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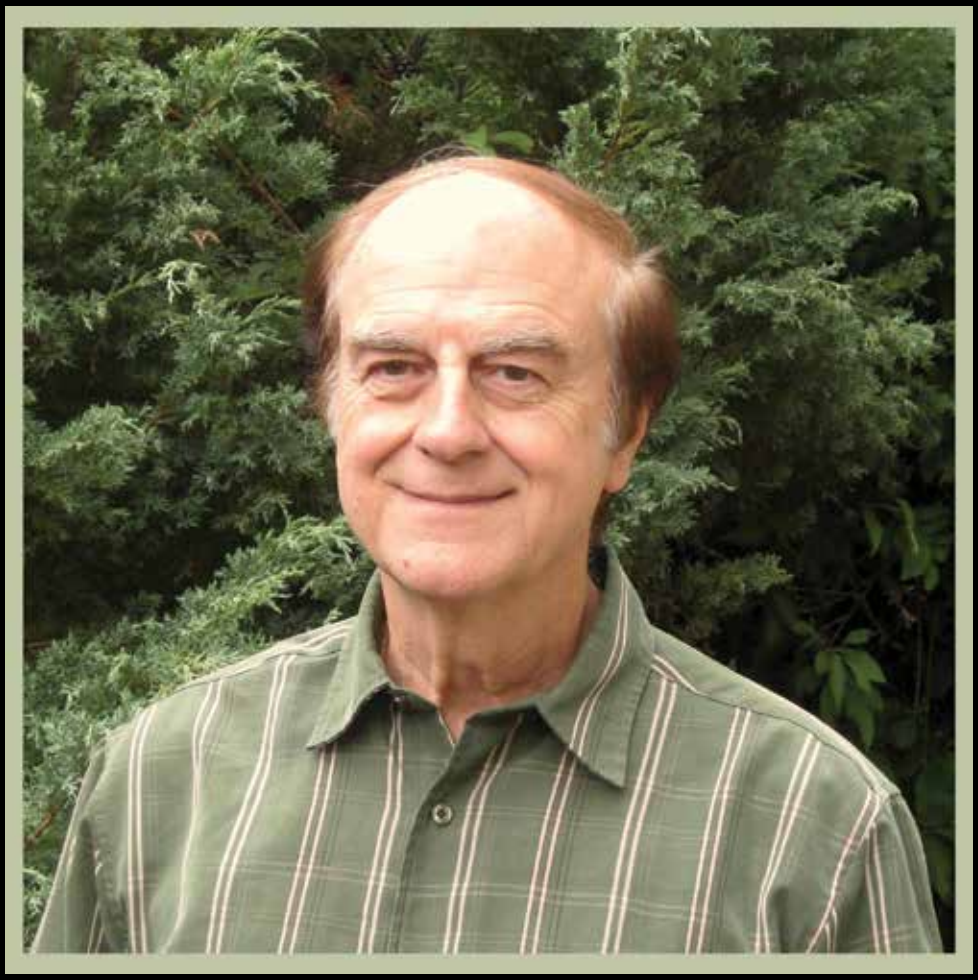

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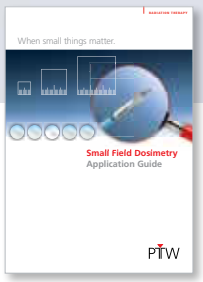

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InterACTIONS

Volume 60, Number 1 – January/janvier 2014

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COMP BOARD

President:
Luc Beaulieu, PhD
CHUQ—Hôtel-Dieu de Québec
Québec, QC
Tel: (418) 525 4444 ext 15315
beaulieu@phy.ulaval.ca

Past President:
Peter McGhee, Ph.D., FCCPM
Thunder Bay Regional HS Centre
Thunder Bay, ON
Tel: (807) 684-7325
mcgheep@tbh.net

Vice President:
Marco Carlone PhD, MCCPM
Princess Margaret Hospital
Toronto, ON
Tel: (416) 946-4501 ext: 2409
marco.carlone@rmp.uhn.on.ca

Secretary:
Emilie Soisson, MCCPM
McGill University Health Centre
Montreal, QC
Tel: (514) 934-1934 ext. 44152
esoisson@mephys.mcgill.ca

Treasurer:
Crystal Angers, MSc, MCCPM
The Ottawa Hospital Cancer Centre
Ottawa, ON
Tel: (613) 737-7700 ext 70030
cangers@ottawahospital.on.ca

Directors:
Parminder Basran, Ph.D., FCCPM
BC Cancer Agency — Vancouver Island Centre
Victoria, BC
Tel: (250) 519-5624
pbasran@bccancer.bc.ca

Craig Beckett, MSc, FCCPM, dABR
Allan Blair Cancer Centre
Regina, SK
Tel: (306) 766-2682
craig.beckett@saskcancer.ca

Jean-Pierre Bissonnette, PhD, MCCPM, FCOMP
Princess Margaret Hospital
Toronto, ON
Tel: (416) 946-4501 ext 2151
jean-pierre.bissonnette@rmp.uhn.on.ca

Stephen Breen PhD, MCCPM
Princess Margaret Hospital
Toronto, ON
Tel: (416) 946-4501 ext 5421
stephen.breen@rmp.uhn.on.ca

Daniel Rickey, PhD, MCCPM
CancerCare Manitoba
Winnipeg, MB
Tel: (204) 787-1764
daniel.rickey@cancercare.mb.ca

CCPM BOARD

President:
Matthew G. Schmid, M.Sc., FCCPM
BC Cancer Agency — Southern Interior
Kelowna, BC
Tel: (250) 712-3917
mschmid@bccancer.bc.ca

Vice-President:
Clément Arsenault, PhD, FCCPM
Centre d'oncologie Dr. Léon-Richard
Moncton, NB
Tel: (506) 862-4151
clement.arsenault@vitalitenb.ca

Registrar:
Horacio Patrocinio, MSc, FCCPM
McGill University Health Centre
Montreal, QC
Tel: (514) 934-1934 ext. 45387
registrar@ccpm.ca

Chief Examiner:
Boyd McCurdy, Ph.D., FCCPM
CancerCare Manitoba
Winnipeg, MB
Tel: (204) 787-1966
chiefexaminer@ccpm.ca

Deputy Chief Examiner:
Renée Larouche, MSc, FCCPM
CHUM - Hôpital Notre-Dame
Montreal, QC
Tel: (514) 890-8000 ext 24860
deputyexaminer@ccpm.ca

Secretary-Treasurer:
Glenn Wells, PhD, FCCPM
Ottawa Heart Institute
Ottawa, ON
Tel: (613) 798-5555 ext 18175
gwells@ottawaheart.ca

General Board Members:
Wendy Smith, PhD, FCCPM
Tom Baker Cancer Centre
Calgary, AB
Tel: (403) 521-3422
wendy.smith@albertahealthservices.ca

Darcy Mason, MSc, FCCPM
Durham Regional Cancer Centre
Oshawa, ON
Tel: (905) 576-8711 ext 2816
damason@lakeridgehealth.on.ca

COMP/CCPM Office
P.O. Box 72024
Kanata North RPO
Ottawa, ON, K2K 2P4 Canada
Telephone:(613) 599-3491
Facsimile: (613) 435-7257
E-mail: admin@medphys.ca
Website: www.medphys.ca

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Christopher Thomas, Ph.D., MCCPM
Nova Scotia Cancer Centre
Medical Physics Dept.
5820 University Avenue
Halifax, NS B3H 1V7
Email: chris.thomas@cdha.nshealth.ca
Phone: (902) 473-1302

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Message from the COMP President

J'ai le plaisir de débuter ce message du président par une annonce importante pour l'OCPM: Industrie Canada confirme que l'OCPM se conforme maintenant aux exigences de la nouvelle loi sur les organismes à but non lucratif. Donc depuis la fin octobre 2013, l'OCPM est régi par ses nouveaux règlements et statuts. Je me permets ces quelques mots pour remercier sincèrement tous les membres du comité de direction pour leur implication et leur travail acharné tout au long de ce processus. Un grand merci aussi à Nancy et à l'équipe d'AMCES pour leur support et leur connaissance de ce processus. Cela a grandement facilité notre travail et permis une meilleure transmission des informations clés vers vous, les membres. Finalement, merci à vous, les membres, pour vos commentaires et suggestions, mais surtout votre confiance lors du vote de septembre dernier.

It is with great pleasure that I start this message from the president by announcing that Industry Canada has confirmed that COMP is in compliance with the new Not for Profit (NFP) Act as of October 29th. Many thanks to the Board for many months of hard work, to Nancy and her team from AMCES for their full support and expertise of this process, and to you, our members, for providing the much needed feedback and trusting us with your vote during this year's AGM.

However, we are not done just yet. The NFP Act is requiring us to generate a third document, which bring together all of our policies and procedures. COMP does have a fair number of terms-of-references for its various committees. However, the Act asks for a little more and these texts will have to be generated and shared with the members. Contrary to the Bylaws or the Articles of Continuance, this last document can be modified directly by the Board as required.

In the last few months, COMP has also taken the lead on an issue that will have important repercussion for medical physicists in Ontario and could also help us to make in-roads in other provinces. The Healing Arts Radiation Protection (HARP) Act is currently being revised by the Ontario legislature. In the past, the HARP Act prevented medical physicists from acting as radiation protection officers (RPOs). With the help of Craig Beckett from the COMP PAC, Ting Lee formed a team of senior medical physicists from Ontario and worked together with the CG Group to petition the Ministry so that medical physicists could act as RPOs under HARP. To date, none of the other health profession societies who are named in the HARP Act have opposed it and many have actually stated that medical physicists should be allowed to act as RPOs. Therefore, COMP has submitted a document on "Recognition Of Medical Physicists As Radiation Protection Officers". This document underlines that qualified medical physicists (who are certified by CCPM in radiation oncology, diagnostic x-ray imaging and nuclear medicine) have all been tested for competency in radiation protection. The proposal submitted by COMP explicitly mentions CCPM certification as a condition for medical physicists to become RPO under the modified Ontario legislation. Should the COMP proposal be accepted, we believe this will have significant positive impacts for medical physicists, COMP and CCPM. To know more, I invite you to look at Craig, Allan, and Ting's letter in this issue of **Inter*ACTIONS***.

COMP will also be releasing two position statements in the coming days. The first one tackles Health Canada Safety Code 35 (SC35) related to x-ray imaging. However, COMP felt that similar initiatives should also exist for all of medical imaging modalities. Building upon the example

Luc Beaulieu

of mammography and bone mineral densitometry, the second position statement addresses COMP's position with regards to magnetic resonance imaging, nuclear medicine and ultrasound imaging. Both statements are reproduced in the current issue of InterACTIONS. Through the Imaging Task Force (ITF), COMP intends to impart a vision that medical physicists are necessary members of any clinical imaging team.

J'aimerais prendre le temps de remercier Isabelle Gagné pour les trois années qu'elle a donné à l'OCPM. En tant que secrétaire, Isabelle a été au coeur de notre passage vers la nouvelle loi sur les organismes à but no lucratif! Isabelle laisse sa place à Emilie Soisson que vous avez élue à la réunion générale annuelle de septembre dernier à Montréal et à qui je souhaite la bienvenue. Deux autres changements aux directeurs de l'OCPM auront aussi lieu. Thorarin Bjarnason du comité portant sur l'imagerie médicale (ITF) et Michelle Neilson de QARSAC doivent laisser leur place (pour des raisons personnelles) comme responsable de leur comité respectif. Tous les deux resteront impliqués comme membre par contre. L'OCPM accueille

continued on page 13

Message from the CCPM President

We've done it!

Our new bylaws have been approved by our membership and the necessary documents have been filed with Industry Canada. I am confident that by the time you read this, we will have received a notice of approval back from Industry Canada [and we did; see announcement in this issue of Inter*ACTIONS* – ed]. I would like to again thank the board members for all the hard work they did to get this done. I would also like to thank AMCES, specifically Nancy Barrett and Gisele Kite, for their help, and also Georges Lozano, our special consultant who drafted the new bylaws and Articles of Continuance and who was instrumental in getting us through this. And finally, I would like to thank all the Members who took the time to participate in the discussions and those who voted.

The business of complying with the new Canada Not-For-Profit Corporations Act has preoccupied the board during my entire tenure as President. There is still a lot of work to be done as we have yet to finalize our new regulations that accompany our new bylaws. The board will be meeting in January and we hope to complete our work on the new regulations at that time.

We have reached another significant milestone. In the past, the funding arrangement that existed between COMP and CCPM was outlined in the bylaws of both organizations. Acting on the advice of the consultant who led us through the process of updating our bylaws, COMP and CCPM have agreed to a contract that formalizes the funding structure. Both boards have recently approved this contract, and it has now been signed. The new contract offers clarity around the funding mechanism for the CCPM. The contract expires on January 31, 2016. At that time, it will be possible to evaluate how well the contract has served both organizations and how it should be extended into the future.

Now that the business of complying with the NFP Act is mostly behind us, it is nice to be able to focus on some of the other issues facing the College.

I have mentioned in previous columns that the Australasian College of Physical Scientists and Engineers in Medicine (ACPSEM) has been working to have their certification recognized internationally. One step they have taken was to invite an expert panel to Australia to evaluate their educational programs. This expert panel has now concluded their investigation and have reported back to the CAMPEP board. As a result, the CAMPEP board has passed the following motion:

"In response to an invitation from ACPSEM, in 2013, two senior-level CAMPEP representatives, the Vice-Chair of CAMPEP and a former chair of the REPRC, reviewed the ACPSEM accreditation procedure. The review included a 1-week site visit. Based upon this review, the CAMPEP representatives found that the ACPSEM graduate and residency educational programs were comparable in content and expectations to CAMPEP requirements."

Notice of this motion was forwarded to me along with a formal request that the CCPM consider the eligibility of graduates of ACPSEM-accredited residency programs for certification by the CCPM. I have also been informed that the same request was made of the ABR.

To be clear, the CCPM is not considering granting certification to ACPSEM members. Rather, the only subject under discussion presently is whether or not ACPSEM-accredited programs would be considered to be essentially equivalent to CAMPEP-accredited programs when determining eligibility to sit the CCPM certification exams. Since CAMPEP has essentially endorsed these programs, the board will give this serious consideration at the upcoming board meeting in January.

Matthew G. Schmid

Over the past few weeks, I have been involved in an initiative related to the status of medical physicists as defined in Ontario's HARP (Healing Arts Radiation Protection) Act. At present, medical physicists cannot be named as radiation protection officers (RPOs) under the meaning of the Act. To say that this seems anomalous would be an understatement. A small committee organized by COMP is attempting to have this changed. A proposal put forth to the Ontario Ministry responsible for the HARP Act proposes that all medical physicists certified by the CCPM in diagnostic radiological physics, nuclear medicine physics, or radiation oncology physics would automatically become eligible to be named as RPOs. I am optimistic that the HARP Act will be amended as proposed. This is one more example of the widening acceptance of CCPM certification. Another example is the recent publication of Health Canada's Safety Code 36 (Radiation Protection and Quality Standards in Mammography). Certification by the CCPM is required for recognition as a medical physicist in this Code. You can look forward to reading a lot more about CCPM's mammography certification program in my next column!

In other news, COMP has undertaken a

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Executive Director Report

Happy New Year to all! I hope that the holidays provided you with an opportunity to take a break and enjoy time with family and friends. When I reflect on what the COMP Board and office has been up to on your behalf, I am amazed at what has taken place over the past few months. Here is a list:

- A very successful COMP CARO Joint Scientific Meeting took place in Montreal
- The kick-off planning meeting for the 2015 World Congress was held in September and regular planning meetings are now taking place
- The new COMP bylaws have been approved by the COMP membership and Industry Canada
- The new CCPM bylaws have been approved by the CCPM membership and Industry Canada
- Both organizations are now fully compliant with the new Canada Not-for-Profit Corporations Act
- A formal funding agreement between COMP and CCPM has been signed and is in place
- Jake Van Dyk has been appointed COMP's representative to the UICC Global Task Force on Radiotherapy for Cancer Control (GTFRCC) and two meetings have already taken place
- Planning for the 2014 Winter School in Quebec City has kicked into high gear with new and more interactive sessions planned
- COMP has published a position statement on Imaging Physics in Canada (see this issue of InterACTIONS)
- A position statement on Safety Code 35 was published (see this issue of InterACTIONS)
- Our first-ever video contest was held to celebrate International Medical Physics Day on November 7th
- A design company for our new website has been selected and development is well-underway
- COMP made a submission to the Ontario Ministry of Health and Long term Care requesting that under the Healing Arts Radiation Protection (HARP) Act and Regulations, Medical Physicists be among the named professions appointed as Radiation Protection Officers (RPOs).

Ms Nancy Barrett

With a list this extensive and just 1.5 FTE staff to support two organizations, it is very clear that the number of members who volunteer their time to support the medical physics profession is outstanding. You will find more details about many of these accomplishments in specific articles in this issue.

I thank you for all of your support and wish you a happy, healthy and successful 2014. As always, please feel free to contact me or Gisele or at any time with your feedback and suggestions.

Message from the CCPM President

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major initiative to update their website. Since COMP and CCPM share a common website infrastructure, this will result in some major changes to our website as well. I have felt for some time now that this is long overdue. This will not happen overnight, but in the relatively near future, we will have the opportunity to redesign the website. I think there is room for improvement in how the content is organized and presented and, as well, we intend to implement new web-based tools to streamline the exam application and recertification processes.

While on the website subject, for some time now, the Chief Examiner has intended to publish a short preparation guide for the Membership exam. This is now available on our website. Most of the information in this guide is either common knowledge or common sense, but most candidates will find the guide useful in their preparations. If you know of someone planning to sit the membership exam, please encourage them to check this out.

And finally, I would like to welcome Wendy Smith to the Board. Wendy, who works at the Tom Baker Cancer Centre in Calgary, was elected to the Board at the AGM in Montreal. She is obviously a very energetic person, as she has also accepted the role of Chair of the Local Arrangements Committee for COMP's next ASM. I look forward to working with Wendy over the next few years.

CCPM Chief Examiner's Report, 2013

Boyd McCurdy
Radiation Oncology Physicist,
CancerCare Manitoba, Winnipeg, MB

Exam Work: Some minor updates of RO questions was performed and a few new RO questions were added. Minor updates to the Diagnostic Imaging exam questions were executed by Harry Ingleby and Daniel Rickey. French translation of MR written exam continues and is nearly complete. This translation is being verified by Jean-Charles Côté.

Call for multiple choice question submission has been made. Exam software to manage the bank of multiple choice questions (Parts I and II) is being investigated for use next year. A reading syllabus for Part I (general medical physics) is being created. A preparation guide for the membership exam is being created.

Membership Written Examination: The written membership exam was held on March 9, 2013 and 30 candidates wrote this exam — 25 candidates in Radiation Oncology, four in Diagnostic Radiology and one in MRI. Three exams were written in French and 27 exams were written in English. The examination was held in 14 locations across the country. Out of these 30 candidates, 18 passed the examination — 18 in Radiation Oncology.

Membership Oral examination: The Membership oral examinations were held in May in Montreal. A total of 21 candidates took the Membership Oral exam — all in Radiation Oncology. There were 18 new candidates and three re-sits. The oral examination for the Radiation Oncology subspecialty was held in a single day on May 11 using two parallel tracks, eight sessions, and 14 examiners. Four candidates examined in French while 14 candidates examined in English. A total of 17 candidates passed — all in Radiation Oncology.

The successful candidates for this year's MCCPM examination were:

Michael Ayles	Lesley Baldwin	Karl Bush
Marie-Laure Camborde	Andrei Damyanovich	Sandrine David
Stephen Davis	Piotr Dubrowski	Claire Foottit
Yannick Hervieux	Janos Juhasz	Tyler Meyer
Timothy Olding	Alejandra Rangel	Dany Simard
Joël St. Aubin	Muoi Tran	

Fellowship Exam: The FCCPM exams were held in Montreal in September. A total of 14 candidates presented and were examined in two parallel sessions over two days by 15 examiners. Thirteen candidates were in the Radiation Oncology specialty and one was in the Nuclear Medicine specialty. Seven candidates passed, six from Radiation Oncology and one from Nuclear Medicine.

The successful candidates for this year's FCCPM examination were:

Andrew Goertzen (NM)	Alana Hudson	Rao Khan
Richard Lee	Nada Tomic	Heather Warkentin
Conrad Yuen		

On behalf of the CCPM I would like to congratulate all new Members and Fellows.

I gratefully acknowledge the tremendous level of support I have received from the Board and the CCPM community at large in running this exam. Whenever I have asked for help it has always been forthcoming, and the strength and success of the CCPM is a reflection of the commitment of its members. In particular I would like to thank the following people that helped out either as invigilators, with logistical support, on the exam committee, the marking committee, the appeals committee, as MCCPM oral examiners, as FCCPM oral examiners and fellow Board members (apologies if I missed anyone):

Will Ansbacher	Clement Arsenault	Alistair Baillie
James Beck	Craig Beckett	Anita Berndt
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Brenda Clark	Sherry Connors	Robert Corns
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Terry Riauka	Daniel Rickey	James Robar
Dave Sasaki	Matt Schmid	John Schreiner
Charles Schroeder	Luanne Scott	Narinder Sidhu
Katharina Sixel	Wendy Smith	Alasdair Syme
Sankar Venkataraman	Heather Warkentin	Glenn Wells
David Wilkins	Conrad Yuen	

2014 SYLVIA FEDORUK PRIZE IN MEDICAL PHYSICS

The Saskatchewan Cancer Agency is pleased to sponsor a competition for the 2014 Sylvia Fedoruk Prize in Medical Physics. This award is offered annually to honour the distinguished career of Sylvia Fedoruk, former Lieutenant-Governor of Saskatchewan and previously physicist at the Saskatoon Cancer Centre.

The prize will comprise a cash award of five hundred dollars ($500), an engraved plaque and travel expenses to enable the winner to attend the annual meeting of the Canadian Organization of Medical Physicists (COMP), which will be held from July 9th to 12th, 2014, in Banff, Alberta.

The 2014 Prize will be awarded for the best paper (i) on a subject falling within the field of medical physics, (ii) relating to work carried out wholly or mainly within a Canadian institution and (iii) published during the 2013 calendar year. The selection of the award-winning paper will be made by a panel of judges appointed by COMP.

Papers published in Physics in Medicine and Biology and Medical Physics, which conform to the conditions of the preceding paragraph, will automatically be entered in the competition and no further action by the author(s) is required. All other papers should be submitted electronically to:

Nancy Barrett
Executive Director
Canadian Organization of Medical Physics
E-mail: nancy@medphys.ca.

Each paper must be clearly marked: "Entry for 2014 Sylvia Fedoruk Prize" and must reach the above address no later than **FRIDAY, FEBRUARY 7TH, 2014.**

The award winners from the last five years were:

Goulet M, Archambault L, Beaulieu L and Gingras L, "High resolution 2D dose measurement device based on a few long scintillating fibers and tomographic reconstruction", *Medical Physics, **39**, Vol. 8, 4840–4849 (2012).*

Andreyev A. and Celler A., "Dual-isotope PET using positron-gamma emitters", *Physics in Medicine and Biology, **56**, Vol. 14, 4539-4556 (2011).*

Frédéric Tessier and Iwan Kawrakow, "Effective point of measurement of thimble ion chambers in megavoltage photon beams", *Medical Physics, **37**(1), 96-107 (2010).*

B. Gino Fallone, "First MR images obtained during megavoltage photon irradiation from a prototype integrated linac-MR system", *Medical Physics **36**(6), 2084-2088 (2009).*

Magdalena Bazalova, Luc Beaulieu, Steven Palefsky, Frank Verhaegen, "Correction of CT artifacts and its influence on Monte Carlo dose calculations", *Medical Physics **34**, 2119-2132 (2007).*

CNSC Feedback Forum

An update on Accelerators and Class II Facilities Division (ACFD) activities

Jeff Sandeman
Senior Project Officer

Accelerators and Class II Facilities Division,
Directorate of Nuclear Substance Regulation

This edition of the CNSC Feedback Forum is an update on some the activities we're working on.

First, as you may be aware from our article in the January 2012 edition of Interactions, the ACFD has taken on regulatory oversight for many low energy (< 10 MV) accelerators which were formerly handled by provincial regulatory authorities. The primary intent of this is to ensure a consistent regulatory approach for equipment which presents radiological risks of a similar nature. By the time you read this article, the deadline (December 31, 2013) for getting these types of accelerators certified and added onto existing facility operating licences will have passed. We're happy to report that the response from the medical physics community has been excellent. As of early December, all of the radiotherapy related licence applications had been received, leaving only two industrial facilities outstanding.

A total of 40 low energy accelerators were brought under CNSC regulatory control in this effort. These included not only conventional 4 and 6 MV medical linacs, but also Cyberknife systems, Tomotherapy units and industrial accelerator facilities used for non-destructive testing, cargo screening, materials processing and sterilization. Many of these are used for purposes that we have not regulated in the past and the inclusion of these new technologies has been a challenging but interesting experience.

Overall the quality of the information submitted has been great and has made reviewing the licence applications and getting these accelerators onto your licences a lot easier. Going forward, these newly licensed facilities will become a focus for future ACFD inspections. Finally, if anyone is attending the upcoming Canadian Radiation Protection Association annual conference in Vancouver in May of 2014, there'll be a presentation on this project by ACFD staff during one of the sessions.

On another note, the Directorate of Nuclear Substance Regulation's (DNSR) annual publication "Nuclear Substances in Canada: A Safety Performance Report for 2012" is expected to be published and available on the CNSC website sometime in the first quarter of 2014. If you've never looked at one of these reports, you can find them at:

http://www.nuclearsafety.gc.ca/eng/readingroom/reports/use-of-nuclear-substances/index.cfm.

They provide a high level overview of occupational radiation doses, inspection results, incidents and compliance enforcement actions for various sectors licensed by the CNSC through the DNSR. This includes radiotherapy, diagnostic and therapeutic nuclear medicine, and PET cyclotron facilities. The 2012 report was presented to the Commission at a Public Meeting on December 9, 2013, and regulatory performance for radiotherapy facilities was one area which was of particular interest to the Commission. The webcast of the meeting is archived and available at:

http://www.nuclearsafety.gc.ca/eng/commission/webcasts/archived/index.cfm

That's all for now, but we'd like to reiterate our request from the last edition. It's tough to keep coming up with new ideas for articles, so, if anyone has any specific topics they'd like to see discussed, we'd love to hear about them.

The Canadian Organization of Medical Physicists Presents Fellow of COMP Awards

September 20, 2013
(Montreal, QC)

The Canadian Organization of Medical Physicists (COMP) awarded its Fellow of COMP awards at the CARO/COMP joint annual scientific meeting held in Montreal from September 18 – September 21, 2013. The FCOMP award recognizes those who have made a significant contribution to the field of medical physics and to COMP through one or more of the following:

- service to the COMP
- a demonstrated body of work showing an outstanding contribution to research and development in the medical physics profession
- a demonstrated body of work showing an outstanding contribution to professional practice
- through educational activities or mentorship, particularly regarding the education and training of medical physicists, medical residents and allied health personnel

Congratulations to this year's winners:

John Aldrich
John Andrew
Alistair Baillie
Wayne Beckham
Jean-Pierre Bissonnette
Pat Cadman
Brenda Clark
Michael Evans
George Mawko
Terry Peters
Frank Prato
John Schreiner

Position Statement: Imaging Medical Physics in Canada

Participation of medical physicists in the clinical application of medical imaging is essential for providing the best possible patient care, realizing potential operational efficiencies and cost savings, and ensuring optimal radiation safety for patients and health care workers.

Executive Summary

While Canadian contributions to research and development in medical imaging physics are well recognized and highly regarded internationally, there is a notable deficiency in the recognition for the contributions that imaging medical physicists bring to the clinical arena. The number of positions for clinically certified imaging medical physicists is significantly lower than values recommended by the European Commission and the American Association of Physicists in Medicine. The importance of medical physicists in the realm of radiation oncology is appreciated in Canada; there is a need to achieve a similar level of recognition for the various diagnostic imaging medical physics sub-specialties. Increasing the number of certified imaging medical physicists and their role in patient care would positively impact a significant portion of the Canadian patient population. The recently published guidelines from Health Canada, Safety Code 35 (SC35) - *Radiation Protection in Radiology – Large Facilities*, underscores the need for medical physicist participation in diagnostic radiology and introduces a platform upon which to build a national strategy for optimal participation of medical physicists in Canadian medical imaging. Creation of analogous guidelines for nuclear medicine, magnetic resonance imaging and ultrasound is necessary to ensure optimal medical imaging in Canada.

Background

Since the discovery of x-rays and radioactivity at the end of the 19th century, many significant advancements in diagnostic medicine are attributable to advances in physics. Devices and techniques considered essential to appropriate patient care, ranging from x-ray, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound (US), and diagnostic nuclear medicine (NM) imaging to internal radiotherapies where radiolabeled molecules are employed in cancer treatment, are a direct result of contributions of physics to medicine. Canadian imaging medical physicists have a rich history of such contributions, and significant advances continue to be made. The European Commission presently has a report in draft suggesting staffing levels for imaging medical physics that are in agreement with the 1991 AAPM guidelines for diagnostic radiology. Using guidelines proposed by the European Commission, Canada requires at least 8.5 clinical imaging medical physicists per million population. Presently, we have fewer than 50 imaging medical physicists registered as members of the CCPM, many of whom perform research and are not largely involved clinically. It is clear that there are very few certified imaging medical physicists participating in the clinical application of imaging physics.

There is further evidence of the benefits that can be realized by increasing the presence of medical physicists within the practice of diagnostic imaging. Two Canadian examples of the positive impact are the Mammography Accreditation Program currently sponsored by the Canadian Association of Radiologists, and a recent trial initiative with Bone Mineral Densitometry undertaken by the Ontario Association of Radiologists. In both instances, significant improvement in the diagnostic quality and clinical reliability of these techniques were realized. Further evidence that current practice can be improved is found in the disparity of image quality and associated patient dose in computed tomography across the country; regional surveys continue to demonstrate significant inconsistencies. Other positive examples can be found in nuclear medicine, as pointed out by the Image Wisely initiative, where recent improvements in hardware and software protocols permit a reduction in the use of radiopharmaceuticals and associated patient dose and costs while still enhancing image quality. However, if these advancements are not used or are incorrectly implemented into clinical practice, then a portion of the population will be either (i) receiving an unnecessarily high radiation dose or (ii) the full clinical benefit of a delivered dose will not be realized – precisely the type of deficiencies that medical physicists can mitigate or resolve.

Strategy

Given the magnitude of the challenges facing the imaging physics community, a multi-year, multi-pronged strategy needs to be implemented. Principal components of this strategy include:

1. Promote Adoption of SC35

Safety Code 35 represents a significant advancement of the national guidelines as they relate to diagnostic radiology. The document delineates roles appropriate for medical physicists

within the subspecialty. COMP promotes provincial adoption of these guidelines in whole or in part and strongly endorses adherence to the roles of medical physicists outlined therein.

2. Establish a Plan to Address SC35 Human Resource Requirements

Given the current situation, should Safety Code 35 be generally adopted, there will be a significant gap between the existing number of certified imaging medical physicists and the number that would be required. Means for producing and maintaining a sufficient number of certified imaging medical physicists will need to be established. Both the expansion of existing and introduction of new CAMPEP accredited graduate programs and residencies will be necessary. Clearly the ability to fulfill SC35 recommendations will be limited by the rate at which the requisite human resources can be established. Having an appropriate plan in place will assist in addressing the potential perception that this challenge is an impediment to progress.

3. Pursue Development of Guidelines for NM, US, and MRI Analogous to SC35

The development of a federal guideline such as SC35 is a significant cornerstone in establishing consistency of patient care throughout the nation. The inherent advantage of such a document immediately suggests the development of similar documents for the other imaging subspecialties recognized by the Canadian College of Physicists in Medicine: NM, US and MRI.

4. Delineate Prospective Human Resource Requirements for NM, US and MRI

Success with establishing and adopting appropriate safety guidelines for NM, US, and MRI will create a demand for additional certified imaging medical physicists in these areas. As with diagnostic radiology, consideration will need to be given to establishing the necessary and appropriate educational and training capacity so that appropriate human resource levels can be realized.

The ability to pursue each of these strategic components is completely contingent upon the expert resources available to provide direction. Moreover, establishing a commonality of approach will lead to efficiencies in realizing the objectives for the imaging physics subspecialties.

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Message from the COMP President

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donc deux nouveaux directeurs (selon la nouvelle nomenclature des statuts et règlements). Daniel Rickey (ITF) et Jean-Pierre Bissonnette (QARSAC) ont accepté d'assurer l'intérim. Selon nos règlements, il devra donc y avoir une élection pour ces deux positions à la prochaine réunion générale annuelle qui aura lieu à Banff en juillet prochain.

For those who might have missed this announcement, our Gold Medal winner Dave Rogers has been received as a Fellow of the Academy of Science (Mathematical and Physical Sciences Division) of the Royal Society of Canada (RSC). This announcement is all to the credit of Dave for his tremendous impact he is having in our field. It certainly enhanced the stature of medical physics as a research discipline. Dave is one of the rare scientists coming from the medical physics field admitted to the RSC. We hope more could follow in the future.

En terminant, je vous invite à participer en grand nombre à l'école d'hiver qui aura lieu à la fin janvier au coeur du Vieux-Québec. See you in numbers in Quebec City for the Winter School at the end of January. This year school put forward another exciting program that you should not missed.

THE CANADIAN COLLEGE OF PHYSICISTS IN MEDICINE

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Contributions to the Harold E. Johns 2013

CCPM wishes to recognize and thank the following members of their 2013 donations to the Harold Johns Travel Award. The list below has been updated to reflect all contributors this year. For many years the HE Johns Travel Fund has been awarded to young medical physicists to support their travel to another centre so that they may gain further experience in their specialty. With the economic downturn, investment return is minimal. Donations to the fund have to sustain the annual expenditure in the current economic environment. Please consider donating to the fund this year so that we may continue this legacy of education. Further details on the award can be found on the CCPM website.

The 2013 HEJ winner was Daniel LaRussa, with a proposal to attend a radiobiology course in the United Kingdom.

H.E. Johns – Officer of the Order of Canada, Ph.D., LL.D., D.Sc., Emeritus University Professor and Professor Emeritus in the Department of Medical Biophysics and Radiology, University of Toronto.

Dr. Johns was born of missionary parents while in West China. During his scientific career, he published over 200 peer-reviewed papers, trained over 100 graduate students, many of whom hold key positions in the field of Medical Physics across Canada and around the world. He has won many prestigious awards and has published four editions of "The Physics of Radiology", the premiere textbook in the field.

His developments in the late 1940s of the Cobalt "bomb" led to a career in the pioneering field of Medical Biophysics. This in turn led to international reputation among scientists. His many awards and accolades reflect the respect and admiration in which he was held by academics and scientists around the world. He was inducted into the Canadian Medical Hall of Fame in 1998. Dr. Johns passed away on August 23, 1998.

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THE CANADIAN COLLEGE OF PHYSICISTS IN MEDICINE

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Harold Johns Travel Award Announcement

Deadline for Application: 11th April 2014

The Board of the Canadian College of Physicists in Medicine is pleased to honour the Founding President of the College by means of the Harold Johns Travel Award for Young Investigators.

H.E. Johns – Officer of the Order of Canada, Ph.D., LL.D., D.Sc., Emeritus University Professor and Professor Emeritus in the Department of Medical Biophysics and Radiology, University of Toronto.

Dr. Johns was born of missionary parents while in West China. During his scientific career, he published over 200 peer-reviewed papers, trained over 100 graduate students, many of whom hold key positions in the field of Medical Physics across Canada and around the world. He has won many prestigious awards and has published four editions of "The Physics of Radiology", the premiere textbook in the field.

His developments in the late 1940s of the Cobalt "bomb" led to a career in the pioneering field of Medical Biophysics. This in turn led to international reputation among scientists. His many awards and accolades reflect the respect and admiration in which he was held by academics and scientists around the world. He was inducted into the Canadian Medical Hall of Fame in 1998. Dr. Johns passed away on August 23, 1998.

The award is given annually by the Canadian College of Physicists in Medicine to an outstanding CCPM Member proposing to visit one or more medical physics centres or to attend specialized training courses such as an AAPM summer school. It is intended to assist the CCPM Member in extending his or her knowledge by travelling to another centre or institution with the intent of gaining further experience in his or her chosen field, or, alternately, to embark on a new field of endeavour in medical physics. Its ultimate goal of the award is to enhance medical physics practice in Canada.

Applicants may travel either inside Canada or elsewhere. Applicants must have passed the CCPM membership exam within the previous three years, be less than 35 years of age and should not have previously taken a similar course or have spent a significant amount of time at the proposed institutions. The award is for $2,000 and will be paid upon receipt of a satisfactory expense claim. Recipients need not be Canadian citizens but must be working in Canada.

The deadline for application this year is April 11, 2014.

Applicants must submit a one-page proposal indicating the course they wish to attend or the name(s) of the institutions they would visit and the reasons for their choice. They should also submit an estimate of the costs involved and letters from their present employer indicating that they are in agreement with the proposal. If their proposed expenses exceed the value of the award, then they should also indicate the source for the additional funds required. For a visit to an institution the candidate must have that institution write to the Registrar in support of the visit. The candidate should also provide their curriculum vitae and the names and phone numbers of two references that the selection committee can contact. No reference letters are required. The selection committee reserves the right to contact additional individuals or institutions.

A panel appointed by the Board of the College will choose the award recipient. Their choice will be based upon 1) the written proposal submitted by the candidate, 2) references obtained by the committee and 3) membership exam results. The award will be announced at the Annual General Meeting of the College. Recipients will have two years after their application deadline to complete their travel and will be required to submit a short report to the InterACTIONS newsletter.

Applicants who are unsuccessful in any one year and still eligible in subsequent years may have their applications considered again by writing to the Registrar and providing any necessary updated information.

Applications should be sent to the Registrar of the Canadian College of Physicists in Medicine at:

Mr. Horacio Patrocinio
McGill University Health Centre,
Medical Physics Department,
1650 Ave Cedar
Montreal, QC H3G1A4
horacio.patrocinio@mcgill.ca

Position Statement: Safety Code 35

COMP strongly endorses the provincial and territorial adoption of Health Canada Safety Code 35. Given the continual increase in the amount of diagnostic imaging and corresponding population dose, and the increase in number and complexity of interventional procedures and corresponding risk of individual tissue reactions, the need for radiation safety standards and qualified personnel has never been greater. Development of similar safety codes for nuclear medicine, magnetic resonance imaging, and ultrasound is also strongly recommended.

Executive Summary

Provincial and territorial adoption of Health Canada Safety Code 35 (SC35) - Radiation Protection in Radiology – Large Facilities will bring Canada into alignment with international standards. The COMP Imaging Taskforce is uniquely positioned to assist Health Canada in future safety code initiatives. COMP encourages the use of the taskforce as a resource by provinces and territories as they update their radiation safety and quality control regulations. Creation of analogous guidelines for nuclear medicine, magnetic resonance imaging, and ultrasound is necessary to ensure optimal medical imaging in Canada.

Background

Safety Code 35 (SC35) was published in 2008 and brings Canada's standards in line with those in European countries and the United States. This safety code is a much-needed update of the previous Safety Code 20A (SC20A) published in 1999. SC20A focused on film technology and was severely lacking in information on digital systems. The adoption of SC35 will reduce patient dose while providing the best quality diagnostic images and a safe work environment.

With the increased use of diagnostic imaging and the parallel increase in volume and complexity of interventional fluoroscopic procedures, there is a greater need for radiation safety experts than ever before. Interventional procedures can cause tissue reactions in individual patients and diagnostic imaging, with its large number of patients, can cause stochastic effects in the population. Furthermore, training in the safe use of fluoroscopy has not kept pace with expanding clinical applications of procedures that may be performed by non-radiologists. SC35 provides guidelines for use by safety and quality assurance personnel that assist in training and privileging programs, setting dose limits, performing dose estimates, and ensuring the dose indicators provided by the equipment are accurate and reliable.

While there is room for improvement within SC35, it does provide an excellent guide for quality control and radiation safety. It defines the requirements of radiologists, medical physicists, biomedical service personnel, medical radiation technologists, and the facility radiation safety officer. The safety code outlines the minimum requirements for quality control and radiation safety. Medical physicists are ideally equipped to identify gaps, determine which parts of the code do not apply in certain scenarios, and can appropriately extend the safety code to address more advanced equipment as it enters the clinic. Through this position statement, COMP is also hoping to set an example for other organizations communicating the importance of SC35 to their members. Through COMP medical physicists can provide organized feedback to Health Canada, and optimize and standardize safety requirements and quality control testing procedures.

Implementation of SC35 will likely increase the amount of testing that many sites will need to perform, but the investment will result directly in improved quality and patient safety. Effective quality control and radiation safety programs reduce healthcare costs by identifying problematic equipment before adverse use. Early identification of problematic equipment helps reduce hospital waiting times caused by improperly functioning equipment and improves patient diagnosis and treatment by ensuring the safe operation of equipment. In addition, optimizing image quality, while keeping radiation doses to the lowest possible levels, helps reduce the future burden on the health care system, both in the short term by preventing and minimizing tissue reactions, and in the long term by minimizing stochastic effects such as cancer and cardiovascular diseases.

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Medical Physicists as Radiation Protection Officers in Ontario

Craig Beckett
Chair, COMP Professional Affairs Committee
Director of Medical Physics

Allan Blair Cancer Centre, Regina, SK

Ting-Yim Lee
Medical Physicist

St. Joseph's Health Care London, London, ON

In Ontario, under the Healing Arts Radiation Protection (HARP) Act and Regulations as they are currently written, medical physicists are not among the named professions appointed as radiation protection officers (RPOs). Over the decades COMP and CCPM have tried a number of times to change the regulation without success; the main stumbling block apparently having been that medical physics is not a regulated health profession in Ontario.

The Ontario Ministry of Health and Long Term Care (MOHLTC) is now reviewing the HARP Act and Regulations. Ting-Yim Lee represented COMP in a MOHLTC organized consultative meeting with stakeholders in x-ray imaging on Aug 15. During the meeting the training and expertise of medical physicists in radiation protection was emphasized and the absence of the profession as potential RPOs in the HARP regulation was raised. A consultant was in attendance at the meeting and offered the opinion that regulated profession status need not be a barrier to naming professions for purposes of the HARP act and regulations. COMP then contracted with the consultant, Don Gracey of CG Group, who obtained on Oct 21 a response from the MOHTLC that they would consider an application from COMP to amend the HARP Act and Regulations enfranchising medical physicists as RPOs. The application needed to demonstrate the net benefit to Ontario's healthcare delivery system of having medical physicists appointed as RPOs, the minimum competencies required for medical physicists to be eligible for appointment as RPOs, how those minimum competencies should be manifested or demonstrated and finally, the demographics of medical physicists in Ontario and how many of them would be qualified to be RPOs. A tight time line was imposed by MOHLTC in that the application has to be submitted by the end of November.

An email was sent by COMP on October 28 to inform all members of this development. A call for volunteers was also made, particularly to Ontario members, to help in the preparation of the application document. The following is the list of volunteers that responded to the call:

Ting-Yim Lee, Gord Mawdsley, Ernst Osei, Jeffrey Richer, John Schreiner, Stephen Sawchuk, David Wilkins, Xia Wu and Martin Yaffe.

The COMP Councillor for Professional Affairs (Craig Beckett) and Presidents of COMP and CCPM (Luc Beaulieu and Matthew Schmid) also volunteered their time in the working group.

A great deal of work was done by this group in a very short time period. The benefit to the public was demonstrated, the eligibility requirements were recommended (MCCPM in diagnostic, radiation oncology, nuclear medicine), and a new pool of well qualified and potential RPOs was demonstrated. With the active participation of all working group members, the final application document was completed and submitted by COMP to the MOHLTC on November 29.

While all Canadian provinces have in place legislation and associated regulations to protect the public respecting ionizing radiation, only B.C., Alberta, Manitoba and Ontario require the appointment of specific named agents or institutions in this capacity. While B.C.'s diagnostic accreditation program names medical physicists as potential Radiation Safety officers, they do not maintain an exclusive list. Only Ontario includes a list of named professions and if this application is successful, medical physicists will be on that list.

This is an important issue for Ontario physicists since they have hereto been disenfranchised in a role to which they are highly qualified and in many cases practically filling. It may also be expected to encourage the employment of medical physicists in x-ray imaging facilities in Ontario, raising the profile of the profession. Furthermore, we're hopeful this development will open the door to further changes in the HARP act respecting radiation safety standards such as Safety Code 35. As other provinces review their legislation, we will have the Ontario example to point to.

As such, the Ontario working group, COMP and CCPM are eagerly waiting for the result of this application.

CARO-COMP Report

Stephen Breen
Chair, COMP Science and Education Committee
Senior Physicist

Princess Margaret Hospital/University Health Network, Toronto, ON

The CARO-COMP 2013 was held in the Hilton Bonaventure in Montreal in late September. This was the second time that COMP has held a joint meeting with CARO (previously in Toronto, 2007). The theme of the meeting was *Innovations in Imaging*, which appealed to COMP and CARO members alike. There were 620 registered delegates for the meeting, and with about 100 more commercial exhibitors and staff, the number of attendees made for an energetic, vibrant two-and-a-half days. A quick scan of the proffered presentation topics – photon interaction cross-sections to oligometastasis, MRI perfusion to cancer survivorship, radiochromic dosimeters to zebrafish xenotransplantation - shows the immense range of interests in the radiation oncology and medical physics communities in Canada. And whether it was in oral presentation sessions, in meeting rooms, or – perhaps most vitally – in the hallways, the excitement of inter-professional discussion was evident throughout the meeting.

Prior to the meeting's opening, Wednesday was filled with educational activities for radiation oncology residents, radiation oncologists, and medical physicists. Sixty physicists learned about imaging physics activities at McGill and Montreal Neurological Institute in the evening's COMP continuing education session.

For CARO, COMP, and the Canadian College of Physicists in Medicine, their annual general meetings this year took on extra significance due to the new federal Canada Not-for-Profit Corporation Act. The membership of all three organizations agreed to the changes in governance put forth by their Boards of Directors to comply with the Act prior to the deadline of October, 2014.

Physicists and radiation oncologists met together in four plenary sessions. The CARO-COMP Theme symposium highlighted advances in imaging in PET (Dr. Francois Benard, UBC), CT (Dr. Jeff Siewerdsen, Johns Hopkins), and MR (Dr. Cynthia Menard, UTDRO). Dr. Marcel van Herk (NKI), the CARO lecturer, spoke to the question of whether we have reached the limits of accuracy in modern radiotherapy. The Gordon Richards Award winner, Dr. Tom Pickles of BCCA, spoke about the history of particle radiotherapy in his lecture "The Untold Story of Particle Therapy: Deceit and Triumph". And Dr. John Aldrich, the COMP Gold Medal Winner, reviewed his experience in writing his book on the first century of radiology in Canada. On Saturday morning, Drs. Michael Milosevic (UTDRO) and Tommy Knoös (University of Lund) presented the annual CARO-ESTRO Symposium, which this year reviewed European and Canadian approaches to improving quality and safety in Radiation Oncology.

With both societies meeting together, there were parallel proffered paper sessions totaling seventy-two papers. The Resident/Young Investigator competition highlighted the top twenty physics and oncology abstracts by graduate students, residents, and fellows, and, as in previous years, was the scientific highlight of the meeting. Over 200 posters were presented, making for a very exciting and interactive poster hall. Many attendees remained for the last day of the meeting – always a challenge for the organizers - to join one of the many workshops on Saturday morning and to hear the Canadian Brachytherapy Symposium, delivered by Dr. Alvaro Martinez.

Due to the timing of the CARO-COMP and ASTRO meetings, the organizers were concerned about attendance by our industrial partners. As it turned out, the commercial exhibitors were a key component of the success of the meeting, and many were very pleased to meet with the oncology and physic communities concurrently, rather than at separate meetings.

The social activities were very well attended. The opening reception was held at the Galerie MX, where attendees were surrounded by contemporary art and architecture. The CROF Fun Run and Walk took place along the scenic Lachine Canal under cloudless skies on Friday morning, and the Ruelle des Fortifications was the site of the conference awards dinner which was attended by 350 radiation oncologists and medical physicists.

The size and complexity of the joint meeting stretches the capacity of COMP and CARO to sponsor this event. However, as in 2007, the diligence of the organizing committee, the contributions of the invited speakers, the support of the vendors, and most importantly, the participation of so many COMP and CARO members, made CARO-COMP 2013 a tremendous success.

COMP-CARO 2013 Links

For a collection of photos from this year's COMP-CARO, please go to the following link:
http://www.metagrafixdesign.com/CAROCOMP2013_Photo_Gallery/

All photos by Meta Antolin of metagrafix design.

And for a list of award winners from COMP-CARO, please go here: http://www.medphys.ca/media.php?mid=3924

Position Statement: Safety Code 35

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Thank you to Our Outgoing Board Members and Volunteers!

Isabelle Gagne, a medical physicist with the BC Cancer Agency in Victoria, has completed her term as COMP Board Secretary. This roles involves a considerable amount of behind the scenes work including reviewing membership applications and taking minutes at Board meetings. Isabelle's role was especially important during the Board's work to transition to the new Canada Not-for-Profit Corporations Act as she played a key role in the ongoing communication to the membership about the proposed changes.

Michelle Nielsen is a medical mhysicist with Trillium Health Partners. Michelle served on the COMP Board for two years as Councillor of Quality Assurance and Radiation Safety and also chaired the Quality Assurance and Radiation Safety Advisory Committee (QARSAC). In this capacity, Michelle played a key role in representing COMP on the Canadian Partnership for Quality Radiotherapy (CPQR). QARSAC will continue to benefit from Michelle's expertise because although she is stepping away from the role of Committee Chair, she will continue to be a member of the committee.

Thorarin Bjarnason is a medical physicist in Diagnostic Imaging Services in Kelowna, BC. Thor served as the inaugural Chair of COMP's newly formed Imaging Taskforce (ITF). Under his leadership, the ITF accomplished a great deal in a very short period of time, including the development of two position statements: the first on Imaging Physics in Canada and another on Safety Code 35. While Thor is stepping down as ITF Chair due to other commitments, COMP is very pleased that he will be remaining as a member of the ITF.

Welcome New Board Members and Volunteers

Emilie Soisson has been a clinical medical physicist at the McGill University Health Centre since 2009 and Assistant Professor at McGill. She began her career as a dosimetrist at Massachusetts General and has a PhD in medical physics from the University of Wisconsin.

Emilie will be serving as Secretary on the COMP Board for the next three years and has experience volunteering on committees with the AAPM, the AAMD and at McGill.

Daniel Rickey is an imaging physicist at CancerCare Manitoba where he has been since 1995. Daniel has agreed to step into the role of Chair of the Imaging Taskforce. This is not Dan's first volunteer contribution to COMP as he has been serving on the Professional Affairs Committee for a number of years. COMP is now frequently being asked to provide input on a variety of imaging-related issues and we are grateful that Dan has agreed to lead COMP's work in this area.

Jean-Pierre Bissonnette is an Assistant Professor in the Department of Radiation Oncology at the University of Toronto where he is also the Director of Physics Education. Jean-Pierre has agreed to step into the role of Chair of the Quality Assurance and Radiation Safety Advisory Committee (QARSAC), a role he has held previously. In this capacity, Jean-Pierre will represent COMP on the Canadian Partnership for Quality Radiotherapy (CPQR) to ensure continuity for this important initiative. Jean-Pierre is also involved in the planning of the 2015 World Congress on Medical Physics and Biomedical Engineering. Welcome back, Jean-Pierre!

Ervin B. Podgorsak Scholarship Inaugural Reception

Emilie Soisson
Medical Physicist

Department of Medical Physics,
McGill University Health Centre, Montréal, QC

On September 17th, just prior to the COMP meeting in Montreal, the McGill University Medical Physics Unit hosted a reception to inaugurate the Ervin B. Podgorsak Scholarship in Medical Physics.

As recipient of the 2011 CAP-COMP Peter Kirkby Memorial Medal, the 2008 COMP Gold Medal, the 2006 AAPM William D. Coolidge award, and numerous other awards, along with years of service to COMP and the CCPM, Ervin Podgorsak's contributions to medical physics are well known. At McGill however, his love for teaching and his establishment of the medical physics program have, in many ways, overshadowed his other accomplishments. Since his retirement last year, Dr. Podgorsak's presence and his motivating force have been greatly missed in the Medical Physics Unit. The Ervin B. Podgorsak Scholarship is thus being established in an effort to sustain Dr. Podgorsak's legacy of teaching excellence by providing funding to exceptional students applying to study medical physics at McGill.

Dr. Gino Fallone (left) and Dr. Ervin Podgorsak (right)

About 80 alumni and friends attended the scholarship inauguration, including Dr. Podgorsak, his wife Marianna, his mother Gabriela, and other family members. The event was an informal gathering at the McGill Faculty Club which included nice speeches by Dr. Eduardo Franco, Chair of the McGill University Department of Oncology, Dr. Jan Seuntjens, director of the McGill Medical Physics Unit, Dr. John Schreiner, from Queen's University, Janet Marshall, Vice President at Varian, and Irena Gril, from the Slovenian Embassy in Ottawa. Dr. Podgorsak, of course, gave an inspiring speech that was followed by a long round of applause. The evening finished off with chatting and enjoying refreshments with old and new friends.

The Ervin B. Podgorsak Scholarship committee wishes to thank all who attended the inaugural event and contributed to the fund. As a result of the generous contributions received thus far, the fund is more than half way to reaching its initial fundraising goal and awarding the first recipient.

If you would like to learn more about the McGill Medical Physics Unit and the Ervin B. Podgorsak Scholarship please visit our website at **mcgill.ca/medphys**. There you can also find a link to make a tax-deductible contribution to the fund.

To see more pictures from the inauguration reception and to connect with other McGill friends and alumni, join us on Facebook!

facebook.com/groups/McGillMPU

International Day of Medical Physics – November 7, 2013

Parminder S. Basran
Chair, COMP Communications Committee
Senior Medical Physicist

BC Cancer Agency-Vancouver Island Centre, Victoria, BC

This year marks the inaugural proclamation of "International Day of Medical Physics" by the International Organization of Medical Physics (IOMP). November 7 marks the birthday of one of the pioneers in radiation and medicine, Marie Curie, and so it seems fitting for Medical Physicists to celebrate this day. Furthermore, this week in November is also CAMRT week (our Radiation Technology colleagues), and so there was plenty of opportunities for some festivities in our often busy and breathless clinical environments.

A variety of events were staged around the world (see http://www.iomp.org for details). This year the theme was "Radiation exposure from medical procedures, ask the Medical Physicist!" (http://www.iomp.org/?q=content/international-day-medical-physics). To quote some important points from Prof. John Damilakis' message (Chairman of the IOMP Education and Training Committee):

"As medical imaging technologies are evolving rapidly and pioneer radiotherapy techniques have considerably improved the outcome of cancer therapy, medical physicists become more and more important in the clinical environment. Medical physicists also play a key role in medical research and development of new medical technology. Another key activity of medical physicists is education and training of healthcare professionals in medical radiation protection and medical technology. Nevertheless, the general public is not aware of the critical role medical physicists play in providing services in medical, educational and research institutions. It is important to inform the public on the role and responsibilities of medical physicists and draw attention of the media to the important

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New COMP and CCPM Bylaws Approved by Industry Canada

The COMP and CCPM Boards are pleased to announce that both organizations have received notice from Industry Canada that they have been granted their continuance under the new Canada Not-for-profit Corporations Act and that their proposed new bylaws have been approved.

The Boards of both COMP and CCPM committed a considerable amount of time to develop the proposed bylaws and made a concerted effort to effectively communicate the proposed changes. The whole process was slow, deliberate and effortful and a lot was learned from going through the exercise.

The COMP and CCPM Boards also decided to take the opportunity to clarify the relationship between the two organizations. There is now a formal funding agreement in place that has been reviewed by legal counsel and approved by both Boards.

Thank you to all members who provided feedback, participated in the open teleconferences and exercised your vote. The future is bright for both organizations!

COMP OCPM

CALL FOR NOMINATIONS

The COMP Awards and Nominations Committee is responsible for presenting a slate of nominations for the COMP Board of Directors to ensure that the organization is governed with excellence and vision. There will be three openings on the Board of Directors as of the 2014 Annual General Meeting.

Vice-President

The Vice-President serves a two-year term and has the following responsibilities:

1. To work in conjunction with other Board members in the best interest of the organization.
2. To prepare for, attend, and actively participate in all Board meetings and relevant committee meetings. In-person meetings take place in November and at the Annual Scientific Meeting and there may be up to 4 teleconferences.
3. To oversee projects and assume responsibilities as required.
4. To represent the President in his/her absence.

While certainly not necessary, there is an expectation that the Vice-President would be willing to stand for the position of President when that position becomes available.

Treasurer

The Treasurer has the following responsibilities:

1. In collaboration with the Board and committee members, develop a budget for presentation to the Board for approval
2. Inform the Board of the financial status at Board meetings
3. Inform the membership of financial results and present the auditor's report at the AGM
4. Assist in the development of financial policies and procedures in collaboration with the Board
5. Oversee and monitor all financial transactions in collaboration with the management service
6. To prepare for, attend, and actively participate in all Board meetings and relevant committee meetings. In-person meetings take place in November and at the Annual Scientific Meeting and there may be up to 4 teleconferences.
7. Oversee projects and assume other responsibilities as required.

Directors-at-Large (2)

There will be two openings for Directors-at-large. Directors-at-large serve for a term of three years and have the following responsibilities:

1. To work in conjunction with other Board members in the best interest of the organization.
2. To prepare for, attend, and actively participate in all Board meetings and relevant committee meetings. In-person meetings take place in November and at the Annual Scientific Meeting and there may be up to 4 teleconferences.
3. To be prepared and willing to Chair a committee or lead special projects as required.

On the last point, at present Chairs are being sought for the Quality Assurance and Radiation Safety Advisory Committee (QARSAC) and the Imaging Task Force (ITF).

The nomination **must be accompanied** by a duly signed *Expression of Interest and Nomination Form* endorsed by no fewer than two (2) voting members of COMP. To access the nomination form, please visit **www.medphys.ca** or contact the COMP office at **admin@medphys.ca**.

Royal Society of Canada Elects David Rogers as Fellow

compiled from information on the Carleton University and Royal Society websites

Carleton U and Royal Society websites

The Royal Society of Canada (RSC) has elected COMP member David Rogers as a fellow in the Academy of Science, Mathematical and Physical Science Division. Dave received this honour as part of a cohort of 84 newly elected fellows. Election to the academies of the RSC is the highest honour a scholar can achieve in the arts, humanities and sciences.

"This well-deserved honour once more highlights Dave's tremendous contribution to medical physics in Canada and abroad. It further provides enhanced visibility and credibility to the research activities being conducted in the medical physics field", said Luc Beaulieu, COMP President.

A medical physicist, Dave has had a significant international impact on cancer radiotherapy. By developing freely-distributed computer codes which are considered the gold standard, he stimulated the wide-spread use of Monte Carlo codes in medical physics. A specialist in the measurement of radiation, he championed a new dosimetry protocol based on absorbed dose primary standards. This protocol is now the standard for external beam radiotherapy treatments throughout North America. He now holds a Canada Research Chair in Medical Physics and is a member of the Carleton Laboratory for Radiotherapy Physics within the Physics Department at Carleton University.

This year's new fellows were inducted to the academies of the RSC during the Induction and Awards Ceremony that took place on Saturday, Nov. 16, 2013 at the Fairmont Banff Springs in Banff, Alberta.

About the Royal Society of Canada:

Founded in 1882, the RSC comprises the Academies of Arts, Humanities and Sciences of Canada. Its mission is to recognize scholarly, research and artistic excellence, to advise governments and organizations, and to promote a culture of knowledge and innovation in Canada and with other national academies around the world.

International Day of Medical Physics – November 7, 2013

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role that medical physics play in the health care system."

IOMP recognizes the need to expose the general public to what medical physicists do (pun intended). This matches the opinions expressed by our membership in our survey a few years ago, and as such has become one of the focuses for the COMP Board activities.

To engage our membership, you've probably heard that the COMP Communications Committee decided to have a contest with our members. Briefly, the contest to provide an interesting short or long video on what International Day of Medical Physics means to you, or what you plan to do on this day. We had a lot of great feedback and received quite a bit of buzz on our website, Facebook and Twitter accounts. This year we decided to reward all entrants:

Longer than 10 second entry: TIE! Jake Van Dyke and Jerry Battista!

Shorter than 10 second entry: Samantha Harder + Samantha Lloyd from University of Victoria

Best Student Entry: Warren Campbell from University of Victoria

Congratulations to all the entrants and participants in our contest. To view all the entries, check out our Storify page (http://storify.com/medphysca/international-day-of-medical-physics-contest-entri) that summarizes all the submissions or our Facebook page.

As always we'd love to hear your feedback and comments on how we might better engage our medical physics community. Have a great holiday season.

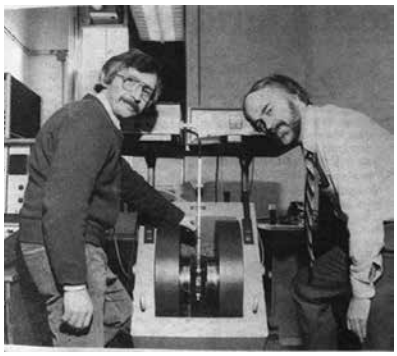
COMP Gold Medal Recipient – Dr. John Edward Aldrich

Jerry J. Battista
Director, Physics Research and Education

London Regional Cancer Program,
London, ON

I was asked to introduce this year's Gold Medal winner to members of the COMP-CCPM-CARO trio in attendance in Montreal. Although I have personally known John for several decades, I had to review his CV, and identify noteworthy accomplishments that had slipped from my memory. John obtained his Ph.D. degree from Nottingham University (1969) in the UK – that explains his unique Robin Hood accent. He then crossed the Atlantic to accept a post-doctoral fellowship at the Ontario Cancer Institute (to 1972) – the epicentre of medical physics at the time (and maybe even today). He again re-traversed the pond to work at the Royal Infirmary in Edinburgh Scotland – that modulated his accent further by adding a 'twang'. He oscillated back to Canada to head the radiotherapy physics group in Halifax (1974-1982), as in this photo, and then took the lead of their academic program (to 1989) to become Professor at Dalhousie University. In 1981, his interest began to shift to lower energies and the government of Nova Scotia asked him to measure diagnostic dose levels and establish provincial practice guidelines (i.e. Diagnostic Reference Levels).

After a Study Leave at the Royal Marsden (yes – another oscillation), he continued "R&D" in Halifax, until his move to Vancouver to become Head of the Basic Sciences Division, Department of Radiology. In B.C., he taught a wide range of students in medical physics, technologists, radiology residents and his course material is still available on-line to hospital staff through the Vancouver Coastal Health Authority Staff. That's it for the career path - he "retired" in 2011, but still runs a radiology consulting company (Radiology Matrix – gets a free advert here).



For fun, he sings in a choir with a world travel record, and modifies lyrics to well-known folk songs (like Monty Python's "I'm a Physicist and I'm OK" – just too risky to publish here).

In the mid 1980's John collaborated with a dentist (Dr. Barry Pass - not Joe Pass' brother) to establish a novel method of determining doses received by individuals use Electron Spin Resonance of dental enamel. John estimated the dose to atomic veterans and to exposed personnel at the Chernobyl nuclear reactor (see photo from "The Whole Tooth and Nothing but the Tooth" article, probably reflecting John's keen sense of humour). He has published over 90 articles and has made 100's of presentations to a wide range of audiences as an effective soft-spoken speaker on medical physics issues. His acceptance speech for the Gold medal was a prime example – a story about a radioactive gold ring, told with humour and intrigue. His most famous publication is the book ***A New Kind of Ray: The Radiological Sciences in Canada, 1895-1995*** (co-authored with Dr. Brian Lentle) that details the history of radiology, both diagnostic and therapeutic, in Canada. If you don't have, get it now through Amazon in time for Christmas and John will autograph it for you (radiologymatrix@shaw.ca).

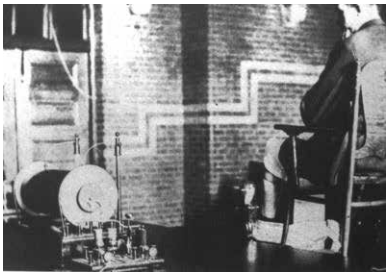
John continued with a strong interest in radiology, well before the *Image Gently* (for children) and *Image Wisely* (for senior citizens) movements in the US. In fact, he served the United Nations IAEA Task Force on Patient Dosimetry (2003-2006) – the first study to flag high doses used in CT scans. In the document *Health Canada Safety Code 35: Safety Procedures for the Installation, Use and Control of X-ray Equipment n Large Medical Radiological Facilities*, he's the lone medical physicist ever mentioned in a government document! John has served professionally in leadership roles on many organizations including CCPM, COMP, AECB, IAEA to name a few.

In summary, for his effective teaching style and scope, for his large imprint on radiology practice from sea to shining sea in Canada and onto international shores, for his creative works, for his professional service to our communities nationally and internationally, John certainly merits the 2013 Gold Medal.

John Aldrich's COMP/OCMP 2013 Gold Medal Talk

Thank you, Jerry, for your kind introduction. I would like to thank COMP, of course, for bestowing this honour on me: I am sure there are many other worthy candidates. As with so many of us, it is the colleagues that we work with in our clinics and hospitals that make everything possible. I have been able to work with a wide range of physicists, radiologists and radiation oncologists and other physicians and as you have heard - and even dentists! I think these are too many to name individually, and I am sure that many of them have gone on to do far greater things than I have. I need also to thank my wife and family, who have put up with my sometimes long and erratic hours!

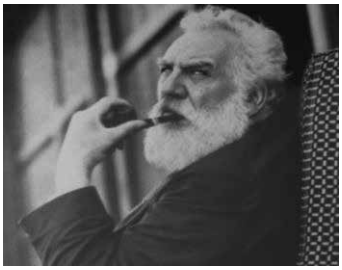
As Jerry has mentioned, in 1995 I co-authored the *History of the Radiological Sciences in Canada* in time for the centenary of the discovery of x-rays by Roentgen on November 25th 1895. When I looked back on my career, I realised there were unexpected coincidences between my medical physics experience and the history of radiation in Canada. I will tell you just a few of them.



A reconstruction of the first radiograph

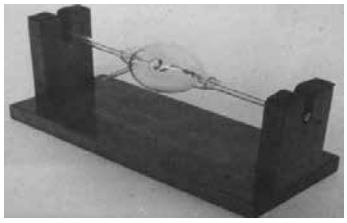
Firstly, it so happens that Montreal played a very important part in this history, because the first clinical x-ray in Canada was taken here at McGill on the 7th of February 1896, just a few days after the very first radiograph in North America. Even more interesting for medical physicists is that it was achieved through the co-operation of a physicist Dr. Cox and a surgeon Dr. Kirkpatrick. Dr. Cox would have been familiar with gas discharge tubes as most physics departments would have had them. Roentgen too, of course, was experimenting with gas discharge tubes, observing the colours and patterns produced inside the tube, when he happened to notice the fluorescence of a chemical outside the tube. As he did not know what these emanations were, he called them x-rays.

The first x-ray tubes did not operate as x-ray tubes do now. A small amount of gas was necessary in the tube in order to produce x-rays, and the positive ions bombarding the cathode were the main source of electrons which were accelerated to the anode where x-rays were produced. The tubes have been called 'Gas Tubes' for this reason. It was only in 1913 that William Coolidge invented the type of tube we use today which has a high vacuum and a heated filament cathode. The gas tubes were notoriously difficult to keep running and variable in output. The radiograph that Cox took needed an exposure of 45 minutes.



Bell in reflective mood

Alexander Graham Bell was already renowned as an inventor of the telephone when he started to become interested in x-rays in February 1896. He purchased his first x-ray tube and induction coil in April of that year. In 1893, Bell and his family had finished building a country residence in Cape Breton Nova Scotia, mostly to escape the hot humid summers in Washington DC where Bell usually worked. They often spent more than six months each year in Cape Breton. So it was in 1896 when he started studying x-rays at his Cape Breton laboratory. This is one of x-ray tubes he used (see image), now at the Bell Museum in Baddeck, Cape Breton. Bell and his assistant took some simple radiographs of laboratory objects and even irradiated his 'phone' to see if there was any response! He conjectured in his notebook that stereoscopic views would enable the body to been viewed in 3D. In 1898, the Curies discovered radium and Bell was one of the first to suggest sealing radium in a glass tube for insertion directly in the tumour. More of that later!

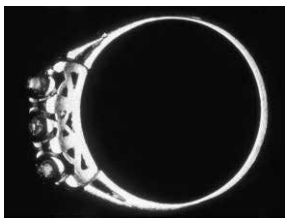


One of Bell's x-ray tubes

On December 6th 1917, Bell was woken by a large explosion and the rattling of the windows in his Cape Breton home. The family soon heard that the explosion had been caused by the collision of two munitions ships in Halifax harbour. Nearly 3000 tons of TNT had been detonated, killing 2000 people laying waste to much of the city - the Halifax Explosion. Bell arranged for local workman to go and help in the reconstruction efforts, and sent clothes and blankets. In Halifax the persons in charge of the relief efforts at the Victoria General Hospital was Dr. Charles Puttner, who was the Acting Director of the hospital, as the Director was away at a conference. Dr. Puttner was in Charge of the Pharmacy and the X-ray Department .

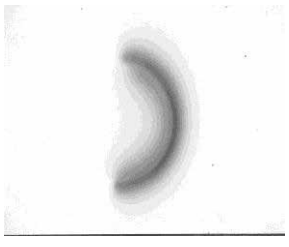
Forty seven years later my wife and I both came to work at the VGH, both of us in departments that Dr. Puttner had headed all those years ago. The Radiotherapy Department was in a state of transition. Although there were two cobalt units, most other aspects of therapy had not changed for 20 years, including all intracavitary and interstitial treats, which were performed using radium tube and needles.

The person who looked after the radium was called the Radium Curator. There was, of course, inevitable radiation exposure, and the radium was very valuable. A lot of precision and manipulative skill was required and the Curator had to know exactly where all the sources were located. Because of their arcane skills, Radium Curators were highly regarded, but sometimes had an even higher opinion of themselves. The one in Halifax was one such. He was an elderly man who had trained in the UK, and his job as Radium Curator was his life. He was in the hospital from before 7 to after 11; took all his meals there. He may even have slept there sometimes. When staff had to come in to the hospital after hours he would suddenly spookily appear; he was almost universally disliked. Soon after I arrived he faced compulsory retirement, and, as I was English, I was asked to try to convince him that he actually had to stop working. This was tricky but eventually I managed this. A retirement tea was held for him as was the practice at the time. Many of the radiotherapy staff went, more to reassure themselves that he was actually leaving than for goodwill. But also there were many nursing staff from the radiotherapy wards. They all spoke about the charming Radium Curator - how he would take them flowers every week, and bring presents to them all on their birthdays and at Christmas. Such a different experience! After this retirement dinner he still did not actually move his personal effects out for 6 months! Soon we replaced the radium with manual afterloading cesium sources, then LDR and HDR as time progressed. I thought I had seen the last of radium, but it was not to be...



The ring

In 1988, a dermatologist colleague came to the department concerning a patient who had had a recent history of irritation and erythema on her ring finger which was refractory to treatment or removal of the ring. His biopsy revealed a well differentiated squamous cell carcinoma. He had read of jewellery sometimes being radioactive so asked if I could find anything out. Firstly we placed the ring on a film overnight and what we found was that only the band was radioactive. We estimated the surface dose using film to be 1 Gy per week. To confirm this we obtained TLDs from AECL, which gave a dose of 2.4 Gy per week. We estimated the dose to the skin of her finger to be 4500 Gy. In the 1950s, when a ring was purchased it was the common practice for the customer to choose only the setting. The band would be made by the jeweller from a spool of gold wire and it must have been this spool of wire which was radioactive. Up until the 1940s, radon was sealed in thin gold capillaries for interstitial treatments, and, as the half-life of radon is 3.8 days, after a week the sources are of no further therapeutic value. Radon decays through a number of radioactive isotopes eventually leaving lead-210 (half-life 21 years). It seems that these gold capillaries were eventually recycled because of the value of the gold, and served to contaminate the gold during refining.



Autoradiograph of the ring

The antique x-ray unit

The unit in a 1904 catalogue

The x-ray tube approx 1906

As you heard, I moved to Vancouver in 1993 and after about 7 years there I received a call from the Hospital Foundation asking if Radiology would like an old x-ray unit. Someone was clearing out the personal effects of their father. I agreed to go, as it was very close to where we lived at the time in North Vancouver. I was taken to a garage where everything was gathered. There were jars of chemicals, acids, solvents - I should have been wearing a hazmat suit really. The daughter said her father collected things!! There was a lot of junk, but in the centre of the garage was indeed some electrical equipment, including the x-ray unit and an x-ray tube, which she said was from the 1930s as the unit had 1935 marked on it. On birthdays and Christmas, her father often had the unit producing sparks and getting the x-ray tube to light up! I knew immediately that the induction coil and the x-ray tube were made before 1913. I decided to advise the hospital Foundation to accept the unit, even just to stop her using it again! Recently I have contacted museums and collectors in the US where the system was made. As far as I can tell the induction coil unit is the only one of its kind still in existence.

It is truly remarkable that the unit and the x-ray tube survived nearly 120 years!!

COMP OCPM

Gold Medal Award
Call For Nominations

The COMP Gold Medal will be awarded to a member of COMP (or retired former member) who has made an outstanding contribution to the field of medical physics in Canada. An outstanding contribution is defined as one or more of the following:

1. A body of work which has added to the knowledge base of medical physics in such a way as to fundamentally alter the practice of medical physics.
2. Leadership positions in medical physics organizations which have led to improvements in the status and public image of medical physicists in Canada.
3. Significant influence on the professional development of the careers of medical physicists in Canada through educational activities or mentorship

The Gold Medal is the highest award given by the Canadian Organization of Medical Physicists and will be given to currently active or retired individuals to recognize an outstanding career as a medical physicist who has worked mainly in Canada. It will be awarded as appropriate candidates are selected but it will not generally be given more than once per year.

Nominations for the 2014 medal are hereby solicited. Nominations are due by **February 7th, 2014** and must be made by a Full Member of COMP. Nominations must include:

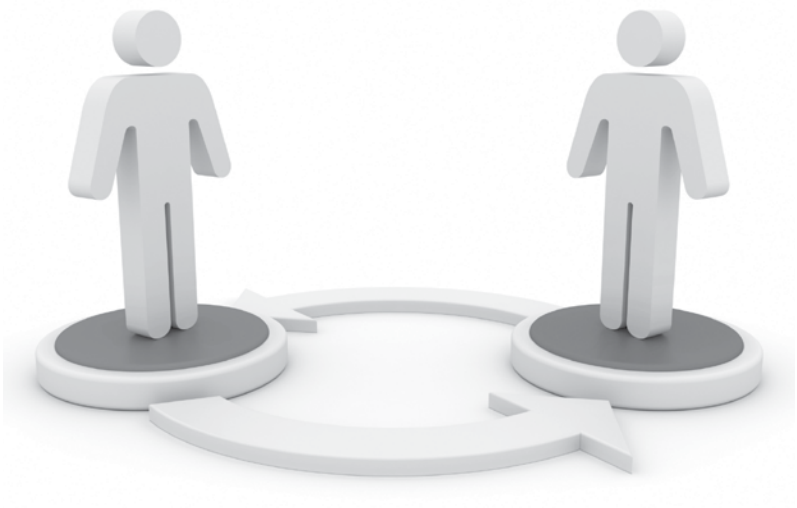
1. the nominator's letter summarizing the contributions of the candidate in one or more of the areas listed above;
2. the candidate's CV;
3. the candidate's publication list (excluding abstracts) which highlights the candidates most significant 10 papers;
4. additional 1 to 2 page letters supporting the nomination from three or more members of COMP.

Please forward nominations electronically to Nancy Barrett at the COMP office (preferably in pdf format, nancy@medphys.ca).

A committee of COMP members appointed by the COMP Board will consider nominations and recommend award winners to the COMP Board by April 30th, 2014. The COMP Board makes the final decision and the recipient will be notified by May 31st, 2014 to give time to arrange to be at the COMP annual meeting in Banff.

Candidates selected for the medal will be invited to attend the COMP Annual Scientific Meeting where the award will be presented by the COMP President. Travel expenses will be paid for the medal winner. The medal winner may be asked to give a 30 minute scientific presentation at the COMP meeting in addition to a short acceptance speech when the medal is presented.

Medical Physics Summer Exchange Program – Call for Applications



The Student Council (SC) of the Canadian Organization of Medical Physics (COMP) is pleased to announce the 2014 Medical Physics Summer Exchange Program. This program will provide an ideal environment for the exchange of new ideas, confirmation of strengths and recognition of work opportunities among Cancer Centres in Canada and abroad. It will also allow medical physics departments nationwide to meet medical physics students in Canada for future references in residency or working positions.

APPLICATION AND DEADLINE

* Applications must be submitted by email to **cs@medphys.ca**

* The deadline for applications is **January 31st, 2014**. Late applications will not be considered

CALENDAR OF ACTIONS

* Application Deadline → January 31st, 2014

* Notification of Decisions → March 15th, 2014

* Beginning of the Exchange Program → July, 2014

* Report submission → September 31st, 2014

Further details regarding the content of the application, eligibility criteria and selection procedure can be found at **www.medphys.ca** or find us on Facebook-**COMP Student Council**.

DIVISION HEAD, MEDICAL PHYSICS

The Department of Oncology, Faculty of Medicine, University of Calgary in conjunction with the Alberta Health Services CancerControl Alberta, Tom Baker Cancer Centre, Calgary Zone and the Southern Alberta Cancer Research Institute invite applications for a full-time academic leader within the discipline of Medical Physics at the Associate Professor level or higher. Duties include coordinating and leading the Division of Medical Physics with its 10.5 faculty members to achieve excellence, in research, teaching and patient care.

The Division of Medical Physics is one of ten divisions within the Department of Oncology at the University of Calgary. Physicists within the division are funded by Alberta Health Services and provide clinical physics services at the Tom Baker Cancer Centre (TBCC). Approximately 4,000 patients per year receive radiotherapy on one of the ten megavoltage units at the TBCC. The current therapy equipment includes 9 Varian linear accelerators (one is a TrueBeam and a second is in the process of being replaced with a TrueBeam) and a Cobalt unit. All linear accelerators have multileaf collimators and four (soon 5) have On-Board Imaging. Treatment preparation takes place on one of two CT simulators or a conventional simulator with plans generated by the Eclipse treatment planning system. There are fully-equipped Electronics and Machine shops and dedicated IT support for ARIA and Eclipse applications. The TBCC supports active clinical programs in IMRT, HDR and LDR brachytherapy, stereotactic radiosurgery and IGRT. There are currently 10.5 faculty physicist positions at the TBCC within a total Physics Department staff of 25. There are currently 10 graduate students and two residents.

The division has a strong track record of research and education, and has CAMPEP accredited programs for Medical Physics Graduate Student and Medical Physics Resident education that are delivered jointly through a structured agreement from the Department of Physics and Astronomy. The TBCC faculty teaches in several courses in that department.

The Tom Baker Cancer Centre is a component of a provincial program of cancer control through Alberta Health Services CancerControl Alberta. It is a tertiary referral centre and the main cancer treatment, research and education facility for southern Alberta. Through affiliations with the University of Calgary including the Southern Alberta Cancer Research Institute, and the Calgary Zone, postgraduate training programs in most oncology disciplines are provided. The Southern Alberta Cancer Research Institute provides a strong focus for basic research.

Alberta Health Services is planning a new, free-standing cancer centre in Calgary. Alberta Health Services anticipates substantial growth in oncology services in Calgary. There is an opportunity for the new leader to develop and implement an innovative vision for Medical Physics within the overall cancer services mandate for the new state-of-the-art cancer centre that will include dedicated in-patient units, a disease-site oriented ambulatory care unit, wet and dry lab research facilities, rapid assessment units for selected cancers, and dedicated diagnostic imaging and diagnostic laboratory facilities.

Increasing scholarly capacity will help the University of Calgary meet its strategic goal to become one of Canada's top five research universities by 2016, where innovative teaching and groundbreaking research go hand in hand, and where we fully engage the communities we both serve and lead. The strategy is called Eyes High, inspired by the university's Gaelic motto, which translates as 'I will lift up my eyes.'

The Calgary Zone comprises four teaching hospitals situated in the City of Calgary, and serves residents of Southern Alberta, British Columbia and Saskatchewan. The Department of Oncology is part of the rapidly growing Faculty of Medicine. Calgary is a vibrant, multicultural city (population ~1.3 million) near the Rocky Mountains, Banff National Park and Lake Louise.

Qualifications include a PhD in Medical Physics or Physics, at least 10 years of clinical and leadership experience following the completion of training as a medical physicist, membership in the Canadian College of Physicists in Medicine (or equivalent), and a record of effective teaching and productive research. Recent previous experience in a leadership role is an asset but not mandatory. A strong commitment to the highest clinical standards and highly developed interpersonal, teamwork, organizational and leadership skills are also required.

Review of applications will begin February 1, 2014 and continue until the position is filled. Please submit a curriculum vitae and a statement of career goals together with the names of three referees to:

Dr. Peter S. Craighead
Head, Department of Oncology
Medical Director, Tom Baker Cancer Centre
1331 - 29 Street N.W.
Calgary, AB, Canada T2N 4N2
oncology@ucalgary.ca

All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority. The University of Calgary and Alberta Health Services respects, appreciates, and encourages diversity.

Ad No.: 99-670
Journals: COMP/CCPM (online and Interactions newsletter (info on medphys.ca)), AAPM (careers.aapm.org), CAUT online (30 days)
Format: web
Charge Costs to: 10-28010-60305
Recovery: 100% AHS
PPC Request: 13-004

New COMP Members

Please welcome the following new members who have joined COMP since our last issue:

Last Name	First Name	Institute/Employer	Membership Type
Beaudry	Joel	BC Cancer Agency, Vancouver	Student
Bojechko	Casey	University of Calgary	Student
Burke	Benjamin	Cross Cancer Institute	Full
Bush	Karl	Stanford University	Full
Capaldi	Dante	Robarts Research Institute	Student
Clark	Hal	BC Cancer Agency, Vancouver	Student
Elshahat	Bassem	University of Massachusetts Lowell	Student
Fatemi-Ardekani	Ali	Eastern Health	Full
Fortin	Dominique	University of Victoria	Student
Gaul	Joshua	Windsor Regional Hospital	Student
King	Brian	Virginia Commonwealth University Health System	Full
Malkov	Viktor	Carleton University	Student
Oliver	Patricia	Carleton University	Student
Parsons	Cathryn	Dalhousie University	Student
Simard	Dany	CHUM - Hôpital Notre Dame	Full
Watt	Elizabeth	Tom Baker Cancer Centre	Student

Dates to Remember

5th Annual Canadian Winter School
January 26th – 30th, 2014
Quebec City, QC

Deadline for Medical Physics Summer Exchange Program
January 31st, 2014

Deadline for Gold Medal and Sylvia Fedoruk submissions
February 7th 2014

InterACTIONS Spring Issue Deadline
March 1st, 2014

Deadline for applications for the Harold Johns Travel Award
April 11th, 2014

Deadline for FCOMP nominations
April 30th, 2014

Deadline for COMP Vice-President and Board of Directors nominations
April 30th, 2014

60th Annual Scientific Meeting
July 9th – 12th, 2014
The Banff Centre, Banff, AB

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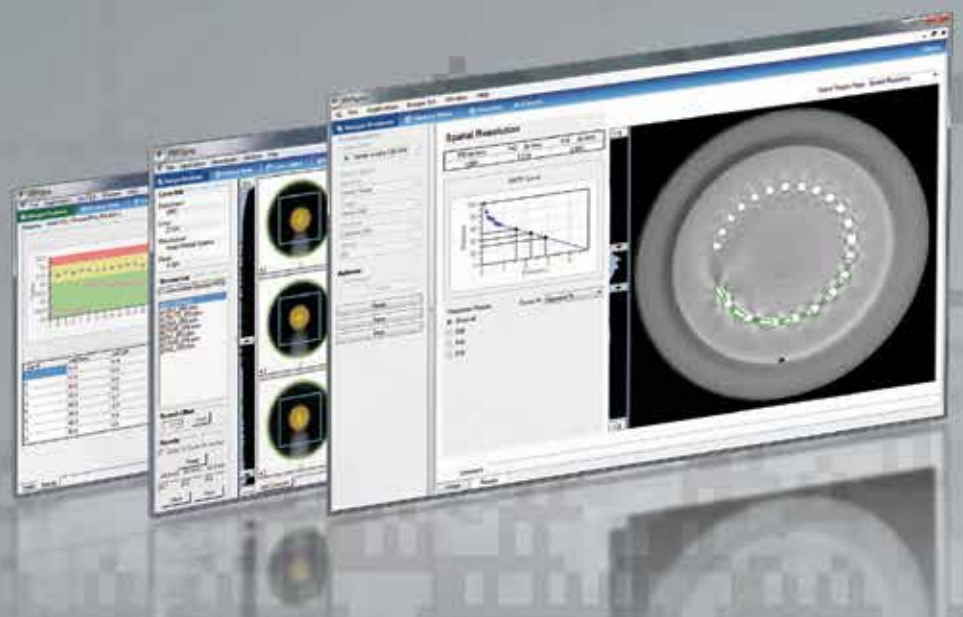

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