

GRAVITAS

m. (feminine gravitatis) a quality of substance or depth
m. (feminine gravitatis) caractère de ce qui a de l'importance



AFMC

The Association of Faculties of Medicine of Canada
L'Association des facultés de médecine du Canada



Réflexions *Nick Busing, Président-directeur général*

Pour citer le *Plan d'action pour favoriser la prospérité*, récemment publié par la Coalition pour l'action en matière d'innovation au Canada, « l'innovation met les idées au travail », « l'innovation est importante partout » et « l'innovation est une attitude ». Qui dit innovation dit obligatoirement changement, désir de répondre différemment à des besoins, tant nouveaux qu'actuels, et capacité à prendre des risques. Au fil des ans, les facultés de médecine ont été le théâtre de nombre d'innovations sur le plan de la recherche en santé et de l'éducation médicale. Croyez-en mon expérience, je les crois prêtes à relever de nouveaux défis et à assurer le leadership en matière d'innovation relative à l'éducation médicale.

Dans le cadre de ce bref éditorial, je désire mettre l'accent sur trois idées qui permettraient d'innover dans le domaine de l'éducation médicale au Canada.

Tout d'abord, parlons de l'agrément. À l'heure actuelle, notre système d'agrément de l'éducation médicale prédoctorale (EMPr) est hautement reconnu. Il est orchestré par le Comité d'agrément des facultés de médecine du Canada (CAFMC) et le Comité de liaison sur l'éducation médicale (LCME). Viennent ensuite les systèmes d'agrément du Collège des médecins de famille du Canada (CMFC) et du Collège royal des médecins et chirurgiens du Canada (CRMCC) qui sont mondialement reconnus en ce qui a trait à l'éducation médicale postdoctorale. Finalement, nous possédons un certain nombre de systèmes afférents à l'agrément de la formation médicale continue (FMC), notamment ceux que gèrent le Comité d'agrément pour l'éducation médicale continue (CAÉMC), le CRMCC et le Collège

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des médecins du Québec. Il s'agit de systèmes hautement efficaces qui atteignent le but visé. Cependant, ils sont exigeants sur le plan de la main-d'œuvre, utilisent d'énormes quantités de ressources dans nos facultés, nécessitent des entrées répétitives, ne sont pas tous axés sur le Canada et dans certains cas, font l'objet de conflits sur le plan de la gouvernance et des processus décisionnel. Pourquoi ne pas mettre en place un système d'agrément unique et uniforme au Canada, qui pourrait être indépendant et auto-suffisant? Nous pourrions miser sur le meilleur du domaine de l'EMPr, ajouter des éléments des milieux de l'EMPo et de la FMC et mettre sur pied un système qui non seulement reconnaîtrait le continuum d'apprentissage grâce à ses normes, mais serait moins lourd, plus efficace et beaucoup moins coûteux sur tous les plans.

Pour continuer sur ma lancée, voici une autre suggestion d'innovation : pourquoi ne pas complètement réorganiser les processus d'admission à nos facultés de médecine. Nous pourrions disposer d'outils d'évaluation « fabriqués au Canada » pour assurer les capacités cognitives de nos futurs médecins. Au même moment, nous pourrions avoir un système davantage axé sur la reconnaissance des capacités non-cognitives que nous recherchons chez les futurs médecins. Le système pourrait être conçu de manière à nous permettre de recourir aux collectivités (par l'entremise de programmes de canalisation et autres initiatives) pour veiller à ce que nous disposions d'un meilleur équilibre parmi les médecins d'origines rurales reflétant toutes les classes socio-économiques et représentant la mosaïque culturelle qui compose le Canada.

Pour demeurer sur le sujet des innovations, pourquoi ne pas créer un nouveau continuum d'apprentissage exempt des transitions complexes qui sont aujourd'hui si apparentes pour les apprenants et les membres du corps professoral. Les milieux de l'EMPr et de l'EMPo améliorent constamment leurs programmes d'études, leurs processus d'évaluation et l'accent qu'ils mettent sur les apprenants, parfois isolément les uns des autres. Ce que nous enseignons dans un domaine peut facilement être annulé dans un autre. L'idée n'est pas nouvelle, mais le fait d'opter pour une expérience pédagogique faisant fond sur les notions acquises d'une année à l'autre et d'un apprentissage à l'autre pourrait constituer une véritable innovation. Alors que nous avons mis de l'avant des recommandations transformatives dans le cadre du volet prédoctoral du projet sur *l'Avenir de l'éducation médicale au Canada* (AEMC EMPr), nous espérons que le volet postdoctoral du projet (AEMC EMPo) permettra de mettre de l'avant un certain nombre de recommandations complexes pouvant traiter de cette question et de plusieurs autres.

Il s'agissait là de quelques idées pouvant avoir une incidence marquée sur l'environnement éducationnel. Je ne minimise pas les commentaires que pourront susciter ces idées ...mais je pense que la tenue d'une telle discussion est justifiée. 🍁

Guest Editorial



Paul Lucas was appointed to his current role as President and Chief Executive Officer of GlaxoSmithKline (GSK) in June 2000 and is responsible for all pharmaceutical operations in Canada.

In November 2010, Mr. Lucas assumed the position of Chairman of the Board of Directors of Canada's Research-Based Pharmaceutical Companies (Rx&D), for an unprecedented third time. He is also Co-Chair of the newly formed Coalition for Action on Innovation in Canada, a member of the Board of Directors of the Toronto Region Research Alliance, a member of the Principal's Advisory Council of the University of Toronto at Mississauga, a member of the Montreal InVivo Board, a member of the Ontario Genomics Institute Board and in January 2010 he will join the Board of Directors for Allergan.

Mr. Lucas has a Bachelor of Science degree (Honours) in Biology and Chemistry from Queen's University and has obtained his Chartered Directors designation (C.Dir.) from the Directors College.

Closing Canada's Innovation Gap

Paul N. Lucas, President and CEO, GlaxoSmithKline Inc.

Co-Chair, Coalition for Action on Innovation in Canada

Chair, Board of Directors, Canada's Research-Based Pharmaceutical Companies (Rx&D)

Canada came through the recent recession relatively unscathed compared with most other countries, and our resource-dependent economy has rebounded quickly as global demand for commodities re-ignites. In such an environment, it is no easy task to deliver a message that the Canadian economy has an 'Achilles heel' that threatens our standard of living and future prosperity.

Yet the facts are indisputable. In February, 2010, the Conference Board of Canada's annual report card *How Canada Performs* gave us yet another D grade on innovation, ranking us 14th out of 17 OECD peers.

In the fall of 2009, a national roundtable brought together innovation leaders from the private sector and academia. We formed the Coalition for Action on Innovation, co-chaired by the Honourable John Manley and myself. Our starting point was the 2009 report of the Council of Canadian Academies that concluded that Canada's productivity problem was actually a business innovation problem – that too many companies adopt strategies that place too little emphasis on innovation.

The roundtable came to two overriding conclusions. First, we need to move immediately to transform Canada into an innovation leader, and second, the main responsibility for advancing this critical policy agenda falls to the business community, working closely with academia.

The coalition released an *Action Plan for Prosperity* on October 13th, 2010. Among its recommendations, several have important implications for Canada's medical community.

A key recommendation is to strengthen business-academic links that are necessary to enhance the commercialization of research and the development of the innovation talent pool. We need to address barriers that hinder collaboration, including funding issues, intellectual property ownership and cultural differences between sectors.

We also need to learn from, and build on, the mechanisms that already bring

academic researchers and companies together. The action plan recommends a pilot program between business and academia that would identify up to 25 partnerships to be nurtured through access to top coaches and other support.

Innovation clusters are another driving force behind innovation and rising productivity, and they also need to be nurtured and strengthened. The business community can help by offering guidance and support to new start-ups and by communicating their needs to universities and research centres.

Our call for leadership from the business community is not merely about advocacy – it has a 'hard dollar' component as well. The Canadian private sector is investing too little in R&D and is slipping further behind global competitors.

Consider our pharmaceutical industry. Although it is the second largest R&D spender among all Canadian industries, the number of clinical trials done in Canada is in decline. Overall, Canada captures only about 1% of the \$100 billion spent globally each year on pharma research.

We need to find ways to invest more into R&D. That is why I'm calling on each member of Rx&D to invest more of their sales revenues back into research. I hope that leaders from other key industry sectors will issue similar challenges.

Most of all, we need a sense of urgency to stem the decline in innovation before it becomes irreversible. If we can enhance collaboration across the business community, academia and government, there is no limit to what can be achieved. 🇨🇦

The Deanery



Innovation in the Second Century of Modern Medical Education

Richard I. Levin, Vice-Principal, Health Affairs, Dean, Faculty of Medicine, McGill University

“More of the same,” is the death knell – according to Clayton M. Christensen, Harvard Business School professor and author of *The Innovator's Prescription: A Disruptive Solution for Healthcare* – for organizations that fail to embrace the disruptions occurring in their marketplace. In academic medicine, the technological revolutions, scientific breakthroughs, societal shifts, burgeoning knowledge and needs of our patients cry out for innovation across the spectrum of our “products.”¹

He cites Digital Equipment Corp., whose founder, Ken Olsen, said, “There is no reason for any individual to have a computer in their home,” and who later recanted, but too late, as he watched the personal computer wipe out his thriving enterprise. Kodak – another great giant of our childhood memories – clung to the same strategic mantra, only to fall sorry victim to a similar fate. Innovation was indeed embedded in their mantras, but applied only to their existing products and services, to improve and fine-tune them, what Christensen refers to as “sustainable innovation.” The examples are countless.

We celebrated this month the tenth anniversary of the life sciences' equivalent to man's first walk on the moon – the human genome project – an extra-ordinary disruption that will revolutionize health care as we know it, and have practiced and taught it, for a very long time. The world is watching.

Add to genomic science the leaps and bounds of technology, as it barrels along on a mind-bending trajectory of innovation, into the health sector – from the invention of advanced imaging, minimally invasive surgery, dialysis in the home, tele-medicine, simulated training, personal electronic health records and, just recently, the world's first completely robotic surgery and anaesthesia, McSleepy meets DaVinci.

Meanwhile, societies are aging, chronic diseases are on the rise, hospitals are bursting at the seams, and the curricula we studied for many years, together with the systems in place to deliver it, struggle to keep pace. All this is amplified across a growing world population, plagued with new and recurring diseases, the sum of which threatens to bankrupt most countries in this century.

Le Décanat

L'innovation au cours du deuxième siècle de l'éducation médicale moderne

Richard I. Levin, Vice-principal, santé et affaires médicales, Doyen de la Faculté de médecine, Université McGill

Sonner le glas, c'est ce que font les organisations en refusant d'accepter les perturbations au sein de leur marché et en décidant de faire toujours un peu la même chose, selon Clayton M. Christensen, professeur à l'École de gestion de Harvard et auteur de l'ouvrage intitulé *The Innovator's Prescription : A Disruptive Solution for Healthcare*. En médecine universitaire, les révolutions technologiques, les percées scientifiques, les virages sociétaux, le foisonnement des connaissances et des besoins de nos patients ont soif d'innovation, et c'est vrai pour tout le spectre de nos « produits ».¹

L'auteur évoque la société Digital Equipment dont le fondateur, Ken Olsen, avait déclaré qu'il « n'existe aucune raison pour que quiconque possède un ordinateur à la maison », et qui s'était rétracté, trop tard, à mesure qu'il voyait l'ordinateur personnel anéantir son entreprise qui luttait pour sa survie. Un autre géant de nos souvenirs d'enfance, Kodak, s'est cramponné au même mantra stratégique, pour ensuite connaître un sort similaire. L'innovation était bel et bien inscrite dans ses mantras, mais uniquement appliquée à ses produits et services existants, pour les améliorer et les peaufiner. C'est ce que monsieur Christensen appelle « l'innovation soutenable ». De tels exemples sont innombrables.

Ce mois-ci, nous avons célébré le dixième anniversaire de l'équivalent, en sciences de la vie, du premier pas de l'être humain sur la lune : le projet du génome humain. Ce projet constitue un bouleversement extraordinaire qui entraînera une révolution dans les soins de santé tels que nous les connaissons, les pratiquons et les enseignons depuis vraiment très longtemps. Le monde observe.


Il faut ajouter à la science de la génomique les pas de géant de la technologie, alors que celle-ci poursuit son hallucinante trajectoire d'innovation dans le secteur de la santé, avec l'arrivée de l'imagerie avancée, de la chirurgie minimalement invasive, de la dialyse réalisée à la maison, de la télémédecine, de l'apprentissage par simulation, de la création de dossiers de santé personnels électroniques et, tout récemment, de la première expérience au monde de chirurgie et anesthésie entièrement robotisées.

Pendant ce temps, les sociétés vieillissent, les maladies chroniques sont à la hausse, les hôpitaux débordent et les programmes d'études que nous utilisons depuis un très grand nombre d'années, tout comme les systèmes en place pour prodiguer les soins, luttent pour maintenir le rythme. Tout cela est amplifié au sein d'une population mondiale en croissance,

In anticipation of great change, the AFMC launched a bold initiative in 2009 to embrace the disruptions and take medical education to the next transformative level: The Future of Medical Education in Canada, as this work is now called.² In tandem, McGill in a “Year of Thinking Dangerously” and other health organizations had begun their own sweeping investigations into what this era would entail for the education of the next generation.

The AFMC results are exceptional, while McGill is poised to launch its new MDCM curriculum reflecting these and other changes. But Christensen’s warning raised the question of whether these old dogs can really do new tricks. The “disruptive innovation” he advocates – the real breakthroughs – require that we also embrace a new vision. In an interview with Harvard Business School, he argues that simply plugging an isolated innovation into an existing framework will not solve the larger problem.³ Both type and mix of healthcare professional must also change, along with the systems and networks supporting them. This notion is summarized succinctly by Jason Hwang, cofounder and executive director of healthcare, Innosight Institute: “Generalists will do more of what specialists do today; nurses will begin to do what generalists do; and, ultimately, patients will do for themselves what they currently have to pay others to do for them.”⁴

What does this mean for health education? According to Christensen, specialists will need to be better trained to practise intuitive medicine in a multidisciplinary team environment, we’ll need more primary care doctors to practise a genomic or rules-based precision medicine, supported by web-enabled decision tools in the office. And, much of the work that general physicians do today will be assumed by other healthcare workers.

The disruptions in our market – genomics, technology, unsustainable financial burden, the power of the patient – are already in play. We know the problems of healthcare delivery will not go away with more of the same. They demand that things are done differently not only through sustained improvement but by embracing disruptive innovation, as leading organizations have done in other sectors. As noted in a British Medical Journal review, “In the language of The Innovator’s Prescription... it is through these disruptive value networks that the future of healthcare can best be secured.”⁵ 


aux prises avec des maladies qui sont soit nouvelles, soit récurrentes, et l’ensemble de la situation fait planer sur la plupart des pays une menace de faillite au cours de ce siècle.

En 2009, en prévision d’un grand changement, l’AFMC a lancé une vaste initiative qui visait à tenir compte des bouleversements et à faire progresser l’éducation médicale vers une prochaine étape de transformation. Cette initiative a pour nom « L’Avenir de l’éducation médicale au Canada ».

² Fonctionnant en tandem, l’Université McGill, par l’intermédiaire de son initiative « L’année des idées novatrices », et d’autres organisations de santé ont entrepris leurs propres examens exhaustifs de ce que cette époque entraînera pour l’éducation de la prochaine génération.

Les résultats de l’AFMC sont exceptionnels, alors que McGill est sur le point de lancer son nouveau programme M.D., C.M. qui tient compte de ces modifications et d’autres changements. Mais l’avertissement de monsieur Christensen a soulevé la question de savoir si l’on peut apprendre de nouveaux trucs à un vieux chien. « L’innovation bouleversante » dont il fait la promotion – la véritable percée – exige que nous nous ouvrons également à une vision nouvelle. Au cours d’une entrevue avec l’École de gestion de Harvard, il a affirmé que le fait d’ajouter une innovation isolée au sein d’une structure existante ne résoudra pas le problème dans sa totalité.³ Ce sont à la fois la nature et la combinaison des professionnels des soins de santé qui doivent aussi changer, tout comme les systèmes et les réseaux qui les soutiennent. Le cofondateur et directeur général des soins de santé de l’Institut Innosight, Jason Hwang, résume ainsi cette notion : « Les généralistes effectueront davantage des tâches qu’accomplissent aujourd’hui les spécialistes; les infirmières commenceront à accomplir les tâches des généralistes; et, ultimement, les patients feront pour eux-mêmes ce que, moyennant rémunération, ils demandent présentement à d’autres de faire pour eux. »⁴

Qu’est-ce que cela signifie pour l’éducation en santé ? D’après Clayton Christensen, les spécialistes devront être mieux formés pour pratiquer une médecine intuitive au sein d’une équipe multidisciplinaire, nous aurons besoin de plus de médecins en soins de première ligne et ceux-ci pratiqueront une médecine de précision fondée sur la génomique ou sur des règles, soutenus par des outils de décision en ligne accessibles au bureau. Par ailleurs, une grande partie du travail qu’effectuent aujourd’hui les médecins généralistes deviendra la tâche d’autres travailleurs en soins de santé.

Les bouleversements au sein de notre marché – la génomique, la technologie, le fardeau financier insoutenable, le pouvoir du patient – sont déjà en jeu. Nous savons que les problèmes de prestation des soins de santé ne disparaîtront pas si nous nous cantonnons dans la même voie. Les choses devront se faire différemment, pas seulement par l’intermédiaire d’améliorations durables, mais par l’acceptation des innovations bouleversantes, tout comme les chefs de file du monde l’ont fait dans d’autres domaines. À ce sujet, on pouvait lire, dans une analyse du British Medical Journal : « D’après la “prescription de l’innovateur”..., c’est par l’intermédiaire des bouleversements de nos réseaux que l’on peut le mieux assurer l’avenir des soins de santé. »⁵ 

1 Clayton M. Christensen, Jerome Grossman and Jason Hwang, *The Innovator's Prescription: A Disruptive Solution for Health Care* (McGraw-Hill, 2009).

2 *The Future of Medical Education in Canada: A Collective Vision for MD Education* (Ottawa: The Association of Faculties of Medicine of Canada, 2010).

3 Deborah Blagg, "A New Approach to Health-Care Reform," *Harvard Business School Alumni Bulletin*, March 2009, Harvard Business School, 24 Feb. 2011 <http://www.alumni.hbs.edu/bulletin/2009/march/ideas_facultyqa.html>.

4 Jason Hwang, MD, MBA, "Disruptive Innovation and the Physician Practice," *Medical Home News*, Jan 2010, Health Policy Publishing, LLC, 24 Feb. 2011. <<http://www.medicalhomenews.com/issues/MHNNews0110page1.pdf>>.

5 Chris Ham, "Hospitals within hospitals," *BMJ*, 2009; 338:b1787, *British Medical Journal*, 24 Feb. 2011 <<http://www.bmj.com/content/338/bmj.b1787.short?rss=1>>.

1 CHRISTENSEN, Clayton M., Jerome GROSSMAN et Jason HWANG, *The Innovator's Prescription: A Disruptive Solution for Health Care*, McGraw-Hill, 2009.

2 *L'avenir de l'éducation médicale au Canada: une vision collective pour les études médicales prédoctorales* (Ottawa: L'Association des facultés de médecine du Canada, 2010).

3 BLAGG, Deborah. *A New Approach to Health-Care Reform*, Harvard Business School Alumni Bulletin, mars 2009, Harvard Business School, 24 fév. 2011. Disponible aussi par Internet à l'adresse http://www.alumni.hbs.edu/bulletin/2009/march/ideas_facultyqa.html.

4 HWANG, Jason, M.D., M.B.A., *Disruptive Innovation and the Physician Practice*, Medical Home News, janv. 2010, Health Policy Publishing, LLC, 24 fév. 2011. Disponible aussi par Internet à l'adresse <http://www.medicalhomenews.com/issues/MHNNews0110page1.pdf>.

5 HAM, Chris, *Hospitals within hospitals*, *BMJ*, 2009; 338:b1787, *British Medical Journal*, 24 fév. 2011. Disponible aussi par Internet à l'adresse <http://www.bmj.com/content/338/bmj.b1787.short?rss=1>.

Dr. Richard I. Levin is currently the Vice-Principal for Health Affairs and Dean of the Faculty of Medicine at McGill University, as well as a Professor of Medicine in the Division of Cardiology and a Professor Emeritus of Medicine at New York University.

He earned a B.S. in Biology with Honors from Yale University in 1970 and graduated from the NYU School of Medicine where he was elected to Alpha Omega Alpha in 1974. He was Senior Chief resident in Internal Medicine at Bellevue in 1997-1998, completed a cardiology fellowship at NYU and then a postdoctoral fellowship in vascular biology and thrombosis at Cornell University Medical College. Before taking on his position at McGill in September of 2006, Dr. Levin was the Vice Dean for Education, Faculty and Academic Affairs, and a Professor of Medicine in the Leon H. Charney Division of Cardiology at New York University School of Medicine.

Le Dr Richard I. Levin est actuellement directeur adjoint des Affaires de la santé et doyen de la Faculté de médecine de l'Université McGill, ainsi que professeur de médecine à la Division de cardiologie et professeur émérite de médecine à l'Université de New York (NYU).

Il a obtenu un B. Sc. en biologie avec distinction de l'Université Yale en 1970 et est diplômé de la Faculté de médecine de la NYU où il a été élu à Alpha Omega Alpha en 1974. Il a été chef résident principal en Médecine interne à l'Hôpital Bellevue en 1997-1998, a complété un fellowship en cardiologie à la NYU suivi d'un fellowship postdoctoral en biologie vasculaire et thrombose à la Faculté de médecine de l'Université Cornell. Avant d'accepter le poste à l'Université McGill en septembre 2006, le Dr Levin a été vice-doyen (éducation, corps professoral et affaires académiques) et professeur de médecine au sein de la Division de cardiologie Leon H. Charney de la Faculté de médecine de l'Université de New York.

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The Innovation Agenda – Are we ready?

Irving Gold, Vice President, Government Relations and External Affairs

Even the most casual observer of Canadian public policy discourse will have noticed the increased prevalence of the term innovation; it has become the new mantra of policy makers in virtually every sector. Those of us who have the task of representing our respective membership in the public policy arena have been quick to incorporate the promise of innovation into our messages and our 'asks'. But what exactly do we mean when we speak of innovation? And more importantly, are we truly capable of delivering on this new mandate?

The concept of innovation is intrinsically linked to that of invention, but the two are quite different. Invention is the first occurrence of an idea or product. Where invention stops short, and where innovation kicks in, is in the actualization of that new idea or product into some tangible benefit. Innovation is about change –new ways of doing things, novel combinations of existing ideas or products for new purposes or outcomes, or the introduction of new social systems or programs, for example.

Innovation is not something that can be simply mandated –innovation requires innovators, people capable of transforming thought processes, imagining new ways of doing things, and moving from ideas to action. Innovation requires nurturing of people and of environments in which innovation can occur.

One of the most frequent manifestations of the term innovation at the federal level is within policy discussions relating to the research agenda. Governments are lamenting the need in Canada for more innovation, often equated with commercialization. While it cannot be denied that Canada can and should do better in terms of translating its public and private investments in research into innovation, to do so requires more than simply an acknowledgement of that need. Somewhat ironically, innovation requires innovation.

For innovation to occur in a meaningful and sustained manner, Canada must foster a research community that sees innovation as a legitimate goal. Research funding mechanisms need to be introduced (or existing ones adapted) so that the potential of innovation is increasingly used as a criteria for success. In addition, incentives to innovate, to move ideas from theory to action, need to be created so that researchers can engage in innovation for the benefit of the nation and not at the expense of their academic careers. Perhaps even more importantly, increased innovation requires an environment which promotes it. Barriers to innovation must be addressed throughout Canada's legislative and policy environment. 🇨🇦




Dr. Peter Ferguson undertook medical school and orthopaedic surgery training at the University of Toronto. During this training, he received a concurrent Master of Science degree from the Institute of Medical Science. He has received certification as an orthopaedic surgeon and a clinician investigator from the Royal College of Physicians and Surgeons of Canada. Following his orthopaedic training, Dr. Ferguson completed fellowships in orthopaedic oncology at Mount Sinai Hospital in Toronto and the Royal Orthopaedic Hospital in Birmingham, England. He was then appointed to active staff at Mount Sinai Hospital and Princess Margaret Hospital. He is currently an Assistant Professor in the Department of Surgery at the University of Toronto and Adjunct Professor at the University of Western Ontario. He has served as Associate Program Director of the orthopaedic surgery training program at the University of Toronto and Director of the competency-based curriculum stream in orthopaedic surgery, and is currently the Program Director of Orthopaedic Surgery. He is a member of the Sarcoma Executive Committee of the National Cancer Institute of Canada, Sarcoma Site Group Leader at Princess Margaret Hospital and President of the Canadian Orthopaedic Oncology Society. Dr. Ferguson has been the recipient of numerous undergraduate and postgraduate teaching awards including the WT Aikins Award, the top award for undergraduate teaching in the Faculty of Medicine at the University of Toronto.

Competency-based Training - A New Paradigm for Surgical Education

Peter C. Ferguson, Assistant Professor, Department of Surgery and Program Director, Division of Orthopaedic Surgery, University of Toronto

We have reached a fork in the path of postgraduate surgical education. The traditional road behind us is the apprenticeship model, involving a standard five years of graduated responsibility, with a final period of independence in management of more complicated surgical conditions as a senior resident. The future of this path is clouded by post-call work hour restrictions, hospital financial constraints that value surgical efficiency over teaching, increased focus on patient safety, and an ever-expanding body of knowledge essential for the surgical trainee to master. These factors all contribute to the looming spectre of increased length of training.

The alternate path is the focus of a pilot competency-based curriculum (CBC) training program at the University of Toronto's Division of Orthopaedic Surgery. Commenced in July 2009, progression through this program is based on demonstration of competence, rather than a set time period. A total of 21 modules have been designed, covering the essential components of training as an orthopaedic surgeon. The objectives for each module are clearly delineated, featuring all of the CanMEDs competencies. Three residents are selected annually, after a thorough interview process, from those matched through CaRMS. Funded by the Ontario Ministry of Health and Long-Term Care, the program relies heavily on surgical simulation at the Surgical Skills Centre at Mount Sinai Hospital in order to ensure the residents gain experience through repetition of procedures on cadavers and surgical models in concert with clinical experience. In this way, training efficiency is maximized as residents are often carrying out procedures in the operating room after they have performed them many times in the skills centre. An absence of off-service rotations, with the exception of two months in the intensive care unit, allows for maintenance of focus on the orthopaedic surgery objectives. Evaluations are extensive, with progression to the next module only occurring after demonstration of competence on written, oral and technical skills exams, witnessed history and physicals, 360° evaluation, audit of dictated operative and discharge notes and presentation at teaching rounds.

The results to this point have been extremely promising. Objective measures of technical skills have demonstrated superiority in the CBC residents compared to residents in the regular stream. The six current residents are generally felt to be performing 1 or 2 years above their current level of training in terms of knowledge, technical abilities, decision-making and communication skills. Although still in its infancy, the CBC has demonstrated such startling positive results that we are incorporating certain components into the regular training scheme. In doing so, we anticipate that competency-based training will represent the new path for surgical programs in the future. 



Alison Buchan is currently Vice-Dean of Research and International Relations at the University of Toronto's Faculty of Medicine. In her previous position as Executive Associate Dean Research, Dr. Buchan was responsible for promoting and developing the UBC Faculty of Medicine's outstanding health and life sciences research. She also worked in partnership with the leaders of the Health Authority-based Research Institutes to plan and implement innovative, complex projects spanning basic sciences, clinical, population health and health policy research. Dr. Buchan worked with individual graduate students/post-doctoral fellows and researchers as well as the leaders of the academic departments, schools, research centres and institutes to communicate new advances and take advantage of the wide-ranging expertise of the health research community in identifying new strategic research directions.

Dr. Buchan was responsible for bringing together investigators to establish the Centre for Disease Modeling resulting in the funding of a \$37 million grant to complete a facility in the Life Sciences Centre. She also worked across six faculties within UBC on the implementation of a new School of Population and Public Health. Dr. Buchan was elected to the Canadian Academy of Health Sciences in 2009. Her research focuses on the interaction between bacterial infection, the enteric nervous system and the onset of inflammatory bowel disease and gastric carcinogenesis.

Innovation in Research

Alison M.J. Buchan, Vice Dean, Research and International Relations, Faculty of Medicine, University of Toronto

Innovation – i.e. implementing new knowledge – is an action that obsesses our leaders whether in politics, academia or industry. Unfortunately, it is also an action that to a great extent eludes us. We are not effective at taking new novel ideas and putting them to work. We have some of the best health researchers in the world who continually discover new relevant facts that are crying out for implementation to drive the innovation economy. Instead that novel information sits in disclosure files of institutions waiting for a lucky break to move from paper to action. How can we change this?

Here are two possible pathways forward. The first and possibly easier is to ensure that proven effective healthcare methodologies are implemented in the workplace. This is the goal of evidence-based healthcare delivery and should be integral to all health profession's workplaces – community or hospital-based. Achieving this goal would ensure our communities stay healthier and reduce the burden on the healthcare delivery system itself. Innovation will require managing system-wide change and educating existing health professionals to value and implement new effective practices. The health faculties at our academic institutions are well placed to deliver on the latter while all participants in the healthcare delivery sector should be tasked with the former.

The second, and more complex, requires expanding and promoting partnerships between academia – the guardian of vaults full of new discoveries – and industry. Such partnerships are the essential ingredient to successful manufacture and distribution of new products on a global scale. At this time innovation is largely dependent on effective networking between the holder of new knowledge – institutional commercialization offices – and industrial prospects.

Prior to the financial meltdown in 2009 some researchers with novel ideas/technologies could find venture capital partners to launch spin-off companies. These companies then either crashed and burned in the competitive market place or were successful and bought out by large multi-nationals; in both cases the return on investment to Canadians was limited at best. The current market place is very different, venture capital is severely limited and innovation now takes the form of shopping novel ideas to companies in the hope they will license the invention to investigate commercial possibilities.

The current models are a one-way flow of new knowledge from academia to industry – we should explore increasing the opportunities for real partnerships with bi-directional flow between industrial partner and academic researchers. Most large companies have significant in-house R&D; one way to promote bi-directional flow is to create entrepreneur-in-residence opportunities at universities and “work experience” for academic researchers with industry, giving the opportunity for academic and industrial researchers to understand the unique opportunities in their partner organizations. There are a limited number of these programs in existence, mostly in science and engineering funded through long standing NSERC partnership programs. These could be expanded into health through CIHR funds. As Canadians we need to move past our suspicion of the motives of big business in building academic/industrial relationships, providing there are clear ethical guidelines in place, we have much to gain and little to lose. Promoting an ‘Innovation Economy’ with knowledge held by academia requires effective, informed action. 🌱



Spécialiste du management et de la gestion du changement, Lucien Albert dirige l'Unité de Santé Internationale de l'Université de Montréal depuis 1996. Il a été un artisan de la création de cette Unité dès 1989. Ses intérêts portent sur les domaines de la planification, du changement organisationnel, du développement des capacités, du développement des ressources humaines, du monitoring et de l'évaluation de programmes et projets.

Avant de se joindre à l'Université de Montréal, il a dirigé plusieurs organisations et projets du secteur de la santé au Québec ainsi que de nombreux projets internationaux. Il a réalisé de nombreux mandats de consultation pour plusieurs organisations telles la banque mondiale, l'USAID, l'ACDI et l'OMS au Canada et dans plus d'une vingtaine de pays. À ce titre, il a participé activement (à titre de consultant ou de chef de projet) à plusieurs projets majeurs de réforme de systèmes de santé, de restructuration ou de renforcement institutionnel d'établissements des secteurs de la santé et de l'éducation. Il agit aussi comme formateur au Canada et à l'étranger.

Le séisme en Haïti : Une opportunité pour innover en matière de formation médicale !

Lucien Albert, Directeur, Unité de santé Internationale, Faculté de médecine, Université de Montréal

Le séisme de janvier 2010 en Haïti a sévèrement endommagé toutes les écoles de médecine sauf une et les pertes de vie de professeurs, de personnel de soutien et d'étudiants ont été importantes. Les hôpitaux qui servaient de centres d'enseignement clinique ont en général souffert de dommages, dont l'étendue varie énormément, ce qui rend l'enseignement clinique encore plus difficile qu'avant le séisme. Qu'elle qu'en soit la mesure, la situation est désastreuse.

Avant même le séisme, la formation médicale s'avérait déjà précaire : curriculum pas mis à jour, approches pédagogiques perfectibles, capacités de formation clinique préoccupantes du fait de l'état des milieux hospitaliers, faible capacité de répondre aux importants besoins de formation médicale sur le plan quantitatif.

Le séisme aura permis aux quatre facultés (publique et privées) d'unir leurs efforts, de se concerter pour entreprendre ensemble des démarches de modernisation de leurs programmes. Même s'ils se donnent dans des conditions difficiles, les cours ont repris. Beaucoup reste à faire...

L'Association des facultés de médecine du Canada et ses partenaires (Collège Royal des médecins et des chirurgiens du Canada, le Collège des médecins de famille du Canada, et la Société des obstétriciens et gynécologues du Canada) souhaitent faciliter la mise à contribution des expertises canadiennes et soutenir la forte volonté des Haïtiens d'améliorer la formation médicale dans leur pays tout comme leur volonté d'améliorer la santé générale de la population. Le séisme et ses conséquences ont créé une occasion unique pour les Haïtiens de s'attaquer aux multiples défis qui sont devant eux.

A court terme, il nous faut aider les facultés haïtiennes à répondre aux besoins urgents tels la dispensation de cours pour lesquels il n'existe plus de professeurs en Haïti. Il faudra faire preuve de capacités d'innovation pour répondre aux besoins. L'enseignement à distance avec l'utilisation des moyens de communication adaptés tels vidyo ou webex, les missions d'enseignement adaptées et la télémédecine seront mises à contribution. Le soutien à nos collègues haïtiens pour faciliter la coordination des efforts des facultés canadiennes mais aussi américaines et francophones nécessitera également beaucoup de créativité ...

Avec eux nous recherchons, dans le moyen terme, les voies et moyens les plus appropriés et novateurs pour contribuer à bâtir un programme d'études médicales (premier cycle et deuxième cycle) réorganisé et mieux adapté aux besoins de santé des Haïtiens, une formation des professionnels de la santé axée sur la promotion de la santé et la santé des populations et une meilleure formation pédagogique des professeurs. Plusieurs initiatives sont déjà en cours ... elles sont pertinentes mais insuffisantes... Mettons tous l'épaule à la roue ! 🙌

Pour plus de renseignements sur ce projet, veuillez communiquer avec Irving Gold à igold@afmc.ca



What “Innovation” Means for Data and Analysis

Steve Slade, Vice President, Research and Analysis CAPER-ORIS, AFMC



In the context of data and information, innovation certainly encompasses the need to develop and implement new data that responds to emerging information needs. We saw an example of this when AFMC partnered with CIHR and ACAHO in 2010 to produce new information on research careers in Canada. As a result of the effort, and for the first time, we now have a new national data source that describes how the careers of basic researchers and clinician scientists are supported.

According to the Oxford dictionary, to innovate is to “make changes in something established, especially by introducing new methods, ideas, or products”. One might say that to innovate is to rework something in order to improve how it functions and what it produces. This definition – and the theme of this issue of Gravitas – provides an excellent opportunity to talk about how our academic medicine data are changing and how the change is producing improved information.

Before talking about how our academic medicine data are changing, let’s first consider what is already established. The Office of Research and Information Services (ORIS) manages several data holdings, including MD program application, enrolment and graduation; undergraduate medical education tuition fees; full-time and part-time faculty counts; graduate student enrolment; and, biomedical and healthcare research revenues. The Canadian Post-M.D. Education Registry (CAPER) maintains longitudinal data on residents and fellows throughout postgraduate medical education as well as ongoing practice location following medical training. Together, CAPER and ORIS provide longstanding metrics on academic medicine in Canada. More importantly, they offer a statistical preview of the future physician workforce.

While we are well-served by our longstanding academic medicine data, the need to innovate is perpetually alive.

In the context of data and information, innovation certainly encompasses the need to develop and implement new data that responds to emerging information needs. We saw an example of this when AFMC partnered with CIHR and ACAHO in 2010 to produce new information on research careers in Canada. As a result of the effort, and for the first time, we now have a new national data source that describes how the careers of basic researchers and clinician scientists are supported. Similar efforts are underway to develop diversity measures for the MD program applicant pool as well as the demographic characteristics of faculty members. As information needs emerge, we must be constantly ready to create anew and reinvent our academic medicine data holdings.

Innovation also comes in the form of how we manage and deliver data. As I write, the CAPER-ORIS team is in the midst of re-engineering how our academic medicine databases are stored. We are progressively moving data into a single, integrated data environment. The process has important data quality, security and productivity benefits. More importantly it is broadening our analytical scope and positioning us to deliver data using online tools that allow users to customize the information they receive.

Increasingly, we need to see innovation not as icing on the cake, but as an essential ingredient in developing data and delivering information. The concept of “evidence-based” has moved beyond clinical care. It is now commonplace to think of evidence-based decision-making and evidence-informed planning. At the same time, we have an increased desire, and ability, to receive information through a variety of media that are user-chosen and user-manipulated. These concurrent trends will continue to drive the evolution of CAPER-ORIS data and analysis. 🌐



Reflections *Nick Busing, President & CEO*

To borrow from the *Action Plan for Prosperity*, recently published by the Coalition for Action on Innovation in Canada, “innovation puts ideas to work”, “innovation matters everywhere” and “innovation is an attitude”. Innovation is certainly about change; it is also about meeting new needs in new ways, while meeting existing needs in new ways and it does involve taking risks. Faculties of medicine are the home to countless innovations in health research and medical education over the years. In my experience, they stand ready to take on new challenges and provide the leadership for innovation in medical education.

In this brief editorial I want to focus on three ideas that would bring innovation to medical education in Canada.

Firstly, let's talk about accreditation. Currently we have a highly vaunted Committee on Accreditation of Canadian Medical Schools/Liaison Committee on Medical Education undergraduate medical education (UGME) accreditation system. Then we have the internationally recognized College of Family Physician of Canada (CFPC) and Royal College of Physicians and Surgeons of Canada (RCPSC) accreditation systems for postgraduate medical education. Finally we have a number of systems for accreditation of continuing professional development (CPD), including the systems administered by the Committee on Accreditation of Continuing Medical Education, CFPC, the RCPSC, and the Collège des médecins du Québec. These are highly effective systems; they seem to get the job done. But they are extremely labour intensive, take up huge amounts of resources at our faculties, demand repetitive inputs, are not all Canadian-centred, and in some cases are faced with conflicts in governance and decision-making. Why don't we think of one seamless accreditation system for medical education in Canada, perhaps free standing and self-supporting? We could build on the best of the UGME world, add from postgraduate medical education and CPD world and have a system that not only recognized the continuum of learning through its standards, but which would be much leaner, more effective and far less costly in all respects.

Here is another innovation - let's entirely revamp our admissions processes for medical schools. We could have “made in Canada” assessment tools to assure the cognitive abilities of our future doctors. At the same time, we could have a system that is far more balanced towards recognizing the non-cognitive skills we want for our future physicians. The system could be designed so that we reach

back into communities (through pipeline programs and other initiatives) to ensure that we have a better mix of doctors with rural origins, that reflect all socio-economic classes and that represent the multicultural mosaic that truly is Canada.

Let's talk about one more innovation - creating a new continuum of learning that does not have the challenging transitions that are so apparent to learners and faculty today. The UGME and PGME worlds continually improve their curricula, their assessments, and their focus on the learner, at times in isolation from one another. What we teach in one area can so easily be undone in another area. This is not a new idea, but it would be a real innovation to make the change to a seamless educational experience that builds from one year to the next and from one learning moment to another. As we have put forward some transformative recommendations with the *Future of Medical Education in Canada MD* (FMEC MD) project, we hope that the current *Future of Medical Education in Canada PG* (FMEC PG) project will bring forward a number of challenging recommendations that may address this issue and many others.

There we have it – a few ideas that could have a huge impact on the educational environment. I don't underestimate the feedback I might receive about these ideas...I think the discussion is worth having. 🌟



Meet our new VP, Education and Secretary, CACMS/ CACME

The Association of Faculties of Medicine of Canada is very pleased to announce the appointment of Dr. Geneviève Moineau as Vice President, Education and Secretary, CACMS and CACME. Dr. Moineau brings a wealth of expertise and experience to these important roles and will be a valuable member of the senior leadership team.

Upon her arrival at AFMC, Dr. Moineau will be involved in all education dossiers including the Future of Medical Education in Canada projects and the Canadian Conference on Medical Education. Her activities will take her from coast to coast and she looks forward to meeting leaders and learners from each of our faculties. Fluently bilingual, Dr. Moineau will serve all medical schools with ease.

Dr. Moineau currently serves as Associate Dean, Undergraduate Medical Education at the University of Ottawa, a position she has held for the past six years. She has previously held the positions of Pediatric Clerkship Director and Paediatric Emergency Medicine Program Director at the University of Ottawa.

As a graduate of the Executive Leadership in Academic Medicine Program, she has had extensive training in leadership. She has had an opportunity to demonstrate her skills as the change agent for the recent Curricular Reform at the University of Ottawa, as Chair of the Program Committee for the 2010 Canadian Conference in Medical Education, as Vice Chair and Secretary to the AFMC Standing Committee on Undergraduate Medical Education and as Faculty for the 2010 Canadian Leadership in Medical Education Course.

Her experience in accreditation includes acting as the Chair of the University of Ottawa, Faculty of Medicine, Institutional Self Study Task Force and as a surveyor and secretary for CACMS/LCME survey visits.

Dr. Moineau will continue to practise Pediatric Emergency Medicine at the Children's Hospital of Eastern Ontario and hold the rank of Associate Professor Department of Paediatrics, University of Ottawa. She will be joining the AFMC fulltime as of June 1, 2011.

Please join us in warmly welcoming Dr. Moineau to her new position.

Nous vous présentons notre nouvelle vice-présidente de l'Éducation et secrétaire du CAFMC et du CAEMC

L'Association des facultés de médecine du Canada a le plaisir d'annoncer la nomination de la D^{re} Geneviève Moineau au poste de vice-présidente, Éducation et secrétaire, CAFMC et CAÉMC. La D^{re} Moineau mettra sa vaste et riche expérience en pratique dans le cadre de ces rôles importants et sera un précieux atout pour l'équipe de haute direction.

À son arrivée à l'AFMC, la D^{re} Moineau s'occupera de tous les dossiers relatifs à l'éducation, notamment des projets concernant l'avenir de l'éducation médicale au Canada et de la Conférence canadienne sur l'éducation médicale. Ses activités l'amèneront à voyager d'un océan à l'autre et elle a bien hâte de rencontrer les dirigeants et les apprenants de chacune de nos facultés. Parfaitement bilingue, la D^{re} Moineau n'aura aucun mal à offrir ses services à toutes les facultés de médecine.

La D^{re} Moineau est actuellement la doyenne associée de l'Éducation médicale de premier cycle à l'Université d'Ottawa, poste qu'elle occupe depuis les six dernières années. Elle a déjà occupé les postes de directrice du Stage de pédiatrie et de directrice du Programme de médecine d'urgence pédiatrique à l'Université d'Ottawa.

En tant que diplômée du Programme de formation ELAM (Executive Leadership in Academic Medicine), elle possède une formation exhaustive en leadership. Elle a eu l'occasion de faire montre de ses compétences à titre d'agent de changement relativement à la récente réforme du programme d'enseignement à l'Université d'Ottawa, de présidente du Comité du programme de la Conférence canadienne de 2010 sur l'éducation médicale, de vice-présidente et de secrétaire du Comité permanent de l'AFMC sur l'enseignement médical prédoctoral et de membre du corps professoral dans le cadre de l'édition 2010 de l'Institut canadien de leadership en éducation médicale.

En ce qui a trait à son expérience dans le domaine de l'agrément, elle a été présidente du Groupe d'auto-analyse institutionnelle de la Faculté de médecine de l'Université d'Ottawa et a agi comme examinatrice et secrétaire dans le cadre des visites du CAFMC/LCME.

La D^{re} Moineau continuera à pratiquer la médecine d'urgence pédiatrique au Centre hospitalier pour enfants de l'est de l'Ontario et conservera le titre de professeure agrégée au Département de pédiatrie de l'Université d'Ottawa. Elle se joindra à l'AFMC à temps plein à compter du 1er juin 2011.

Veuillez-vous joindre à nous pour souhaiter chaleureusement la bienvenue à la D^{re} Moineau dans le cadre de ses nouvelles fonctions.



A Word from CIHR...

Alain Beaudet, President, Canadian Institutes of Health Research

Innovation: It's about more than just the marketplace

Research is making great strides in improving how healthcare is delivered – or, more accurately, how healthcare could be delivered. But discoveries don't become innovations until they're applied. And there are barriers to that application, barriers that have been referred to as the “death valleys” of innovation.

Most people are familiar with the need to bridge valley 1, which is to better translate research results into new services and products, such as drugs, diagnostic tests or medical devices, and bring these to market. There have been numerous *cris du coeur* about Canada's shortcomings in this area. We even have an expert panel investigating what the government of Canada can do to better encourage and support such innovation.

Perhaps even more pressing, however, is the need of bridging the second valley that is the integration of research results into clinical practice. Bridging this second valley is central to CIHR's mission of translating research results into better care and more efficient healthcare systems for Canadians. It is also at the core of our recently launched Strategy for Patient-Oriented Research (SPOR), which aims at using the levers of research to improve health outcomes.

Too often, we still think of innovations in medicine solely in terms of developing new preventive, diagnostic and treatment interventions for health, and forget that the synthesis, dissemination and integration of these new tools into care requires an equal amount of creativity and ingenuity, i.e. of innovation.

Canada has not by any means been standing still with respect to integrating research and care, and I could quote a number of CIHR-funded studies that are having a tangible impact on care practices:

Dr. Lisa Dolovich of McMaster University has demonstrated the value of including pharmacists on primary healthcare teams, particularly for people over age 75 who take an average of six to eight medications each day. Now, provinces such as Saskatchewan and Ontario are funding the inclusion of pharmacists on these teams. Patients are benefiting from having experts available to ensure that they're taking their medications properly and that there aren't any harmful drug interactions.

Dr. William Fraser of Université de Montréal evaluated the effectiveness of amniotic infusion (AI) in late pregnancy in avoiding Meconium Aspiration Syndrome. He found that AI offered no advantage in situations where electronic fetal monitoring is routine and women's due dates are well understood and documented. His research has led to multiple

medical associations around the world changing their guidelines so that they no longer recommend AI. Among them are the American Academy of Pediatrics, the Neonatal Resuscitation Program and the Society of Obstetricians and Gynaecologists of Canada.

Dr. Jolanda Cibere of the University of British Columbia has created standards for knee examinations to enable early diagnosis of osteoarthritis. Her test is used across Canada, while researchers at the US National Institutes of Health have adapted her approach for its Osteoarthritis Initiative, a longitudinal, prospective observational study of knee osteoarthritis that has enrolled nearly 5,000 people from eight countries. She has also developed a standardized hip examination for early detection of osteoarthritis in that joint. Dr. Cibere and her colleagues have also developed three educational videos to show healthcare workers how to examine the knee in a standardized way.

And I could cite many others. Still, we need to do more. Indeed, the compelling financial imperative in all provinces and territories, together with emerging health challenges and increasing expectations from patients and providers, speak to the need of developing a fulsome, collective strategy to move forward. Canada needs to start now to demonstrate research impact, to illustrate how innovation is central to the quality, efficiency and cost-effectiveness of care. This is what the Patient-Oriented Research Strategy is poised to achieve. Our wish is that by 2025, health outcomes in Canada are demonstrably improved and the healthcare experience for patients is enhanced through the integration of evidence at all levels of the healthcare system. ❄️

Dr. Alain Beaudet, MD, PhD, is the President of the Canadian Institutes of Health Research (CIHR). As President, Dr. Beaudet acts both as Chair of the Governing Council and Chief Executive Officer of CIHR. Before joining CIHR in July 2008, Dr. Beaudet was the President and Chief Executive Officer of the Fonds de la recherche en santé du Québec (FRSQ), a position held since 2004.



Un message des IRSC...

Alain Beaudet, Président, Instituts de recherche en santé du Canada

L'innovation : une dimension non seulement commerciale

La recherche permet de réaliser de grands progrès en ce qui touche la prestation des soins de santé ou, plus exactement, la prestation *optimale* des soins de santé. Toutefois, l'innovation repose sur l'application des découvertes, démarche souvent truffée de barrières qui constituent les « vides » du processus d'innovation.

Le premier vide à combler tombe sous le sens. Il s'agit de favoriser la création et la mise en marché de nouveaux produits et services par une meilleure application des résultats de la recherche, par exemple des médicaments, des tests de dépistage ou des dispositifs médicaux. Les lacunes du Canada dans ce domaine ont été maintes fois dénoncées. Nous avons même un comité d'experts chargé d'étudier ce que peut faire le gouvernement du Canada pour mieux soutenir et encourager ce genre d'innovation.

Cependant, il est peut-être encore plus urgent de combler le deuxième vide, par l'intégration des résultats de la recherche aux pratiques cliniques. Il est essentiel pour les IRSC de combler ce vide afin d'accomplir leur mission qui est d'appliquer les résultats de la recherche sous forme de meilleurs soins et systèmes de santé pour les Canadiens. C'est aussi l'élément central de la nouvelle Stratégie de recherche axée sur le patient (SRAP), qui vise à améliorer les résultats cliniques par la recherche.

Trop souvent, on définit encore l'innovation en médecine comme la création de nouvelles interventions préventives, diagnostiques et thérapeutiques, en oubliant que la synthèse et la dissémination de ce savoir, et son intégration aux pratiques cliniques, nécessitent tout autant de créativité et d'ingéniosité, c.-à-d. d'innovation.


Le Canada est loin d'être inactif dans l'intégration de la recherche et de la pratique clinique, comme en témoignent ci-dessous les résumés de quelques études financées par les IRSC qui ont un impact concret sur les soins de santé :

La D^{re} Lisa Dolovich, de l'Université McMaster, a démontré le mérite d'inclure des pharmaciens dans des équipes de soins primaires, surtout pour les personnes de plus de 75 ans qui doivent prendre en moyenne de six à huit médicaments par jour. À présent, des provinces comme la Saskatchewan et l'Ontario financent le recrutement de pharmaciens dans ces équipes. Les patients font appel aux spécialistes pour s'assurer qu'ils prennent leurs médicaments de la bonne façon et qu'ils ne courent aucun risque d'interaction médicamenteuse nocive.

Le D^r William Fraser, de l'Université de Montréal, a évalué l'efficacité de l'amnio-infusion (AI) en fin de grossesse pour éviter le syndrome d'inhalation méconiale. Il a constaté que l'AI n'offrait aucun avantage dans les situations où la

surveillance électronique du fœtus est pratique courante et où les dates d'accouchement prévues sont bien comprises et documentées. Sa recherche a incité de nombreuses associations médicales du monde à ne plus recommander l'AI, notamment l'American Academy of Pediatrics, le Neonatal Resuscitation Program et la Société des obstétriciens et gynécologues du Canada.

La D^{re} Jolanda Cibere, de l'Université de la Colombie-Britannique, a créé des normes d'examen du genou visant la détection précoce de l'arthrose. Son test est utilisé partout au Canada, tandis que les chercheurs des National Institutes of Health ont adopté son approche pour leur initiative sur l'arthrose, étude prospective longitudinale par observation sur l'arthrose du genou, qui a recruté près de 5000 sujets de huit pays. Elle a conçu des normes similaires pour la détection précoce de l'arthrose de la hanche. La D^{re} Cibere et ses collègues ont aussi produit trois vidéos éducatives pour montrer aux professionnels de la santé comment faire un examen du genou selon les règles de l'art.

Et je pourrais citer de nombreux autres exemples, mais nous devons faire encore davantage. En effet, la dure réalité financière des provinces et des territoires, conjuguée à l'émergence de nouveaux défis de santé et à la hausse des attentes des patients et des fournisseurs, plaide en faveur d'une stratégie collective détaillée comme voie à suivre. Le Canada doit commencer maintenant à démontrer l'impact de la recherche afin d'illustrer comment l'innovation est essentielle à la qualité, à l'efficacité et à la rentabilité des soins. C'est ce que tente d'accomplir la Stratégie de recherche axée sur le patient. Nous souhaitons qu'en 2025, le Canada aura amélioré de façon concrète ses résultats cliniques et l'expérience thérapeutique des patients par l'intégration de données probantes à tous les niveaux du système de santé. 

Le D^r Alain Beaudet, M.D., Ph.D., est le président des Instituts de recherche en santé du Canada (IRSC). À ce titre, le D^r Beaudet assume les fonctions de président du conseil d'administration et de premier dirigeant responsable des IRSC. Avant d'entrer en fonction aux IRSC en juillet 2008, le D^r Beaudet occupait le poste de président-directeur général du Fonds de la recherche en santé du Québec (FRSQ) depuis 2004.