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CMBES/SCGB Monthly e-Bulletin

June 2016

Message From the President

*From the desk of the CMBES President,
Martin Poulin*

Dear Biomed Community,

Many thanks to Kelly Kobe and the co-ordinating committee for a great conference in Calgary. I have had very good feedback from registrants on the value of the sessions they attended and from exhibitors on the interest of registrants at their booths. At our AGM, we elected a new executive with mostly returning members; however, I would like to introduce Amanda Saigeon as our new Treasurer and Jean Ngoie as our new Secretary and Information Technology Chair.

The new executive will be working over the next couple months to establish goals for the next 2 years. As many hands make light work, I would like to encourage you to volunteer on one of the committees. We have many initiatives currently and would be grateful for the help to move some of them forward.

As we move into summer, be sure to take some time to enjoy the warm months with family and friends.

Best wishes,

Martin

Message du président

*Du bureau du président de SCGB,
Martin Poulin*

Chère Communauté de Biomed ,

Un grand merci à Kelly Kobe et au comité de coordination pour le beau succès de la conférence à Calgary. J'ai reçus de très bons commentaires de la part des collègues présents sur la qualité des sessions auxquelles ils ont assisté. Également, les exposants étaient satisfaits de l'intérêt des congressistes à leurs stands. Lors de notre assemblée générale annuelle, nous avons élu un nouvel exécutif composé principalement les membres actuels, cependant, je voudrais vous présenter Amanda Saigeon qui agira comme notre nouveau trésorier et Jean Ngoie qui agira comme notre nouveau secrétaire et responsable des technologies de l'information.

Le nouvel exécutif travaillera au cours des deux prochains mois à établir des objectifs pour les 2 prochaines années. Comme de nombreux coups de mains seront requis, je voudrais vous encourager à faire du bénévolat sur l'un des comités. Nous avons beaucoup d'initiatives actuellement et nous serions reconnaissant pour toute l'aide à faire avancer certains d'entre eux.

Comme nous entrons dans la période estivale, assurez-vous de prendre un certain temps pour profiter des mois chauds avec la famille et les amis.

Je vous souhaite le meilleur pour cet été,

Martin

Message from the Vice President

From the desk of the CMBES Vice President, Michael Capuano

After attending CMBEC39 in Calgary last May, I must offer congratulations to Kelly Kobe and his organizing

committee for the successful outcome of the conference and its accomplishments. I also wish to thank the local response which was nothing short of great. The Alberta biomedical community certainly has the enthusiasm (and numbers) to pull off such an event. We were happy to see the hundreds of biomedical engineers and technologists from across Canada attend the exhibit hall and the important scientific and clinical engineering sessions. We had very good attendance for the courses as well.

There are many initiatives under way at both the executive level and by committee. Our challenge of course is finding time to execute them all. This can only be mitigated by having more members and more members willing to volunteer. So those of you who haven't thought about it or are sitting on the fence, please contact [myself](#) or the [CMBES Secretariat](#) to make that first step. Some of these activities are professional-related like Peer Review and efforts to bolster the CMBES name and branding, awards, publications, and membership activities. Academic initiatives are being rebooted with the installment of our latest executive member Tiago Falk (Montreal). Professional Affairs chair Andrew Ibey (Vancouver) continues to seek industry liaisons and legal rights to our titles and branding. We also welcome our new Board Secretary and IT Chair, Jean Ngoie of Niagara Health System Biomedical Engineering. Our Membership Chair Sarah Kelso continues to push for new ways to engage and grow the membership. Mohcine El Garch of Montreal (CMBES Bilingual Affairs) has made significant contributions around efforts to present our information in French as well as English. Publications Chair Tidimogo Gaamangwe of Winnipeg (Health Sciences Centre) has done some fantastic work around all elements needed to move publications for the CMBES forward. From conference proceedings to our newsletters and bulletins, Tidi has done much to formulate the terms and policies for most of our news and media endeavors.

At CMBEC39, I presented once again with my colleague Jean Ngoie on the state of medical device supportability. This was bolstered by a panel of CE 'heavyweights' (Kelly Kobe, Mario Ramirez, Murray Rice, and Martin Poulin). It was interesting to get a perspective from the 'West' as this was previously presented twice in Toronto (WC2015, CESO2016). There was no surprise to see the overwhelming response to the issue. When asked if supportability of medical devices is becoming more difficult, most attendees (if not all) had their hands up and there was no shortage of comments and questions.

I also briefed attendees at the AGM on the current response levels and the importance of responding to FDA Docket (FDA-2016-N-0436). The docket is closed now but I will be carrying out further analysis on the completed docket. Other reports included Peer Review and a summary of the 2015 World Congress. As you know CMBES played a major role in that successful event.

Award Presentation at CMBEC39

From the desk of the Chair of the Awards Committee, Evelyn Morin

Two CMBES awards and one special membership were presented at the banquet at CMBEC39. The 2016 Outstanding Canadian Biomedical Engineer is Dr. Sridhar (Sri) Krishnan of Ryerson University in Toronto. Sri completed his Master's and Ph.D. degrees at the University of Calgary in 1996 and 1999 respectively. In his graduate research, he applied innovative techniques for analysing, displaying and classifying knee joint vibration signals for non-invasive detection of articulate cartilage pathology. Since 1999, Sri has been a faculty member in the Dept. of Electrical and Computer Engineering, Ryerson University. He has developed an active research program involving the application of advanced signal processing techniques to analysis of a number of bio-signals in addition to knee sounds, e.g. cardiac fibrillation, gait rhythm, and respiratory sounds. He currently holds the Canada Research Chair in Biomedical Signal Analysis, and is co-director of the Institute of Biomedical Engineering Science and Technology at Ryerson.

Jeswin Jeyasurya was the 2016 recipient of the Early Career Achievement Award. After completing his Master's degree at UBC in 2011, Jeswin joined Western Clinical Engineering Ltd. in Vancouver. He has distinguished himself as a creative and innovative engineer who puts patient needs first. He has developed a new line of pneumatic surgical

tourniquet cuffs, and devised and led a clinical trial, in Vancouver, of a new technology for measuring tourniquet limb occlusion pressure. He has also invented and tested a wheelchair footrest retraction mechanism, and designed a system to measure wheelchair drag force. A number of patents and patent applications have arisen out of Jeswin's work.

Dr. Anthony (Tony) Easty was made an Emeritus member of the Society. Tony recently retired from a long and distinguished career as a Clinical Engineer. Most recently, he was team leader and researcher with HumanEra and Global eHealth Innovation, University Health Network (UHN) in Toronto, and Professor with the Institute for Biomaterials and Biomedical Engineering (IBBME) at the University of Toronto. He directed research efforts at UHN, into human factors engineering and safety in healthcare and the use of healthcare technology, with the primary objective of enhancing patient safety. He has been very active in service to the profession, including serving as CMBES president, 1992–94; Chair of the Clinical Engineering Certification board of examiners of the CMBES, 2009–2013; and co-chair of the organizing committee for the IUPESM World Congress on Biomedical Engineering and Medical Physics which was held in Toronto in 2015.

To read more about this year's awardees, go to the Awards page at cmbes.ca, click to see a list of recipients for each award or special membership, then click on the name of the awardee. Photos of the awards presentations will be posted on the Society web-site soon.

Welcome to new CMBES Members!

From the desk of the Membership Committee Chair, Sarah Kelso

I am very pleased to welcome a long list of new members to our Society this month! One of the benefits of membership is discounted registration for our annual conference and it's excellent to see that many new members have decided to join in conjunction with their CMBEC39 registrations.

Please join me in warmly welcoming the following new members to our Society (memberships approved Mar–Apr 2016). If you see the name of a friend or colleague, please take the time to personally congratulate them on their new membership and encourage them to take an active role in CMBES.

Hamzeh Matar

Lazaro Sanchez-Rodriguez

Jeff Wilding

Charlotte Shaw

Iulian Daduica

Richard Roberts

Adil Younus

Scott McLaren

Yvonne Henderson

Catriona Czynryj

Yury Sukhavitski

Carlo Menon

Azzam Hazim

Gezachin Ghebregioragis

Alain Lefebvre

Joshua Snauwaert

Ying Zhu

Jennifer Bhatla

Andres Kroker

Andrew Michalski

Brendon Proctor

Layth Shakir

Benny Chik

Howard Bursey

William Gloslee

Todd Ewasiw

Barrett Johnson

Travis Miko

Brodie Ritchie

Ronald O'Flaherty

Stephanie Willerth

Dan Soutar

Frank Gigliotti

My advice to our new members is this: don't let your membership be limited to conference attendance; there are many exciting and rewarding CMBES activities that you can participate in year round. Keep watching the monthly e-Bulletins and quarterly newsletters for plenty of opportunities to get engaged in our national community...

Professional Affairs Update

From the desk of the Professional Affairs Committee, Andrew Ibey

Clinical Engineering Certification: Just a reminder that applications for the Certified Clinical Engineer (CCE) designation are due August 6, 2016. I am encouraged to know that we will have a few registrants for the 2016/2017 application year!

Other Certifications:

Let 2016 be the year to challenge yourself. If you have questions about any certification, CMBES will try to find someone you can talk to directly about the process. Please check out our certifications page for more information to set your professional objectives.

CMBES Member Publication Spotlight

Complexities Faced by a Pediatric Hospital With Healthcare Technologies: A Perspective From the Children's Hospital of Eastern Ontario

By: Zhang, Y. Rachel BSc; Ogungbemile, Abiola BSc, MASC; Janvier, Marie-Ange PhD, PEng; Greenwood, Kim MASC, PEng, CCE

Overview:

Children are not mini-size adults. The team of Clinical Engineers at Children's Hospital of Eastern Ontario have written the article to highlight the unique challenge faced by pediatric hospitals. We want to demonstrate the safety concerns in equipment needs, and highlight the resource needs to accommodate the more lengthy and more costly procedures. By sparking the conversations, we hope that future engineering design would be pediatric-oriented from the conception step to the final production.

Abstract:

This article is written based on the experiences from the Children's Hospital of Eastern Ontario in Ottawa. Pediatric hospitals tend to be more equipment intensive than their adult counterparts; to further complicate the situation, manufacturers often do not pursue the development of equipment for this specialized market because of the high cost of Research & Development and the relatively small customer base. One might even tend to think that many companies have adapted their adult device designs to pediatric usage as an afterthought, with mixed results for performance. Pediatric institutions face a different set of challenges when it comes to ensuring patient safety while continuing to strive to provide state-of-the-art services with matching technologies. Management of the pediatric patient is much more daunting than one would imagine: patient age varies from newborn (neonatal) to 18 years old (young adult). Pediatric body weight ranges from 0.5 to 200+ kg, which is a 400-fold range, whereas in the adult setting it is a much narrower weight range with a 5-fold maximum span. The BSA (body surface area) to Ymass ratio could be 3 times larger for an infant when compared with an adult. Children's bodies have different operational requirements to those of adults. As a result, pediatric hospitals have to hold a wide range of devices that will accommodate this diverse patient population accompanied by consumables needed to cover the full range of patients. Furthermore, storage space for this expanded equipment inventory and the related consumables is a common problem. Consumable supply inventory is often hard to predict because the age group and acuity of patient

fluctuate. All of these factors have a marked impact on both the capital and operating budget of a facility and indirectly impact patient care. In addition, each clinical department within a pediatric facility is presented with its own subset of challenges when faced with lack of pediatric-specific devices. This article presents a few different cases on this theme of the challenges for optimizing new medical technologies in the pediatric healthcare environment, to give the reader a perspective on this issue.

http://journals.lww.com/jcejournal/Abstract/2015/01000/Complexities_Faced_by_a_Pediatric_Hospital_With.19.aspx

UPCOMING EVENTS

May 24 - 27, 2017

CMBEC40, May 24-27, 2017
Winnipeg, MB



Interested in publishing your story in the monthly e-Bulletin or the quarterly Newsletter? [Contact us](#) to discuss your topic!