Beausoleil and her PhD student Megan Morrison are deeply involved in a new way of health promotion.

Both women have a passion for art, and they are exploring whether artistic creativity can help provide emotional support and respite to familial caregivers of loved ones living with dementia.

The idea for the project, Health promotion through the arts: exploring new methodologies in research with elderly caregivers, came out of Ms. Morrison's master's project, Leaving Words Where You Find Them; a story with five women living with dementia in a residential care home in St. John's, Newfoundland.

In the current project, following initial interviews with caregivers in which they arrive at a personal definition of creativity, Ms. Morrison asks them to do a project in order to share their experience and knowledge in a creative way using metaphor, image, music and writing. “The idea of the project is to tie together the strengths they embody in their caregiving role. I am looking at how creativity impacts the caregiver role and the potential of a creative project to create something beautiful and informative from an often devastating journey caring for dementia.”

Dr. Beausoleil emphasized that this research is part of a broader approach to arts-based research. “It’s a new part of qualitative research that is tied to the community.”

The work for this project was supported in 2011 with a $10,000 grant from the Medical Research Endowment Fund (MRF). “This is an innovative project and the type of graduate level research I want to see more of,” said Dr. Beausoleil. The design for this research is inspired by a new trend in qualitative health research, using the arts as modes of data collection and analysis.”

Ms. Morrison explained that the aim of the project is to provide support to caregivers and generate further understanding of their experiences, leading to recommendations useful to people in the community and resource providers.

Dr. Beausoleil is a strong advocate of health promotion activities, in particular through the Body Image Network, a volunteer-run community network she co-founded in 2000 with psychologist Anne Wareham and dietitian Glendora Boland.

An essential part of the work of the Body Image Network (BIN) is building significant partnerships in the community with groups working towards promoting self-esteem and a positive body image for all. In 2007 BIN received a $40,000 Provincial Wellness Grant for the project Promoting Healthy Living, Self-Esteem and Positive Body Image.

Resources about accepting diverse bodies were developed for schools, aimed at Grade 2 and Grade 4. Following the production and distribution of the resources to all elementary schools in the province in 2010, Dr. Beausoleil and her colleague Dr. LeAnne Petherick (formerly with the School of Human Kinetics and Recreation at Memorial), in collaboration with the Body Image Network (BIN), obtained a $50,839 grant from the Public Health Agency of Canada, Healthy Living Funds, for their project Promoting Canada’s Vitality Message: an implementation and evaluation of a school-based body image resource.

This project aimed to explore the implementation and evaluation of the BIN resource. Through interviews and focus groups, students and teachers in four schools were invited to share their thoughts and understanding of body image, body satisfaction and other health-related issues. At the end of each focus group, students drew images of themselves doing something they liked (Grade 2) and trying a new activity with a friend (Grade 4).
Ms. Morrison participated in this project as a community liaison officer to help implement the use of the resources in schools and to help engage kids and teachers with the issues raised such as self-esteem, respect of different bodies and differences in general. Activities included circle games, tag variations, drama, improvisation games and discussions around theme in the Body Image Network toolkits.

“As one Grade 2 teacher mentioned in an interview, the students were unhappy the sessions were over as they had looked forward to these activities,” said Ms. Morrison. “The teacher felt the school should consider that such a community/school position be created in the future because the student demand is evident.”

Elective in rural South Africa now available

FOR FOURTH-YEAR medical students at Memorial with a yearning for adventure, a new rural medical elective is now in place in co-operation with the University of the Witwatersrand in Johannesburg, South Africa.

This option was arranged through Drs. Bob Miller and Cheri Bethune, Discipline of Family Medicine, while on sabbatical last year. They met with Professor Ian Couper, director of the Centre for Rural Health with the University of the Witwatersrand; he introduced them to the integrated primary care block during which students spent six weeks in primary care sites in Gauteng and North West provinces.

During this six-week elective, students go in groups of six, and once a week they get together via teleconference with specialists to discuss cases.

“We talked with Professor Couper about opportunities for medical students from Memorial, and he was keen on our students and family medicine residents participating in this program,” said Dr. Miller. “We are developing a memorandum of understanding with Wits University so Memorial students can be integrated into this group. English is the language of education, and accommodations are supplied with the hospital, but the student does have to cover the costs of travel.”

Although the MOU has not yet been officially signed, Dr. Miller said the South African elective is available now to interested students. He noted that it will take a time commitment of at least two months, because it will include a two-week orientation and the six week elective.”

“This is an accredited medical school, and we know the supervision would be good,” said Dr. Miller. “It is truly an educational as well as a life experience.”
A community approach to health promotion

**HEALTH PROMOTION** through community participation and community capacity building is complex and challenging. Dr. Martha Traverso-Yépez, Canada Research Chair in Health Promotion and Community Development, knows from experience that working with a community approach is not straightforward, and is only successful if it is consensually built by the stakeholders involved.

Dr. Traverso-Yépez has been involved in a research project in rural Newfoundland funded by the Industrial Research and Innovation Fund. “Our research was a case study of two community wellness programs funded by the Provincial Wellness grants. The aim was to explore how a sense of community would respond to proactive involvement in health and wellness activities as suggested by the Provincial Wellness Program,” she explained.

One of the programs was a community kitchen in a small urban area. The main economic activity in the area includes tourism, a couple of seafood processing plants and one medium-size industry. “The community kitchen was started by volunteers in 2007, with a small group of participants both from within the neighbourhood and from outside the community,” said Dr. Traverso-Yépez. Although facilitated at the time of the research in 2010 by a paid community kitchen co-ordinator, participants said the main problem was the sustainability of the kitchen due to the loss of momentum when the short-term funding expires in five months.

In group interviews, community participants identified their main health issues as quitting smoking, healthy eating, more volunteering and involvement in community life, exercise and an active lifestyle, and access to sports and recreation activities.

“In all of the sessions, people highlighted how important the kitchen gatherings were for their mental health,” said Dr. Traverso-Yépez. “Other things mentioned included a good social life, caring for older people, having regular checkups, laughter, meditation, being careful to prevent injuries, and knowledge and awareness.”

Although participants emphasized healthy eating as a priority, the interviews showed that social environment plays a strong role in defining eating habits and food choices. “In one interview, we learned that a participant in her late 50s had never eaten uncooked greens in her life and was not about to begin,” said Dr. Traverso-Yépez. “Another participant explained she regularly consumed boxed macaroni and cheese because it tasted good and was affordable.” Beyond affordability, a strong local concern was the lack of public transport to buy fresh produce, forcing members of the community to consume processed and canned foods.

Other sessions focused on the areas of the strengths and assets of the community. Participants highlighted needs instead, such as more personal commitment and community participation, helping kids to stay in school, literacy programs, skills development for all ages and increased support for elders, youth, single parents and minorities. Overall, the community kitchen was identified as being of value not only as a space for health education and nutrition but more importantly as a place for positive socializing and recreation.

At the second research site, a small community of less than 200 persons, the Recreation Committee wanted to use the grant money from the Provincial Wellness Grant Program to support wellness activities such as seniors’ mobilization, catering for outreach events, buying sports equipment such as basketballs, and for transporting people to and from a swimming pool in another community.

In this community group, the main health concerns were getting exercise, enjoying outdoor activities and eating healthy, home-cooked food. Participants felt positive about the community’s assets, such as the Recreation Committee, the fire brigade, a small church group, the Come Home Committee (which was organizing a gathering for 2012 at the time), celebrating holidays such as New Year’s Eve with dances, and hobbies such as fishing and gardening.

As a result of her research projects, Dr. Traverso-Yépez said there is a need for continued resources and efforts to enhance leadership and the capacity to mobilize the sense of community, to recruit and train participants, and to maintain ongoing communication of shared knowledge and experiences, considering how important social connections are for health and well-being. “Our research demonstrates that communities are dynamic, mobile systems formed through the specific motivations of participants, with the power to avail – or not – of organizational resources and human and social capital to engage in higher levels of commitment,” she said.
A unique approach to evidence-informed health care decisions

APPLIED HEALTH RESEARCHERS are challenged with finding ways to increase the use of scientific evidence in health care decision making. An equivalent challenge for health care decision makers is finding ways to obtain and use the best scientific evidence as an important input in arriving at their decision.

The Newfoundland and Labrador Centre for Applied Health Research (NLCAHR) has developed an innovative program to address these twin challenges. The Contextualized Health Research Synthesis Program (CHRSP) works in partnership with key decision makers in the provincial health system to identify questions of urgent importance and to provide evidence that is both up-to-date and contextualized.

Dr. Stephen Bornstein is the program director for CHRSP. “This program provides locally relevant evidence, attuned to our provincial demographics. Our researchers also recognize the capacities and limitations of our health care system. We take into account that what may work in New York City will not necessarily work here.”

The CHRSP approach is an innovative example of integrated knowledge translation, wherein decision makers and researchers work together to focus on specific issues instead of broad themes; ask health system leaders to identify issues of concern; use research expertise to formulate researchable questions; synthesize quality research literature (systematic reviews rather than individual studies; tailor the syntheses to the local context (challenges, capacities); and report research results quickly and in usable formats.

When asked how CHRSP research topics are chosen, Dr. Bornstein explained that it is always in partnership. “We’ve engaged senior decision makers in the Regional Health Authorities (RHAs) and the Department of Health and Community Services who have volunteered to be CHRSP Champions. They seek suggestions for research topics from throughout their organizations. The long list of topics is filtered on the basis of importance, timeliness, feasibility, the availability of evidence and research teams. After several rounds of voting from among the four RHAs and the Department of Health and Community Services, the CHRSP team meets with the four CEOs and the deputy minister of health to reach consensus on the topics that CHRSP will study for the coming year.”

CHRSP produces two products: Evidence in Context Reports which are detailed evidence syntheses that take roughly six months to complete, and Rapid Evidence Reports which are brief summaries of research evidence for topics requiring more immediate, if less detailed, analysis.

For each topic, CHRSP builds a research team. Pablo Navarro, senior research officer with CHRSP, pointed out that:

“Our health system partners are key members of every research team, working with us from the formulation of the research question, through to the publication of the results.”

National or international experts, academic co-investigators, health economists, and context advisors from within the health system, round out CHRSP’s multi-disciplinary research teams.

CHRSP contextualizes research evidence, shaping questions and drawing conclusions from synthesized evidence, including looking at the specific forms an issue takes in Newfoundland and Labrador and how proposed solutions and methods might apply to locally available resources, cultural conditions and financial capacities.

Does the CHRSP process work?

“It does,” Mr. Navarro said. “When we ask our partners if, and how, CHRSP evidence was used to support decisions, they tell us we’ve helped guide their decisions around subjects as diverse as establishing youth residential treatment services to identifying safe patient handling techniques to how we can support age-friendly acute care in the province. CHRSP is an excellent example of a sustainable partnership between knowledge producers and knowledge users. In forging this partnership, we’ve created a way to both produce and use evidence that recognizes the unique challenges faced by our health system in Newfoundland and Labrador.”
Public engagement key to genetics research

GENETICS RESEARCH at Memorial is a model for public engagement in research. From the early days of painstaking data collection and compilation of family pedigrees, genetics faculty members such as Dr. Jane Green have been meticulous in ensuring that the families who participate in research studies are informed of the results.

Human genetics research at Memorial has developed rapidly and today there are a wide range of projects province-wide, including the Community Health Outreach Office in Grand Falls-Windsor. Dr. Holly Etchegary is a clinical research scientist with Eastern Health, and a leader in Genetic Ethical Legal and Social Issues for the interdisciplinary team in human genetics in the Faculty of Medicine.

According to Dr. Etchegary, when it comes to health related research, sustained relationships and public engagement have the potential to lead to better results. “If we engage families in our research from the beginning, we have a much better chance of following them through the process,” she explained. “We can identify them, help them and provide support.”

It was this realization that led the interdisciplinary team to the development of the Community Health Outreach Office in Grand Falls-Windsor, a hub for research on human genetics disorders and population health initiated by Dr. Patrick Parfrey and his team. Opened in 2010, the office is the first step in a plan to develop a network of community outreach offices in each of the province’s four health regions, a project supported by funding from the Atlantic Canada Opportunities Agency. Further federal funding of $385,000 was announced in December 2012 for another community outreach office in Corner Brook.

Soon after its inception, the Grand Falls-Windsor office launched the Colorectal Cancer Screening Program for families at increased risk of colorectal cancer in the Central Health Region. Colorectal cancer is the most heritable of the common cancers and can be prevented by screening, as colonoscopy removes polyps before they become cancerous. The familial colorectal cancer clinic involves contacting all patients who present with colorectal cancer in the region and collecting a family history of cancer to identify families whose members are at high risk. From this, advice on the optimal colonoscopy screening program relatives should undertake.

Dr. Elizabeth Dicks has also been a big part of the colorectal cancer project for many years, and has done her part to connect with participants through newsletters and personal contact. She was also involved with Drs. Etchegary and Green in this project.

While each regional office will have distinct projects, the fundamental purpose is the same for all: to translate key genetic research findings back to the community, their health care providers, and, ultimately, to improve the delivery of care in remote areas of the province.

To identify the specific needs for the Grand Falls-Windsor office, Dr. Etchegary and Dr. Green went straight to the community, holding consultations with families from St. John’s to Grand Falls-Windsor. After sending personal invitations to rotary clubs and community groups, the two researchers led seven group sessions in the fall of 2010, where attendees were encouraged to ask questions, learn and relate to one another about their experiences with genetic testing.

Before the Grand Falls-Windsor clinic opened, residents of surrounding communities had to travel to St. John’s for screening appointments, a time consuming and potentially stressful trip. By extending this service closer to home, Dr. Etchegary said the outreach office has undoubtedly served a practical benefit to the people of Grand Falls-Windsor.

Sharing the results of research projects is also an integral part of Dr. Etchegary’s work. “We do transparent research. It’s part of our responsibility as researchers to be accountable, not only to our funders, but to the people who allow us to do the research.”

Two papers about the community consultations are still under review, but Dr. Etchegary also plans to send summary reports to those who participated. She says she continuously strives to feed findings back to people, establishing a stronger, more sustainable relationship.

Ultimately, Dr. Etchegary believes that connecting to community opinion helps form a base for community-supported, evidence-based public policy. “That’s the important thing to remember about public engagement research,” she says. “You must strive to create a service or a policy that is informed in a real way by the people.”
**Water research and outreach**

**CLEAN AND SAFE** drinking water is a key health concern in a province where about one-quarter of the population uses groundwater for household purposes, mainly through private wells.

A study on the groundwater quality of private wells in western Newfoundland communities was completed last year by community health researchers Drs. Atanu Sarkar and James Valcour in collaboration with Dr. Mano Krishnapillai of the Department of Environmental Science at Grenfell Campus. The research project was funded under the Harris Centre’s RBC Water Research and Outreach Fund.

While public water supply systems treat water and fall under the regulations of the Department of Environment and Conservation, private water sources are outside this mandate and lack mandatory treatment and monitoring guidelines.

“The Department of Health and Community Services provides free service to analyze domestic water for coliform bacteria but there is a low utilization of this service, indicating lack of awareness and accessibility of the service,” explained Dr. Sarkar, principal investigator for this project and assistant professor of environmental and occupational health. “Over the course of this study, we realized that many of the people drinking the water aren’t aware of the potential risks of untreated water. Regular monitoring of groundwater is needed to prevent any form of adverse health outcomes.”

The study was carried out in seven communities of western Newfoundland, where about 30 per cent of people use private groundwater or springs. Dr. Sarkar carried out individual well water testing, interviews and focus group discussions in the communities.

“This research study was only possible because the communities shared their issues and concerns,” he said.

Water samples were taken in summer and fall, and sent to the Department of Services in Corner Brook for microbiological analyses and to the office of the Department of Environment and Conservation to ship to Ottawa for physical and chemical tests because there is no accredited laboratory in this province for such testing.

The results identified microbial issues in many wells; two water samples had high arsenic and one sample had high fluoride. Individual household test results were shared with the household by telephone and by mail.

“Before this study several households did not filter water and had full faith in its quality,” said Dr. Sarkar. “Our study has changed the perspective of water quality among some participants.

The research study concluded that because communities utilize water for all regular household activities such as cooking, drinking and washing, maintenance of the water quality of private wells is extremely important. “As multiple departments are involved in management of water, we believe a coherent policy of co-ordination and sharing of information will benefit the community,” said Dr. Sarkar.

Following a meeting in Corner Brook to share these research findings with the community, the researchers recommended that there is a need for a complete inventory of private water resources in the whole province.

“We need stronger regulation for the registration of existing and future wells,” said Dr. Sarkar. “Municipalities and the provincial government have keys roles to play to protect water resources, particularly in remote communities.”

Dr. Sarkar also said that information dissemination on water quality and its management needs to be improved and there is a need for an accredited lab in Newfoundland and Labrador for analysis of physical and chemical parameters of water. Furthermore, he has stressed that the available facility should be accessible and affordable to the communities.

Dr. Sarkar is continuing with research on water quality in various parts of the province. In Indian Bay in Newfoundland, he is working with Dr. Kelly Vodden of Environmental Studies, Grenfell Campus. In Black Tickle, the most remote community in Labrador and inhabited by Aboriginal people, he is working with Dr. Maura Hanrahan, special advisor to the university president on Aboriginal affairs; they will carry out quality studies of all water sources.

Recently he has started a new project in Makkovik, Labrador, where overall environmental health issues around uranium mining will be explored. In this interdisciplinary research, Dr. Sarkar has teamed up with the Labrador Institute, Dr. Rebecca Schiff, assistant professor (Aboriginal health), who is based in Happy Valley-Goose Bay, and Dr. Derek Wilton, a professor in the Department of Earth Sciences.

In all these projects, local communities are actively involved in project planning, initiation and execution, and will continue to be engaged in follow-up. “Any targeted intervention to improve water quality should be community based,” said Dr. Sarkar. “The community should own the solution and we will provide support.”
NunatuKavut Research Ethics Project

IN COLLABORATION with the NunatuKavut of Labrador, medical anthropologist and ethicist Dr. Fern Brunger has investigated how best to implement and manage a system of Aboriginal governance of health research in communities with complex and multiple political and cultural jurisdictions.

NunatuKavut means “Our Ancient Land,” and is the territory of the southern Inuit people of Labrador, formerly the Labrador Métis. “Specifically, we looked at issues of NunatuKavut authority and representation in a context where multiple Aboriginal communities, regional health authorities, and a new province-wide research ethics board all must design and implement a system of ethical review of health research involving Aboriginal peoples,” said Dr. Brunger, who is an associate professor of health care ethics in the Division of Community Health and Humanities.

In July 2011 the provincial Health Research Ethics Authority (HREA) was established. “It is responsible for all human health research conducted in the province and this offered a unique opportunity to conduct a natural experiment to determine how best to implement national guidelines on research with Aboriginal people in a context where authority and representation are complex,” explained Dr. Brunger.

The goal of this project was to examine how best to set up an Aboriginal-based system for controlling what health research gets done in a community. Under the HREA, a central health research ethics board (HREB) reviews all clinical trials and genetics research, and the majority of other health research, within the province.

Pilot research first identified the complexity of the various political and cultural circles of belonging for the NunatuKavut. “This complexity is highly significant for the governance of health research,” said Dr. Brunger. “The review of research in communities by communities is necessarily as political and economic as it is cultural.”

Using a participatory action approach, the project was undertaken by a community-based sub team and an academic sub team of researchers. The two teams worked first independently and sequentially, and then together to define and answer questions of relevance to both teams. The community-based research team established and evaluated a process of Aboriginal governance of health research for the NunatuKavut. During the process, Dr. Brunger became a member of the NunatuKavut research review committee, participating in the regular work of reviewing researcher proposals and examining them for appropriateness to the NunatuKavut context. She also became a member of the Labrador Aboriginal Health Research Committee (LAHRC), a group comprised of representatives of all the Aboriginal communities in Labrador who work alongside a representative from the Labrador Institute and from Health Canada.

Four sets of key findings came out of this research project. “We advanced critical theory on the governance of health research involving socially identifiable populations, including informed and focused discussion on the concepts of community risk, vulnerability and representation in population based health research,” said Dr. Brunger. “Nationally, we have a case study that can inform the implementation of the CIHR’s Guidelines for Health Research Involving Aboriginal Peoples and provincially, we have made recommendations to the Health Research Ethics Authority for the review of health research involving Aboriginal communities. And for the Labrador NunatuKavut, we constructed a rigorous and community-based system for health research review.”

Dr. Brunger said a key theme that emerged through participant observation research, supported by interviews, was the notion of being “invisible” Aboriginals. “The idea of not being considered ‘interesting’ for research because of not being ‘sufficiently Aboriginal’ is key to the way that governance of research is constructed and worried over by NunatuKavut members – the coincidental timing of this research with the shift to a NunatuKavut identity in the wake of the hydro-electric protests is fundamental to the whole analysis of the politics of risk and representation in this context.”

One result of the project was creating a guide for researchers, with diagrams that provide a road map for navigating multiple types of reviews. The guide was developed for NunatuKavut and then redesigned into a generic roadmap for use within the province.

Dr. Brunger said the research gathered in this project is timely and important to Canadian health researchers, research ethics boards, and Aboriginal research review committees across Canada. “Results advance our understanding of how best to implement and manage a system of ethics review of health research involving First Nations, Inuit and Métis communities.”
Suicide in Labrador

SUICIDE IS A CRITICAL health issue in Aboriginal communities in Labrador, touching many lives and prompting community leaders to look for solutions.

Nathaniel Pollock, a PhD student in the Division of Community Health and Humanities, is trying to help with those solutions. He is co-supervised by Dr. Michael Jong, who has worked in Happy Valley-Goose Bay since 1982 and has close connections with the community; and Dr. Shree Mulay, associate dean of the Division of Community Health and Humanities, who has done extensive research with vulnerable populations and in women's health.

Mr. Pollock initially became interested in finding out more about suicide prevention while he was working in Happy Valley-Goose Bay in 2008-2009 as a social worker while his wife, Dr. Margo Wilson, was a resident in the Faculty of Medicine's Northern Family Medicine Training Program (NorFam). Regarding his decision to change career paths and start a PhD, Mr. Pollock said, “I think the health system and communities can do a better job of engaging young people and providing care and support during times of crisis.” He sees research as playing an important role in providing evidence that is directly relevant to local issues such as suicide.

In 2010-2011, Mr. Pollock completed his course work in St. John's, then moved with his family back to Labrador, where he works out of the Labrador Institute, and while his wife is practicing at the Labrador Health Centre. “This was a strategic decision related to my research,” said Mr. Pollock. “We like the lifestyle and feel connected socially, which is important in gaining trust in community research.”

Mr. Pollock said suicide in Labrador is about three times the rate in Newfoundland and a leading cause of death in some communities.

“Research in this area must be approached carefully and slowly and with a great deal of respect,” said Mr. Pollock, who began his research by talking to people throughout the region.

“Suicide has affected a lot of communities, and people in these communities have perspectives to share. I want to find out what people know and what ideas they have about how suicide can be prevented.”

In May 2012, Mr. Pollock held a day-long community workshop with frontline mental health staff to talk about what types of programs and interventions are already happening on a local level, and about how research might help provide information to service providers.

Although he is a long way from coming up with solutions, Mr. Pollock said he has been able to take anecdotal information and translate it into research questions. “We know that one concern is about the extent to which there's continuity in mental health services.”

Based on feedback from local Aboriginal governments, community members, and those in the health system, Mr. Pollock has started to look at the medical and social histories of people who have died by suicide and those that are at risk. “I am really interested in understanding how the mental health and health systems respond when a person is known to be at risk for suicide. I hope my research can tell us something about how to improve care in this area and keep people from falling through the cracks.”
Close to the ground in Labrador

DR. REBECCA SCHIFF has spent the last two years gaining acceptance, respect and trust with Aboriginal communities in Labrador.

Dr. Schiff is an assistant professor (Aboriginal health) in the Division of Community Health in Humanities, based at the Labrador Institute in Happy Valley-Goose Bay. A substantial portion of her time is spent on community engagement.

Moving to Happy Valley-Goose Bay has worked out well for Dr. Schiff. “I have the advantage of being able to live in Labrador and work closely with the communities here. This lends new and enriched perspective to the work that I do with the Aboriginal communities here.”

Dr. Schiff has a background working with non-profit agencies and she has found it helps to work with such groups in order to get to know the communities. Her ongoing community involvement includes serving on the Labrador Aboriginal Health Research Committee, co-chairing the Happy Valley-Goose Bay Community Advisory Board on Housing and Homelessness, serving as a board member of the Mokami Status of Women Council and serving on the Lake Melville Food Security Network Committee. For the last five years she has also been a steering committee member for Food Secure Canada, the community part of national-level work with the Canadian Association of Food Studies.

Through her engagement with Aboriginal groups and committees, Dr. Schiff’s research ideas and projects are defined by communities in partnership with researchers. “The community drives the focus of the research,” she explained.

During her time in Labrador, Dr. Schiff has organized an Aboriginal Ethics Workshop through the Atlantic Aboriginal Health Research Program (There are plans for another workshop in the fall of 2013 to engage researchers in a discussion about Aboriginal health research challenges and priorities in Labrador.

Funded by the Torngat Secretariat, Dr. Schiff recently completed a study on Traditional Plant Use in Labrador. The report will be available on the Labrador Institute website within the next few weeks. “It is a preliminary investigation and points to many other potential avenues for research on this topic,” she explained.

Dr. Schiff was also the principal investigator in a study on housing and homelessness in Happy Valley-Goose Bay, funded by the Social Sciences and Humanities Research Council.

With Dr. Martha Traverso-Yépez, Canada Research Chair in Health Promotion and Community Development, Dr. Schiff is involved in a project on Experiential Learning Strategies in the Health Sciences for Developing Humanistic Skills, funded by Memorial’s Office of the Provost and Vice-President (Academic).

Another current project, funded by Rural Secretariat, is focused on developing a resiliency index for the Upper Lake Melville region in the context of the Lower Churchill hydroelectric project.

Dr. Schiff is also a collaborator for the project Spaces and places: Understanding sense of belonging and cultural engagement among Aboriginal youth. With Dr. Atanu Sarkar, assistant professor of environmental and occupational health, she is co-principal investigator in a study of radiation exposure in Makkovik (see page 12).

“All these research projects have been community driven,” said Dr. Schiff. “I’m getting to the stage now where the work I’m doing is getting meaningful results for communities in Labrador.”
Medical students learn about Aboriginal culture

THROUGH THE EFFORTS of the Aboriginal Health Initiative, medical students at Memorial are learning more about cultural safety and the needs of Aboriginal communities. On Dec. 5, 2012, Dr. Stanley Vollant, an Innu oncologist and surgeon from Pessamit on the Quebec North Shore, spoke on Building Partnerships in Healing.

Dr. Vollant explained to Memorial’s first-year medical class that cultural safety is a concept developed in New Zealand by nurses working with Māori that moves beyond the traditional concept of cultural sensitivity in that it analyzes power imbalances in society, as well as political ideals of self-determination and de-colonization. He said that colonization and residential schools are two commonalities between the Aboriginal people of Australia and New Zealand, and those in North America. “Both groups have the same sort of problems, such as high suicide rates.”

In 1920 it became mandatory in Canada for Aboriginal youth between the ages of seven and 15 to attend a residential school. By 1931 there were 80 residential schools in Canada, and up to 1969 these were organized and administered by government and churches. The last residential school in Canada closed in 1996; nearly 150,000 First Nation and Inuit youth went through that system.

Dr. Vollant described the residential school system as “organized violence” in which students were not allowed to speak their own language. “The objective was the assimilation of First Nation and Inuit youth; the painful heritage of the residential school had a transgenerational effect on many. This dark part of our recent history is not well known by the majority of Canadians, but has resurfaced since the national excuses given by the prime minister on June 11, 2008.”

Dr. Vollant said physicians need to know that many Aboriginal children were abused in many ways – physically, sexually, culturally, psychologically and spiritually. “As a result we have problems with drugs, alcohol and substance abuse among our young. Because of the residential school system, there was a loss of contact with family and family values and destruction of social and family networks.”

Dr. Vollant’s visit to Memorial was co-sponsored by the Division of Community Health and Humanities, the Clinical Skills Program and the Aboriginal Health Initiative. The goal of the Aboriginal Health Initiative (AHI), funded primarily by the Faculty of Medicine, is to recruit students into medical school from First Nation, Inuit and Métis communities in Newfoundland and Labrador.

Dr. Vollant will be returning to Memorial for a longer visit in early December 2013. “His first visit struck a chord with many of the first-year medical students. We want to build on that impact by widening the number of students and faculty who will have the opportunity to hear his message,” said Dr. Carolyn Sturge Sparkes, AHI co-ordinator.

Since it started in 2009, the AHI has made significant progress in supporting the recruitment and success of Aboriginal students in Memorial’s medical school. Two Aboriginal students were accepted in 2011, and six in 2012. One of the recruitment pillars in place is a Pre-Med Summer Institute, first offered in 2011 at the Labrador Health Centre in Happy Valley-Goose Bay. Although this was not offered in 2012, funds from the Atlantic Policy Congress of First Nations Secretariat and Nunatsiavut will support it in 2013.

Other recruitment pillars in place include school visits to Aboriginal communities throughout the province, a Pre-Med Orientation/Mentoring program, and the MCAT Prep Awards whereby funding is available for Aboriginal students to prepare to write the Medical College Admission Test (MCAT). A Medical Mentorship@MUN program matches Aboriginal medical students with faculty and postgraduates through mentorship clusters with one mentor and four students. Efforts are being made to offer scholarships and awards for first-year and possible residency-year Aboriginal students; and a student-run association called the Med Friendship Circle is being organized to bring Aboriginal and non-Aboriginal medical students together with the goal of building bridges of understanding.

The renewed undergraduate medical curriculum will include case study and problem-based clinical situations including a focus on Aboriginal peoples and their wellbeing. For further information about the Aboriginal Health Initiative, visit www.med.mun.ca/AHI/Initiative.aspx.

An all-women’s drum group, started as part of the Native Friendship Centre, performed for medical students following Dr. Stanley Vollant’s talk. From left: Jenell Duval, Erin Piatt and Danielle Benoit.
Taking the lead in Atlantic Canada

WITH A CORE GROUP of health ethicists and a strong history of involvement in the health care system, the Division of Community Health and Humanities will offer a master’s degree in health ethics starting in the fall of 2013, the only such program offered in Atlantic Canada.

Dr. Daryl Pullman has seen ethics education and services grow into a vibrant and dynamic contribution to the Faculty of Medicine and the province’s health care system since he started at Memorial in 1998. He said from the beginning there was strong support from Eastern Health (then the Health Care Corporation of St. John’s). “We had tremendous support to make ethics a key component of corporate structure and all of our ethics faculty have full-time academic appointments as well as clinical appointments,” he said.

In addition to Dr. Pullman, the health ethics group in the Faculty of Medicine now includes Dr. Fern Brunger, a medical anthropologist and co-chair of the provincial Health Research Ethics Board, and philosophers Dr. Chris Kaposy and Dr. Jennifer Flynn. The group also has strong ties with Dr. Rick Singleton, Pastoral Care and Ethics with Eastern Health, and with Dr. Andrew Latus, formerly a Community Health and Humanities faculty member who is now in practice as a psychiatrist.

The ethics team provides ethics consults, policy development and ethics education for the province through the Provincial Health Ethics Network of Newfoundland and Labrador. Dr. Kaposy said the group provides an essential service for the province. “In 2011-12 we did about 100 ethics consultations, each involving an ethicist and facilitator.”

Dr. Kaposy has guided the process of having the master’s in health ethics approved. “One of the exciting parts of this new program is that we will have a practicum component where students will be placed and have the opportunity to have hands on experience.”

The practicums will be organized through Pastoral Care and Ethics at Eastern Health so students can participate in practical ethics activities. Dr. Singleton said some possible situations involving an ethics consultation might involve feeding for patients with a swallowing problem from a stroke or other condition. “The medical recommendation might be to feed pureed food or by tube. But if the person requests regular food, there’s an ethical question.”

Another current ethics issue involves seasonal influenza and mandatory vaccination for health care workers. Dr. Singleton said some issues require system-wide guidelines – for example a framework has been developed for decision making in the case of drug shortages.

“There’s a strong partnership between Eastern Health and Community Health and Humanities,” said Dr. Singleton. “The arrangement gives us the benefit of having professional ethicists who participate in our ethics program.”

Dr. Kaposy said the group is looking forward to the new master’s program. “We do a lot of teaching but not a lot of graduate teaching, so this is our opportunity to teach at the graduate level.” Enrolment will build up to a maximum of 10 students, many of whom may already be working in health care or participating in committees associated with the Provincial Health Ethics Network.

From left: Drs. Chris Kaposy, Rick Singleton and Daryl Pullman.
Scholarship and Awards Luncheon 2012

IN NOVEMBER the annual Scholarship and Awards Luncheon for first- and second-year medical students was held in the Junior Common Room at Gushue Hall. A total of 33 awards were presented, including two outstanding teacher awards.

Dean James Rourke brought greetings to donors and recipients and briefly described the upcoming expansion of the medical education program and research growth. “It's an honour and a privilege to have donors and students together to mingle and get to know each other,” he said.

Each academic year, first- and second-year medical students select the person they consider to be the most outstanding teacher in that year. The Class of 2015 selected Dr. John McLean, professor of neuroscience and anatomy, for the Outstanding Teacher Award. The Class of 2014 selected Dr. Susan MacDonald, associate professor, medicine and family medicine, for the Outstanding Teacher Award.

For a full list of awards and photos please visit http://bit.ly/scholarshipluncheon2012

Kathryn Woodman, right, received the Ryan Family Scholarship, presented by Sister Josephine Kennedy. This scholarship, valued at $1,000, was established by Mrs. Helen Ryan in memory of family members, Mary B.H., Thomas Sr., Thomas Jr. and Mary. The selection is based on scholarship standing in undergraduate medical studies.

Loni Slade, centre, received the Dr. Peter and Mrs. Deborah Collingwood Scholarship in Medicine, presented by Dr. Peter Collingwood, left and Deborah (Templeton) Collingwood. This scholarship has been established through a generous gift from Peter and Deborah Collingwood.

Dr. John McLean, left, was presented with the Class of 2015 Outstanding Teacher Award by Dean James Rourke.

Dr. Susan MacDonald was presented with the Class of 2014 Outstanding Teacher Award by Dean James Rourke.
New strengths in program evaluation at MESC

CATHY PEYTON is the newest member of the Medical Education Scholarship Centre (MESC) in the role of educational specialist in program evaluation. In her job, she provides administrative educational support and acts as a resource to faculty in the development and interpretation of program evaluation reports, methods and tools.

“At MESC our mandate is to support the undergraduate medical curriculum, postgraduate medical education, residents, students and other professional staff,” explained Ms. Peyton. “We look at evaluation in terms of courses and we look at national exams. Generally speaking, program evaluation assesses the degree to which medical education program goals and objectives have been achieved.”

All course evaluations in the undergraduate medical curriculum are completed online through the One45 Student Information System. “I’m responsible for making sure courses are evaluated, results summarized and distributed to various stakeholders,” said Ms. Peyton. “We also look for trends and patterns.”

As part of her job, Ms. Peyton is a member of the UGME Program Evaluation Subcommittee. “Anomalies and red flags in evaluations are discussed. Most of our courses received satisfactory evaluations, although in the past issues have been identified and resolved.”

Although Ms. Peyton only joined MESC in May of 2012, she has been with the medical school since 2003, serving for 10 years as the program manager of the Atlantic Regional Training Centre (ARTC) in Applied Health Services Research.

“My job with ARTC was more administrative. This job at MESC has been a real challenge, but it is exciting and the staff here work well as a team. We have great support from the administration and we also interact with other medical schools.”

For further information on program evaluation, contact Cathy Peyton at 709 777 6729 or cpeyton@mun.ca.

New Faculty

DR. JENNIFER FLYNN
ASSISTANT PROFESSOR OF MEDICAL ETHICS

Dr. Jennifer Flynn’s appointment brings greater strength to a core group of philosophers and health ethicists in the Faculty of Medicine. With Drs. Daryl Pullman, Fern Brunger and Chris Kaposy, she will be a key part of the teaching strength in the new master’s in health ethics, which will be offered starting in September 2013.

Dr. Flynn’s interests are moral philosophy and bioethics. In bioethics, she is concerned with both philosophical bioethics and clinical bioethics. In particular she works on reproductive ethics, pediatric bioethics, and the philosophical underpinnings of bioethics. She is also cross-appointed to the Department of Philosophy.

Dr. Flynn earned her PhD in philosophy at the University of Virginia, where she held a doctoral fellowship from the Social Sciences and Humanities Research Council of Canada, a Dissertation Year Fellowship, and research and teaching fellowships through the Department of Philosophy and the Program in Bioethics. She has worked at Memorial University, both in the Department of Philosophy and the Faculty of Medicine. During the 2009-2010 academic year, she was an Academic Fellow at the University of Toronto’s Joint Centre for Bioethics, where she is now a member. During 2010-11, she was a Visiting Fellow at Western University’s Rotman Institute of Philosophy.

At Memorial, Dr. Flynn hopes to help strengthen the developing ties between the Faculty of Medicine and the Faculty of Arts, and sees great potential for the cultivation of a rich, interdisciplinary bioethics community at Memorial. Her teaching strengths are in bioethics and moral philosophy; she has designed and taught courses in, among other topics, reproductive ethics, metaethics, philosophy and literature, and the ethics of genetic research.

This coming fall term, Dr. Flynn will be teaching a graduate seminar called Health Ethics Theory, which will examine the philosophical and otherwise theoretical underpinning of applied (medical) ethics.
Research study will look at improving health care services in personal care homes

THE PROPORTION of seniors in the population of Newfoundland and Labrador is increasing. Provincial government population projections estimate that by 2025 close to one quarter of the province’s population will be aged 65 and over, with a growing number of individuals over 75.

Dr. Gary Tarrant, an associate professor of family medicine based at the Ross Family Medicine Centre, is concerned about the increasing need for long term care facilities for seniors. With the help of $20,000 funding from the Medical Research Endowment Foundation (MRF), he is heading up a study through the Primary Healthcare Research Unit (PHRU) to explore how health care services in personal care homes in Newfoundland and Labrador could be optimized by better co-ordination and integration of the key stakeholders.

“This is the first step of a research program aimed at understanding the current state of health care services in personal care homes and how health care services for this important sector can be improved,” said Dr. Tarrant.

In Newfoundland and Labrador, the Department of Health and Community Services determines overall funding for home care in the province and allocates resources among the various regions. The department is also responsible for establishing strategic directions and policies, and for monitoring programs. Day-to-day program management and responsibility for service delivery are delegated to the Regional Health Authorities.

“There’s very little research on personal care homes,” said Dr. Tarrant. “Personal care homes are not nursing homes and do not provide the same range of medical care as nursing homes – residents depend a lot more on their own family physicians for their ongoing health care needs.”

The Department of Health and Community Services does assign to each personal care home social workers, community health nurses and other allied health professionals, who currently work with residents’ family physicians in an informal arrangement. Dr. Tarrant’s group will be investigating if there can be a more optimal co-ordination among the different stakeholders to improve health care delivery to the residents of personal care homes.

The data for this research study on personal care homes will be collected by interviews with key stakeholders, focus groups with physicians, and case studies. Interviews will be done with personal care home owners or managers in both urban and rural settings, clinical staff with Eastern Health assigned to the Personal Care Home Program, and officials within the Department of Health and Community Services responsible for overseeing residential care homes.

“The interviews will focus on issues such as the barriers or enablers, including policies or practice, that contribute to or inhibit the co-ordination of health care in personal care homes,” said Dr. Tarrant. “We want to find out how care providers or regulators provide input into policy decisions affecting personal care homes and how care providers, in particular family physicians, can improve linkages with social workers, community health nurses and other allied health professionals that provide health care services for the homes.”

The goal, said Dr. Tarrant, is to find how a co-ordinated service might improve the quality of health care for seniors living in personal care homes and reduce health care costs. “We also want to explore policy options for improving the co-ordination of health care in personal care homes.”

Dr. Tarrant has provided patient care in personal care homes for 27 years, and currently provides medical care for three personal care homes in the St. John’s area. As principal investigator of this project he will work with Dr. Marshall Godwin, director of the Primary Healthcare Research Unit, Dr. Victor Maddalena, assistant professor in health policy and health service delivery, Dr. Shabnam Aghari, an epidemiologist and assistant professor of family medicine, Janice Dalton, regional manager of the Personal Care Home Program for Eastern Health, and Andrea Pike, research manager for PHRU.
Accelerating cancer gene discovery through Next Generation Sequencing technology

ALTHOUGH RARE, juvenile-onset granulosa cell tumours can occur in the ovary of children and teens, posing a malignant health risk with associated loss of a reproductive organ in very young patients. Dr. Ann Dorward, Canada Research Chair in Molecular Signaling in Human Health and Disease, will use a $20,000 development grant from the Medical Research Endowment Fund to employ Next Generation Sequencing (NGS) technology to develop a comprehensive list of genetic variations unique to a particular mouse strain that develops spontaneous ovarian granulosa cell tumours, as a model for the human cases.

Dr. Dorward sees the value of mouse models to explore genetic determinants of cancer risk in people, particularly if the human cancer is rare in the population. The key to this current research project is the use of NGS technology applied to the mouse model, where the genetic determinants are already mapped to the mouse genome.

“Our genomic sequencing target represents a combined 3.7 million bases of DNA based on three distinct, mapped regions of interest – this represents only 0.1 per cent of 3.4 billion bases of mouse genomic DNA. Traditionally we mapped regions of DNA and examined small regions for candidate genes in a serial fashion, but now we capture and sequence the genetic information all at once with NGS technology. What took years can now take just a few weeks.”

To achieve the custom sequencing goals of this project, Dr. Dorward has enlisted the expertise of the scientific services and collaborators at The Jackson Laboratory in Bar Harbour, Maine, where she trained as a postdoctoral fellow.

“Our own genetics researchers at Memorial are moving towards this new technology, but right now I am happy to work with researchers at The Jackson Laboratory who have the NGS expertise, in order to familiarize myself with the capability and informatics challenges of this technology.”

The information obtained will help develop a comprehensive list of all the genetic variations present that contribute to early-onset granulosa cell tumour development in female mice. Dr. Dorward said that based on endocrinological, histological and malignant criteria, these mouse tumours have strong parallels with juvenile-onset granulosa cell tumours that appear in infants and young girls, supporting the translational potential of the genetic findings.

Dr. Dorward has established a collaborative agreement with Dr. David Huntsman of the BC Cancer Agency to expedite the translation of the findings from this project to human cases.

“The ultimate goal is prevention or early detection of these tumours to prolong life, preserve fertility and ensure the long term ovarian and endocrine health of young women.”

The research will also be of benefit to graduate research in Dr. Dorward’s lab. Fine mapping has already resolved the genetic regions of interest to a defined region of mouse chromosome 4 and two distinct regions on chromosome X. Acquisition of the full genomic sequence for the mapped regions will accelerate the PhD research for Kerri Smith and a master’s project for Zoha Rabie.

Dr. Dorward said she is very appreciative of the $20,000 MRF funding and is hoping to use the results of this project to define candidate tumour susceptibility genes for inclusion in a comprehensive Canadian Institutes of Health Research operating grant related to granulosa cell ovarian tumourigenesis.
From the basics of biomaterials to building an artificial cornea

Researchers in biomedical sciences, physics and chemistry are working together to develop the basis for an artificial cornea. From left: Drs. Hélène Paradis, Erika Merschrod, Kris Poduska and Bob Gendron.

cancers, they are working with Dr. Kris Poduska, associate professor of experimental materials physics and chemistry, and Dr. Erika Merschrod, associate professor of chemistry, to develop an artificial cornea.

Their work recently received a $20,000 award from the Medical Research Endowment Fund (MRF) for the project titled A Novel Electrochemically Engineered Collagen Scaffold for Corneal Reconstruction.

“Kris and Erika are interested in materials and advanced engineering, particularly in analyzing collagen, which is one of the main components of connective tissue,” said Dr. Gendron. “They have figured out a way to marry concepts in physics and chemistry to quickly produce a collagen matrix which has all kinds of applications, especially in artificial tissues.”

This research was recently published in Macromolecular Bioscience in a paper titled Controlled Cell Proliferation on an Electrochemically Engineered Collagen Scaffold. The paper describes cell-culture studies showing that electrochemically prepared collagen matrices display high optical transparency, encourage cell attachment near the surface, and appear to stimulate normal signaling pathways in cornea specific cells.

“Overall, the evidence presented in this paper is an important step towards better engineering of artificial tissues,” said Dr. Gendron.

With the funding from the MRF, the group is working to construct a prototype multi-layered artificial cornea. Eventually they hope to move into a commercial application with the help of federal funding and industry partnerships.

Dr. Gendron noted that there is a critical shortage of corneas available for transplant. The corneas available come from people’s posthumous donation of their eye tissues. With an aging population more corneas are needed, while at the same time the increasing use of laser treatment on eyes means that fewer corneas are available.

“There is a real need to develop an artificial cornea, and the advantage is that an artificial cornea would not have immune issues and would not be prone to rejection,” said Dr. Gendron.
Diet high in processed meat associated with poor survival from colorectal cancer

RESEARCH ON colorectal cancer and dietary patterns shows that a diet high in processed meats is associated with worsened disease-free survival. The research was carried out by an interdisciplinary research team at Memorial University and the University of Toronto.

Dr. Peter Wang, professor of epidemiology in the Division of Community Health and Humanities, is the principal investigator of this study with graduate students Yun Zhu and Hao Wu, master’s students and recipients of fellowships from the Newfoundland and Labrador Centre for Applied Health Research.

The paper, titled Dietary Patterns and Colorectal Cancer and Survival, was published recently in *BMJ Open*.

“Dietary patterns are associated with colorectal cancer, but little is known about their roles on survival after a diagnosis of colorectal cancer,” explained Dr. Wang.

The study showed that disease-free survival among colorectal cancer patients was significantly worsened among patients with a high processed meat dietary pattern in terms of higher risk of tumour recurrence, metastasis and death.

Colorectal cancer is the second leading cause of cancer death in Canada and the highest incidence of colorectal cancer and mortality rates are in Newfoundland and Labrador. Dr. Wang noted that the diet in Newfoundland and Labrador consists of a large proportion of processed meat, red meat and insufficient vegetables.

The 529 patients in this study were enrolled through the Newfoundland Familial Colorectal Cancer Registry and diet was assessed using a food frequency questionnaire which included 170 foods, beverages and supplements, plus foods such as salted/pickled meat and smoked/pickled fish.

Three distinct dietary patterns – processed meat, prudent vegetable and high sugar – were identified. “We found that a high intake of processed meat, red meat, fish and processed fish is associated with decreased disease-free survival for patients who had tumours located in the colon and not the rectum,” said Dr. Wang.

The mechanisms explaining the impact of red and processed meat on colorectal cancer mortality are still unclear, said Dr. Wang. “However strong carcinogens such as N-nitroso compounds and probably carcinogenic mutagens like heterocyclic amines and polycyclic aromatic hydrocarbons, which have been suggested as significant contributors for the development of colorectal cancer, are found in smoked, fried, or high-temperature cooked meat. Our findings between dietary patterns and colorectal cancer survival may also be explained by the impact of dietary patterns on gut microflora on health outcomes.”

This study showed that the influence of processed meat pattern on survival was evident among women rather than men. Dr. Wang noted that the BRAF gene mutation in women is found to be significantly associated with poor colorectal cancer survival, but further research is needed in this area.
Study shows birth by C-section may increase risk for Type 1 diabetes in children

RESULTS OF A STUDY conducted by researchers in the Faculty of Medicine and the Newfoundland and Labrador Centre for Health Information indicate that delivery by caesarean section is associated with childhood onset of Type 1 diabetes in Newfoundland and Labrador.

Dr. Leigh Anne Newhook, Discipline of Pediatrics, teamed up with researchers Jennifer Phillips, Nicole Gill and Kohkan Sikdar from Newfoundland and Labrador Centre for Health Information (NLCHI), and Sharon Penney with the Janeway Pediatric Research Unit, to conduct this study, which was supported by a $30,000 Cox Award in 2009 from the Medical Research Endowment Fund (MRF). The results were published in the Journal of Environmental and Public Health in 2012.

Newfoundland and Labrador has one of the highest rates of Type 1 diabetes worldwide. Dr. Newhook said findings of this study indicate that birth by C-section was a significant risk factor for later development of childhood Type 1 diabetes. She said theories of why method of birth may be important include the role of early colonization of bacteria in the baby’s gut acquired during the birthing process and early development of the immune system.

“Studies have shown a difference between the compositions of gut microbiota in vaginally delivered children and those delivered by C-section,” she explained. “Another possible explanation is related to the hygiene hypothesis which proposes that the risk of diabetes may be increased when children are not exposed to infections early in life – children delivered by C-section have decreased neonatal infections compared to children born vaginally.”

Newfoundland and Labrador has a high rate of birth by C-section as compared to other regions in Canada. The provincial rate of births by C-section was 30.9 per cent in 2005-2006 versus the Canadian rate of 26.3 per cent. The rates of C-section increased in this province to 33 per cent in 2010.

Birth weight and gestational age were not found to be associated with risk of Type 1 diabetes in this study.

Cases of diabetes were identified using the Newfoundland and Labrador Diabetes Database for childhood diabetes, maintained by the Janeway Pediatric Research Unit. This database contains data on cases of Type 1 diabetes in children diagnosed from 1987 to present.

The Live Birth System, an administrative database maintained by the NLCHI and containing data on all live births in Newfoundland and Labrador from 1992 to present, was used to obtain demographic data and clinical factors related to the risk factors of interest related to the pregnancy and birth.

Members of the Janeway Pediatric Diabetes Research Team have been studying the incidence of Type 1 diabetes in children in the province over the past two decades. Recently there has been an updated analysis on the population of children 0-14 years with Type 1 diabetes from Newfoundland and Labrador, confirming a very high and increasing incidence over a 24-year study period. The incidence from 1987 to 2010 is 37.7/100,000, one of the highest reported worldwide. The incidence from 2007-2010 was 49.9/100,000. The results from this research continue to show a very high and increasing incidence and there continues to be a male preponderance in the 0-4 age group.

Dr. Newhook said the team hopes to research the association of Type 1 diabetes and birth by C-section in greater detail to delineate if it is the mode of delivery that is important or other perinatal factors that led to C-section delivery. The team has been recently awarded a project grant from the Newfoundland and Labrador Centre for Applied Health Research to continue the research.
Medical school earns national recognition for excellence in producing rural doctors

THE FACULTY OF MEDICINE at Memorial has been honoured by the Society of Rural Physicians of Canada (SRPC) with the Keith Award, given annually to the Canadian postgraduate medical program which has excelled in producing rural doctors.

This year’s Keith Award looked at the largest number of graduates practicing in rural areas 10 years after graduation. Family medicine residents were identified through the Canadian Post-MD Educational Registry and practice location was taken from the Canadian Medical Association database 10 years later.

“On behalf of the people of rural Canada, I thank you for creating an excellent program which is producing much-needed rural doctors and sets a standard that I hope other programs will aspire to,” wrote Dr. John Wootton, chair of the SRPC Nominations and Awards Committee, in a letter to Dr. James Rourke, dean of medicine at Memorial.

“This is an outcome that really matters,” said Dr. Rourke, who received a Rural Leadership Award from the SRPC in 2009 in recognition of his outstanding leadership in rural medicine and education. “It reflects on our commitment to produce the kind of doctors we need for Newfoundland and Labrador and across Canada. This is the equivalent of a gold medal for medical schools from the SRPC.”

Susan Sullivan, minister of health and community services, congratulated the Faculty of Medicine for receiving the Keith Award in a statement given in the House of Assembly on March 7.

“This is the fourth time Memorial University has received the society’s prestigious Keith Award since it was introduced in 2000. Memorial also received the society’s rural education award in 2009 in recognition for excellence in producing MD graduates headed to a career in rural medicine.
Graduate student publications

In this issue of MUNMED we continue our feature on some of the publications of our graduate students.

PEYVAND AMINI, a M.Sc. student supervised by Dr. Guang Sun, is first author on the paper Serum Acylated Ghrelin Is Negatively Correlated with the Insulin Resistance in the CODING study, published in *PLOS One*. Ms. Amini explained that ghrelin is a gut hormone with potentially many functions. “Its main known function is to increase appetite especially before each meal. Acute administration of ghrelin has been reported to decrease insulin secretion in both animal models and human volunteers. Therefore, ghrelin is likely involved in insulin metabolism and the development of diabetes.”

The data regarding long-term effects of ghrelin in this aspect is very limited. In this study, the relationship between circulating ghrelin level and insulin resistance in a total of 2,082 volunteers of the CODING study (Complex Diseases in the Newfoundland Population: Environment and Genetics) was investigated. The CODING study is the largest cohort study of its kind in Canada which is funded by multiple CIHR operating grants and established by Dr. Sun’s research team in the past 10 years. This study discovered that high plasma ghrelin level is associated with lower fasting insulin level and insulin resistance in the general Newfoundland population. This is the first large population-based study with strong evidence revealing a different facet of ghrelin function in the development of diabetes.

In addition to Ms. Amini, the authors of this paper are Danny Wadden, Farrell Cahill, Edward Randell, Sudesh Vasdev, Xihua Chen, Wayne Gulliver, Weizhen Zhang, Hongwei Zhang, Yanqing Yi and Guang Sun.

DANNY WADDEN, an M.Sc. student supervised by Dr. Guang Sun, is first author on the paper Serum Acylated Ghrelin Concentrations in Response to Short-Term Overfeeding in Normal Weight, Overweight, and Obese Men, published in *PLOS One*. “Hunger and satiety are regulated by the homeostatic system – in the same manner that eating fewer calories than you need results in hunger, overeating should result in long-lasting fullness or satiety,” explained Mr. Wadden. “One would expect that overeating would suppress your natural hunger hormone ghrelin but this paper suggests that the opposite may be true.”

In this study, 68 healthy young men were overfed 70 per cent more calories than required for one week, which, contrary to expectations, lead to a significant increase in serum levels of acylated ghrelin. Although there were no significant differences in fasting acylated ghrelin between normal weight, overweight and obese men at baseline, there was a negative correlation between acylated ghrelin and changes in weight and BMI in overweight men but a positive correlation between these parameters in the obese group. “While these are interesting and unexpected observations, their physiological significance is not clear,” said Mr. Wadden. “Perhaps the increased ghrelin levels are merely a compensatory response to increases in insulin resistance.

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seen with overfeeding – this would mean that the increased ghrelin levels do not necessarily translate into greater hunger or more food intake. Measures of hunger or satiety were not reported in this paper, nevertheless, given the seemingly disparate relationships between ghrelin levels and changes in body weight, further experiments that take a closer look at some of the determinants of this relationship certainly appear warranted.”

The other authors on this paper are Farrell Cahill, Amini Peyvand, Edward Randell, Sudesh Vasdev, Yanqing Yi, Weizhen Zhang W and Guang Sun.

GEOFF WARDEN, PhD candidate and second-year medical student at Memorial University, is first author on a paper recently published by Clinical Genetics titled A population-based study of Hereditary Non-Polyposis Colorectal Cancer: evidence of pathologic and genetic heterogeneity. His research was supervised by Drs. Patrick Parfrey, Jane Green and Roger Green, and included data obtained by the Interdisciplinary Research Team in Colorectal Cancer.

Mr. Warden studied 37 families with Lynch Syndrome, a condition caused by autosomal dominant inheritance of mutations in mismatch repair genes, and 29 families without Lynch Syndrome, who fulfilled the Amsterdam criteria (consistent with autosomal dominant inheritance of colorectal cancer) but of unknown genetic etiology.

Geographic clustering of Lynch Syndrome caused by three different founder mutations in the MSH2 gene were observed, and a further nine unique mutations in four mismatch repair genes were identified in single families distributed in different geographic isolates. The geographic distribution of non-Lynch Syndrome was similar to Lynch Syndrome. The coefficient of relatedness using genotype data was significantly higher for non-Lynch Syndrome than for all colorectal cancer, indicating non-LS families were more closely related, however genealogic investigation using the KINNECT database at the Population Therapeutics Research Group and extensive traditional archival methods undertaken by David Harnett (a fourth-year medical student) failed to connect non-Lynch families. Furthermore in some geographic clusters pathologic heterogeneity of cancer was observed.

Mr. Warden said the study concluded that non-Lynch Syndrome was a heterogenous disorder with different pathologic pathways, and that the geographic distribution was consistent with multiple different mutations in unknown colorectal cancer susceptibility gene(s).
Immunology and infectious disease graduate program prizes

THE 23RD ANNUAL Immunology and Infectious Disease Graduate Student Research Symposium was held at the GEO Centre Nov. 30, 2012.

The following prizes are awarded each year to the graduate students delivering the best research presentations. The prizes are the Best Overall Presentation (PhD or M.Sc. level) of $200, the Best M.Sc. Student Award of $100, and the Best PhD Student Award of $100.

Heidi Morris, supervised by Dr. Rod Russell, won Best Overall Presentation. Kayla Holder, supervised by Drs. Michael Grant and Russell, won Best M.Sc. Student Award. Justin King, supervised by Dr. Mani Larijani, won Best PhD Student Award. From left: Dr. Kensuke Hirasawa, symposium organizer, Justin King, Kayla Holder and Heidi Morris.

Student presenters at this year’s Immunology and Infectious Disease Graduate Student Research Symposium were (from left): Heidi Morris, Kayla Holder, Justin King, Nathan Taylor, Jessica Benkaroun, Atefeh Ghorbani and Ali Atoom. Unavailable for photo: Mussa Suliman.
Spotlight on the Cancer and Development Graduate Research Symposium

**FACULTY MEMBERS** of the Cancer and Development group hosted the annual Graduate Research Symposium at the Fluvarium on June 15, 2012, followed by an evening awards reception at The Rooms. This was a special occasion for 17 students in the Cancer and Development graduate program, who had the opportunity to present their independent research findings to peers, faculty and guests, and their chance to win one of the *Mary* program prizes for best oral presentation – the Mary O’Neill Award (M.Sc.) or the Mary Pater Award (PhD) – or a poster prize.

Kindra Grozinger, supervised by Drs. Robert Gendron and Hélène Paradis, received the Mary O’Neill Award. Kerri Smith, supervised by Dr. Ann Dorward, received the Mary Pater Award. Noelle Marsh and Justin Pater, both supervised by Dr. Daniel MacPhee, were the M.Sc. poster prize winners.

“All the students deserve our congratulations for the excellent quality of their presentations,” said Dr. Dorward, who helped to organize the symposium. In addition to Drs. Paradis, Gendron and Dorward, faculty members that have supervised or co-supervised students in the Cancer and Development graduate program include Drs. Christopher Kovacs, Jules Doré, Edward Kendall, Kensuke Hirasawa, Guang Sun, Jon Church, Laura Gillespie, Kenneth Kao, John Thoms, Cathy Popadiuk and Gary Paterno.

Highlights of the 2012 Cancer and Development Graduate Research Symposium included research seminars by visiting speakers Dr. Philippe Gros, McGill University, and Dr. Pamela Goodwin, University of Toronto, who described the role of genetics and metabolism in the control of cancer progression.

The 2012 symposium costs were supported by the Discipline of Oncology and the Cancer and Development Visiting Speakers Program through the Office of Research and Graduate Studies, Faculty of Medicine.

“The year 2012 was a significant anniversary year for the symposium,” said Dr. Dorward. “Twenty-five years ago, the first Cancer Research Symposium was hosted by faculty members in medicine. Subsequently, the symposia were organized with increasing frequency and became an annual event by the mid-2000s, based on growing enrolment in the graduate program.”

The 2013 Cancer and Development Graduate Research Symposium is scheduled for June 7, 2013, at Gushue Hall, with visiting speakers Dr. Peter Lansdorp, University of British Columbia, and Dr. George Calin, University of Texas MD Anderson Cancer Center.

Continued on next page.
Dr. Dorward said the next milestone for the Cancer and Development group will be the anniversary of the Terry Fox Cancer Research Lab, which opened on Aug. 15, 1989 and is located on the third floor of the HSC. The Terry Fox lab remains an active research environment for graduate studies, in addition to research laboratories on the first, fourth and fifth floors. For more information about the Cancer and Development graduate program, visit: www.med.mun.ca/graduate/home.aspx.

Pathology Residents Research Day

THE ANNUAL Residents Research Day in Anatomic Pathology took place on Sept. 28, 2012. Special guest judge and workshop leader was Dr. Kelly Dakin Haché, assistant professor and a bone and soft tissue pathologist at Dalhousie University. Drs. Amrah Pirzada and Ed Randell, Discipline of Laboratory Medicine, also served as judges.

Dr. Terry Finch received the 2012 research award for his presentation Intraobserver agreement of immunohistochemical stain interpretation for conventional glass slides and digital whole slide images.

Other presentations by residents included Dr. Kathy Whelan, Dual ISH for Her2 gene amplification: Can it be Validated using Microarray Technique? Dr. Khisal Qureshi’s presentation was titled Checklist Based simulation training, a systematic and strategic approach for skills development and performance measurement tool for future pathologists. Dr. Robin Wirth presented on Implementation of Digital Pathology Images of Gynecological Pathology for Resident Trainees. Dr. Nizar Belgasem’s presentation was on surgical resection margins in needle wired localization breast lumpectomy specimens.

Terry Fox monument inspires hope

ON APRIL 12, 2012, the Terry Fox Memorial on Water Street was renewed to commemorate Mile Zero of the Marathon of Hope. The new monument by artist Luben Boykov depicts Terry in motion, with a larger than life sculpture exemplifying his strength and determination. The sculpture is set in a peaceful landscape setting near the entrance to St. John’s harbour where Terry first dipped his artificial leg in the ocean on April 12, 1980. The landscape artist was Frederick Hann. “This is an excellent spot for anyone – student, researcher, survivor or visitor – to reflect on Terry’s dream,” said Dr. Dorward.

Participants in the 2012 Residents Research Day in Anatomic Pathology included (front row, from left): Dr. Beverley Carter, research co-ordinator, Drs. Robin Wirth, Jennifer Power, Kathryn Whelan and Angela Tate. Second row, from left: Dr. Jane Barron, program director, Drs. Terry Finch, Khisa Qureshi, Jim Farrell, Adnan Karavelic and Nizar Belgasem. Third row, from left: Dr. Simon Avis, discipline chair, and Gregory Kalaydjian.
News from the Discipline of Emergency Medicine

The Discipline of Emergency Medicine has published its first newsletter, which reviews the year since the discipline was established. A new rural emergency room rotation has been developed by Dr. Greg Brown, residency program director, in collaboration with Drs. Campbell Locke and Steve Comdbden in Grand Falls. This initiative complements the delivery of ultrasound skills to rural areas and gives resident a solid experience in rural emergency medicine.

There has also been much work in Haiti from physicians in the discipline. Drs. Scott Wilson, Dick Barter, Catherine Seviour, Greg Brown and Gillian Sheppard have worked in Haiti with Team Broken Earth. Dr. Barter has also worked with Haiti Village Health, a community-based group founded by Dr. Tiffany Keenan (Class of 1998). Dr. Jill Allison, global health co-ordinator for the Faculty of Medicine, is the global health and research director for Haiti Village Health. Dr. Tia Renouf, chair of the Discipline of Emergency Medicine, also worked in Haiti with the Canadian group Short Term International Medical Missions Abroad.

With Haiti Village Health, Dr. Barter worked at the Sante Pou Yo clinic in Bod Me Limbe and did five outreach pediatric clinics in various locations within walking, driving or boating distance from Bod me Limbe.

“There is no doubt that the presence of frequent teams from North America in the region is leading to better education and comprehension by staff and villagers,” said Dr. Barter. “The fact that this initiative continues has ensured that there is a sustainability to the delivery of health care in this region. It is of great benefit to the people of the Bas Limbe region that when there is a crisis, such as a cholera outbreak, that medical teams can be ramped up and assist local providers.”

If you would like a copy of the Discipline of Emergency Medicine newsletter, please contact Joanne Doyle at jdoyle@mun.ca.

Memorial hosting CSEB National Student Conference

Memorial is hosting the 2013 Canadian Society for Epidemiology and Biostatistics (CSEB) National Student Conference June 22-23, 2013, and there are about 30 students involved in organizing this event.

This conference aims to promote student research in epidemiology, biostatistics and related fields of study. It provides the opportunity for students to showcase works that are in the proposal stage, in progress or completed. The conference also provides an avenue for students to network with one another, and with seasoned researchers, obtain information on career and educational opportunities, gain experience in participating in scientific conferences, and obtain training to further their knowledge and skills through events such as facilitated workshops. The objectives are to provide a platform for networking, knowledge translation, and professional development.

The intended audience includes students (undergraduate, graduate, and postgraduate) studying in epidemiology, biostatistics, and related fields, for example public health, population health, health promotion, health services and policy, health economics, global health, pharmacoepidemiology and health risk assessment. Student attendees will also have the chance to take part in enhanced research skill and career development workshops, and network with peers and senior researchers. Furthermore, selected abstracts may be published in peer-reviewed journals.

To register for the CSEB National Student Conference, visit www.studentcseb.ca.
Dr. Albert Cox, retired dean of medicine and vice-president (academic) at Memorial University, has been awarded the Queen's Diamond Jubilee Medal. The commemorative medal is a tangible way for Canada to honor significant contributions by Canadians. During his career, Dr. Cox held a variety of academic and professional positions at Memorial, including professor and chairman of medicine; associate dean for clinical affairs, Faculty of Medicine; dean of medicine; vice-president, (health sciences and professional schools), and vice-president (academic). He also held a number of hospital appointments including chairman of medicine, General Hospital; chief, Division of Cardiology, General Hospital; and, senior consultant (medicine) at all major hospitals in St. John's. Dr. Cox received his medal at a ceremony in October 2012 at Government House in British Columbia, where he currently resides.

Frank Fagan (BA'79, MBA'82) has been appointed by Prime Minister Stephen Harper as the next lieutenant governor of Newfoundland and Labrador, succeeding the Hon. John Crosbie. Mr. Fagan is well known as a volunteer, philanthropist and business leader. In 2006 he received the Alumni Lifetime Achievement Award from Memorial for his leadership and pioneering role in Canada's telecommunications industry. In 2008 he was named Philanthropist of the Year award by the Association of Fundraising Professionals; he was nominated by Memorial's Faculty of Medicine and the Health Care Foundation. The Frank and Pat Fagan Family Scholarship for Academic Excellence and Community Leadership is of particular importance to the Faculty of Medicine; established in 2008, the endowment provides for a $4,000 annual scholarship award, one of the largest in the Faculty of Medicine.

Andrew Dalton, left, (Class of 2015), received a copy of Gray's Anatomy from Dr. Peter Rockwood, who donated the book from his personal library. It is awarded to the student who received the highest mark in the laboratory component of the anatomy course; Mr. Dalton received 100 per cent. He has a keen interest in anatomy and worked in the anatomy lab over the summer.

Dr. Pauline Duke received the Geeta Gupta Equity and Diversity Award, presented during the College of Family Physicians of Canada (CFPC) Family Medicine Forum held in Toronto Nov. 15-17, 2012. This award is named in honour of Dr. Geeta Gupta, a family physician devoted to working with minority and ethnic communities to provide medical care, and for her commitment to continuity in family practice. Through the Gateway Project, Dr. Duke has shown leadership and advanced awareness working in the community to foster respect and understanding of the refugee population in St. John's.

Dr. Marshall Godwin was named Family Medicine Researcher of the Year by the College of Family Physicians of Canada (CFPC). The award was presented at the college's Research Day on Nov. 14, 2012 in Toronto. This award honours a family medicine researcher who has been a pivotal force in the definition, development, and dissemination of concepts central to the discipline of family medicine.

Dr. Pauline Duke, centre, was presented with the Geeta Gupta Equity and Diversity Award by Dr. Cal Gutkin, who at the time of this presentation was the executive director and CEO of the CFPC. Dr. Marie-Dominique Beaulieu, left, is the 2012-2013 president of the CFPC.

Dr. Marshall Godwin, centre, was presented with the Family Medicine Research of the Year award by Drs. Ralph Masi, left, and Jamie Boyd, 2012 recipient.
MUNMED news

DR. JACK HAND, who practised as a pediatric oncologist at the Janeway Hospital from 1997 until he passed away last June, received a Diamond Jubilee Medal Feb. 7, 2013. His colleagues describe him as a positive role model, loving and compassionate. His way with people was described as The Jack Factor. One of his patients summed up his contributions in one line, “Because he was, I am.” Dr. Hand’s wife, Tina, accepted the medal on his behalf.

DR. FRANCINE LEMIRE is the new executive director and CEO of the College of Family Physicians of Canada (CFPC). She succeeds Dr. Calvin Gutkin who, after a distinguished 17-year career with the CFPC, retired on Dec. 31, 2012. Dr. Lemire obtained her medical degree from McGill University and completed her family medicine residency at Memorial University. She practiced comprehensive family medicine for 23 years in Corner Brook, Newfoundland. Since joining the CFPC as a staff member in 2003, Dr. Lemire continued to practice family medicine on a part-time basis at the Toronto Western Family Health Team, at Toronto Western Hospital. She has academic appointments at the University of Toronto and Memorial University of Newfoundland.

Dr. Lemire has served as a member of the national executive committee of the CFPC and was national president of the college in 1998-1999. During the late 1980s she was president of the Newfoundland and Labrador College of Family Physicians. In 2003 she became director of membership with the CFPC, and in 2006 was promoted to associate executive director, professional affairs.

The late DR. IAN RUSTED will join the ranks of Canada’s distinguished medical heroes when he is inducted into the Canadian Medical Hall of Fame on May 2, 2013. He is the first native Newfoundlander to receive this distinction. Dr. Rusted is being recognized for establishing Newfoundland and Labrador’s only medical school, which to this day is a world leader in medical education. What makes this singular accomplishment so remarkable is the vision and perseverance it took to establish a medical school in a poor, underserved province at a time when all of Canada’s medical schools were located in large, resource-rich cities.

DR. GRACE L. KEENAN (Class of 1985), has been named one of Northern Virginia’s top internists in Northern Virginia Magazine’s Top Doctors 2013 issue, for the third consecutive year. Founder and CEO of Nova Medical and Urgent Care Center, Inc., Dr. Keenan is a business leader in Loudoun County. She is actively involved with the local community, serving on the Loudoun County Chamber of Commerce Board of Directors, the Loudoun County CEO Cabinet, and the Tigerlily Foundation Board of Directors. In addition, she is a member of 100 Women Strong, the Washington Spa Alliance, a clinical preceptor for George Mason and Marymount Universities, and an affiliate faculty for George Mason University. Dr. Keenan is board certified in internal medicine, integrative and holistic medicine and anti-aging medicine.

DR. PETER WANG, professor of epidemiology in the Faculty of Medicine, has been accepted as a Fellow in the American Academy of Health Behaviour. The mission of the academy is to serve as the research home for health behaviour scholars and researchers whose primary commitment is to excellence in research and the application of research to improve public health. The status of Fellow is conferred as an indication of distinction and is based solely on merit. Dr. Wang has distinguished himself by his academic record of publications, grants and presentations. He will be honoured at the opening ceremonies for the 2013 scientific meeting this March in Santa Fe, New Mexico.
THE MARK OF TIME
By Marshall Godwin

This novel traces the ancestry and generations of two fictional families, the Knights and the Johnsons. The families can be linked genetically, based on a birthmark, from the time of the Vikings in 1000 AD until today. *The Mark of Time* is a story of those two families, the lives of successive generations and their presumed relationship to the historical and disastrous events in Newfoundland's history.

The story begins in 1000 AD in the Viking community of Leifsbudir in what is now Newfoundland. This community does not survive due to attacks from other Vikings and the northern Skraelings or Inuit. The survivors take refuge with the Beothuk and become part of their family line. The most visible genetic heritage is a large port wine stain, originating with a Viking woman and her daughter.

The two families are linked from generation to generation by a common birthmark and a curse bestowed on one of the families by an old Beothuk woman in the 1600s. Because of this curse, when there is not a Bart and Elizabeth Knight living, then a series of catastrophes befall Newfoundland. The novel follows the Bart and Elizabeth Knights of subsequent generations and the disasters that occur when there is not a married couple by that name. Throughout this fictionalized story, major events in Newfoundland's history are interwoven.

Dr. Godwin is a professor of family medicine and director of the Primary Healthcare Research Unit. *The Mark of Time* is his second novel and the second in a trilogy involving the now extinct Beothuk race. The first novel, Belle Maro is also a sweeping historical novel but it concentrates on cross cultural contact and relations between the Beothuk and the European settlers who came to Newfoundland. Dr. Godwin said each novel can be read separately, but will be tied together in the third part of the trilogy.

*The Mark of Time* is published by DRC Publishing, St. John's.

FREE FLIGHT
By William Pryse-Phillips

It's not every day that a neurologist turns his hand to writing a children's book, but professor emeritus Dr. William Pryse-Phillips is the proud author of *Free Flight*, a Newfoundland-based book for children aged six to 10.

Dr. Pryse-Phillips' last book, *Companion to Clinical Neurology*, had over one million words; *Free Flight* comes in at 1,000 words with beautiful illustrations by C. Anne MacLeod.

*Free Flight* is a parable for children and their parents. It tells the story of Junior, a young gannet, who doesn't want to learn to fly, despite the urging of his parents. “I'm a land bird,” says Junior, perched on a ledge on a chimney of rock, high above the sea. “I could sit here forever.”

The mother and father gannet try to persuade him to try to fly, but Junior isn't moving. Until, that is, his cousin comes by and sings the praises of flight. “On a clear day there is sea forever,” says the cousin. “Sometimes the wind gets under your wings and lifts you up so you can just hang there and look down to where the roiling bubbles in the water tell you where your next meal is.”

Inspired by his cousin's words, Junior shuffled to the edge of his rock ledge, where a gust of air swirls around him and lifts him for an instant. He realizes that truly birds were born to fly and spreads his wings for the first time.

Dr. Pryse-Phillips said the gannet's story grew out of his own struggle of letting his three children leave home for careers in other parts of Canada. He said the story should appeal not only to children but to grandparents who have let their adult kids go and to parents who are preparing for an empty nest.

*Free Flight* is self-published through Friesen Press.
DR. KENNETH BRYSON ROBERTS, the first associate dean of medicine at Memorial, died in the United Kingdom on Dec. 17, 2012. A memorial service was held in Sheffield, U.K. on Jan. 4, 2013 and a service is planned at the Faculty of Medicine on June 20.

In 1968, Dr. Roberts was appointed the first associate dean of medicine and professor of physiology for the new medical school at Memorial University. In 1975 he resigned as associate dean of Basic Medical Sciences to devote himself to full-time teaching and research as professor of physiology. He became the first John Clinch Professor of History of Medicine in 1978. This position allowed him to collect and care for valuable medical texts, produce historical lectures, and teach in special history of medicine courses. He retired from this post in 1988.

Dr. Brian Payton, friend and colleague, described Dr. Roberts as a Renaissance man who knew science, literature and art. At Memorial, Dr. Roberts developed a “very imaginative curriculum, not crammed full of didactic learning,” said Dr. Payton in an article about Dr. Roberts’ life and contribution to medical education, written by Joan Sullivan and carried in the Globe and Mail Jan. 3, 2013.

Dr. Roberts held positions in a variety of medical organizations, serving on the executive committee of the Medical Research Council of Canada, as chairman of the Scientific Committee of the Canadian Heart Foundation and on the executive committee of the Canadian Society for the History of Medicine.

He was founding editor of the Canadian Bulletin of Medical History, and contributed to a number of books and published papers in pathology, physiology, molecular biology, the history of medicine and higher education. He co-authored a major work with the late Dr. J.D.W. Tomlinson titled The Fabric of the Body: European Traditions of Anatomical Illustration.

Dr. Roberts was born in London, England in 1923, and attended King’s College, University of London graduating (MB, BS, MRCS, LRCP) in 1945. He next attended Oxford University earning a BA (honours physiology) in 1948 and a D. Phil in Medicine, 1952. Before being recruited to Memorial University, he held academic appointments at the University of Edinburgh and University of London. Dr. Roberts was married to Ruth Mary (May) Catchpool (died Feb. 15, 2007) and they had four children: Daniel, Peter (died 2003), Alason, and Benjamin.

If you would like more information on the upcoming memorial service for Dr. Ken Roberts on June 20, contact Sharon Gray at sgray@mun.ca.

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If you have any questions, contact Lesley at 709 777 8924 or Lesley.wright@med.mun.ca.
DR. MERIDITH MARKS (Class of 1987) was an outstanding alumna who died in April 2012. In her memory, some members of her class with faculty members, family and schoolmates are working together to establish the Meridith Marks Mentorship to provide a keynote speaker and mentor for the annual Medical Education Scholarship Forum.

“Meridith believed strongly in encouraging others, and we feel that this mentorship is an appropriate tribute to her by her friends, family, former schoolmates and former teachers,” said Dr. Scott Moffatt, classmate and assistant dean of student affairs.

The goal for the Meridith Marks Mentorship is to raise $112,000 and so far pledges have been made for more than 25 per cent of this goal.

“Meridith was passionate about medical education and mentorship, and we want to bring her vision and passion back to her medical alma mater and province,” said Dr. Don McKay, associate dean of undergraduate medical education and one of Meridith’s former professors.

Each member of the planning committee is contributing at least $1,000 to help grow the fund. “We are inviting others to do the same – a $1,000 gift is $84 per month or $40 if given bi-weekly,” said Dr. McKay. “Single lump sum gifts of any amount or multi-year pledges are also welcome.”

Meridith Marks was instilled with a solid foundation for education throughout her childhood in Cape Ray, Newfoundland. She was encouraged to pursue whatever she wanted, as long as she always did her best. She completed a kinesiology degree at Waterloo University in 1982, followed by one year in clinical methods in orthotics and prosthetics at George Brown College, Toronto, in 1983. During her time at George Brown, she worked with a young patient with spina bifida; this interaction sparked her interest in working with persons with disability, so she pursued medicine with that specific goal in mind.

Following her MD at Memorial, Dr. Marks completed her residency in physical medicine and rehabilitation at the University of Ottawa and became a Fellow of the Royal College of Physicians and Surgeons of Canada in 1992. She began her career as a physiatrist at the Ottawa Hospital Rehabilitation Centre in 1992, and then completed masters of higher education at the University of Toronto in 1999. She quickly identified a scholarship interest in faculty development and clinician-educator career development; she wanted to help other teachers and educators to be the best they could be and pass on the enthusiasm she had for education to others.

Dr. Marks founded the Academy of Innovation in Medical Education at the University of Ottawa, where she committed herself to excellence in medical education and promoted it actively as an academic pursuit.

“Meridith was keenly aware that clinician-educators needed to be recognized and supported in their work, so she developed strategies to ensure this occurred consistently,” said Dr. Moffatt. “Through her generosity of spirit, time and effort she mentored a generation of educators across Canada.”

Dr. Marks was renowned internationally for her interest and expertise as a physiatrist and as a clinician-educator. “Although she received numerous clinical, teaching and education awards, the true mark of her impact is that the Canadian Association of Physical Medicine and Rehabilitation and the Canadian Association for Medical Education each named a prestigious award in her honour,” wrote Dr. Sue Dojeiji, one of Dr. Marks’ colleagues, in a memoriam article.

“Meridith would be very moved by this initiative, as am I,” said Peter Bruneau, Meridith’s husband of 23 years. “Although we remained in Ottawa once she completed her residency, Meridith had always thought of working in Newfoundland. By supporting this mentorship program, I hope that in effect her wish has come true.”

Letters about the Meridith Marks Mentorship are being sent to the class of 1987 as well as the classes of 1986 and 1988, and faculty members who taught or worked with her.

To pledge your support to the Meridith Marks Mentorship, you can give online through Memorial University’s secure website by visiting www.munalum.ca. Or contact Kathrin Gill at the Office of Alumni Affairs and Development at 709 864 2098 for further information.